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Rice Mill Industry in Bangladesh
Surviving the Hunger Games: Tips and Tricks for When Hunger Strikes

Editor
Mr. Arifur Rahman, FCCA, FCA, CSAA
Chief Executive Officer

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Emerging Credit Rating Limited gets new CEO The Board of Directors of Emerging Credit Rating Limited promoted Mr. Arifur Rahman, FCCA, FCA, CSAA to the rank of Chief Executive Officer (CEO) of the company as on March 1st, 2023.

ECRL celebrated the picnic day out at New Dhaka in Resort located at Keraniganj.

ECRL team celebrated International Woman Day on 8th March, 2022

Rice Mill Industry in Bangladesh

1. Introduction

Rice is the staple food of about 135 million people in Bangladesh (BRKB, 2022), and the country produces about 36 million tons of rice annually using 11.5 million hectares of land (USDA, 2022). It accounts for over 70% of the country's total calorie intake, with per capita consumption averaging around 181.3kg per year, making it one of the highest in the world (The Business Standard, 2020; Zaman et al., 2001). Rice cultivation dominates about 75% of the total cropped area, and over 80% of the total irrigated area is planted for rice in Bangladesh (BRKB, 2022). Three primary types of rice, namely Aus (summer), Aman (winter), and Boro (spring) are cultivated in the country. According to Bangladesh Bank estimation, during FY2022, the combined production of Aus (3 million metric tons), Aman (14.96 million metric tons), and Boro (20.19 million metric tons) paddies can exceed 38.14 million metric tons by using 28.89 million acres of land (Bangladesh Bank, 2023).

Upon harvesting paddy from fields, it must undergo processing before it can be consumed. The process of rice processing comprises parboiling, drying, and milling and can be carried out both on a small scale at home and on a large scale at rice mills. Processing paddy at home considered the non-commercial sector of milling represents the oldest and nearly obsolete form of rice processing in Bangladesh. After the paddy has been parboiled and dried, this method involves processing it using Dheki.[1]

In Bangladesh, rice mills are the primary location for paddy processing and milling, classified as commercial milling centers.[2] Commercial mills are of two types, one of which purchases paddy directly or through agents from local marketplaces or 'hats' and supplies the finished rice to wholesalers and assemblers in major cities. On the other hand, paddy processed at home is milled into finished rice using small husking machines in nearby village marketplaces, which also provide husking services to small itinerant traders. Additionally, vendor-husking machines are now available in rural areas, where these vendors travel from house to house in the villages, offering husk paddy for the villagers at a set price right in the farmyards of their customers.

The rice mill industry in Bangladesh is a significant sector that plays a crucial role in the country's economy (Rahman et al., 2017). Bangladesh is one of the largest rice-producing countries in the world, and the rice mill industry is the backbone of the agriculture sector, employing millions of people (48% of rural employment). The number of commercial rice millers in Bangladesh has been growing steadily. An increasing trend of mechanical process units in the market has gradually replaced the traditional method of rice processing. These commercial processing units have significantly contributed to the rice marketing system, and it has become a vital part of the country's agricultural sector. The industry comprises thousands of small and large rice mills, and it is estimated that there are over 18,700 rice mills in the country (IDLC, 2021). However, this study aims to provide an in-depth understanding of rice milling in Bangladesh.

[1] The Dheki is a wooden tool, approximately 2.5 meters in length and 20 centimeters in width, that is balanced on a bamboo fulcrum like a seesaw. Villagers widely use it in rice husking. During the process, women push down on one end of the Dheki with their foot, causing the other end, fitted with a wooden peg, to rise and fall on the rice grains placed in a hole scooped out of the earthen floor of the kitchen. This pounding action removes the outer husks, leaving the inner kernels intact (Rahman et al., 2017).

[2] Commercial milling systems mill the paddy in stages and consequently are called multi-stage or multi-pass rice mills. Commercial rice milling aims to diminish mechanical pressures and heat buildup in the grain, thereby decreasing grain breakage and producing uniformly polished grain (Rice Knowledge Bank, 2017).

2. Types of Rice Mills

In Bangladesh, rice mills are typically categorized based on their manufacturing process. Three main types of rice mills are found in the country: Automated Rice Mills, Semi-Auto Rice Mills, and Traditional Husking Mills. This classification is based on the level of automation and mechanization involved in the rice milling process. Automated Rice Mills are equipped with advanced machinery and technology for processing rice. Semi-Auto Rice Mills has a moderate level of automation, while Traditional Husking Mills rely on manual labor and traditional methods for husking rice. Each type of rice mill has its own unique characteristics and level of technological advancement in the rice milling industry in Bangladesh. Overall, the classification of rice mills in Bangladesh is based on the extent to which modern technology is utilized in the rice milling process.

2.1 Automatic Rice Mill

An Automated Rice Mill employs cutting-edge technology to process paddy. The process begins with paddy being prepared and soaked in hot water, followed by parboiling under pressure through steaming. The steamed paddy is then dried in a dryer and husked using a rubber roll or disc huller. A paddy separator separates unhusked paddy from the brown rice, which is then recycled back to the huller. The brown rice is further polished using a Cone and an Engleberg roller polisher. The entire process is automated, utilizing advanced machinery and equipment to ensure efficient and high-quality rice production.

2.2 Semi-Automatic Rice Mill

A Semi-Automatic Rice Mill operates with mechanical processes and does not involve drying. In this type of mill, parboiled paddy is manually dried on the floor under sunlight by spreading and stirring, then fed into the mill. The process includes paddy storage, cleaning, parboiling, natural drying, milling using a rubber-roll huller, rubber polishing, paddy separation, stone separation, black rice sorting, cracked and discolored grain sorting, sifting for broken rice, aerating, bagging, and weighing. The result is high-quality rice that is precisely graded. Additionally, husk and bran are obtained separately in the process, which can be utilized in briquette rice husk and extracting edible oil from bran, making it a more resourceful approach. Although the process is semi-automatic, it still incorporates modern machinery to achieve efficient rice production with consistent quality.

2.3 Husking Mill

The husking mill follows the traditional method of rice milling, where rice is boiled and dried manually, similar to the semi-automatic process. In husking mills, some polishing is done in addition to husking, typically by passing the rice through hullers multiple times to grind off some of the bran after husking. These mills typically produce four types of products: milled rice, broken rice, rice bran, and husks. Although the process is manual and traditional, it still yields usable rice products with varying degrees of polishing and bran content.

3. Establishment and Operational Cost of a Rice Mill

The establishment expenses in setting up a rice mill are typically associated with acquiring land, constructing buildings, and procuring machinery. However, the total cost incurred may differ based on the scale and nature of the business. Consequently, the current section outlines the minimum capital and expenditure needed to establish an automatic and semi-automatic rice mill.

3.1 Automatic Rice Mill

3.1.1 Establishment Cost

3.1.1.1 Land

To establish a rice mill with a production capacity of 50 tons, a land area of 100 decimal is required. Alternatively, a land area of 150 decimal is necessary to set up a rice mill with a production capacity of 100 tons. It should be noted that expanding the land area may lead to more efficient operations, resulting in an increased production capacity (CBECL, 2012). However, the cost of land acquisition may vary depending on the location and other relevant factors.

3.1.1.2 Infrastructure Development

3.1.1.2.1 Building Structure Development

An automatic rice mill structure can be constructed using bricks, steel, or a combination thereof in an automated manner. The total cost of constructing the building is primarily contingent upon the prevailing market prices and quality of the raw materials used. The cost of establishing the structure may fluctuate depending on the geographical location and regional factors. Therefore, it is imperative for an entrepreneur to meticulously compute all material costs in advance prior to commencing the construction of the rice mill. Additionally, conducting a thorough analysis of the costs associated with raw materials is essential for proper planning and efficient execution of the mill construction project.

3.1.1.2.2 Setup Cost of Machinery

An automated rice mill plant comprises four distinct sections: the Parboiling Section, Drying Section, Milling Section, and Bagging Section. Each of these sections requires specific types of machinery tailored to their respective stages of operation. Furthermore, the cost of these machines is contingent upon the particular stages of production they are intended for. A comprehensive overview of the types of machinery associated with each stage of production can be found in Table 1.

The average price of the standard boiler machine is about BDT 6.3 million to BDT 10.5 million, which has a per day capacity of boiling (assuming 16 hours) 50-ton to 100-ton paddy. Nevertheless, the cost of the Japanese and Chinese brands is lower than the Korean brand. However, almost 90 percent of parboiling rice milling machinery in Bangladesh is generally imported from India (CBECL, 2012), whereas machines from Japan and Germany are better in quality but more expensive than Indian machinery. The average cost of an Indian machine for the parboiling section is about BDT15.7 million for 100 tons daily. Another Indian machine for the drying section has an average 100 tons per day capacity costing about BDT15.7 million, whereas a Chinese brand costs only BDT 5.5 million. However, 90 percent of Milling and Bagging machinery is imported from China. The price of the Chinese milling machine is about BDT20 million to BDT26 million for 100 tons per day capacity.

The standard boiler machine has an average price range of BDT 6.3 million to BDT 10.5 million, with a daily capacity of boiling 50-ton to 100-ton paddy for approximately 16 hours. However, it should be noted that the Japanese and Chinese brands tend to be more affordable compared to the Korean brand. Despite this, a majority of parboiling rice milling machinery in Bangladesh, accounting for around 90 percent, is imported from India (CBECL, 2012). Although machinery from Japan and Germany are known for their higher quality, they also come with a higher price tag compared to Indian machinery. For instance, the average cost of an Indian machine for the parboiling section is approximately BDT 15.7 million for a daily capacity of 100 tons. On the other hand, the drying section machine from India with

the same capacity is also priced at BDT 15.7 million, while a Chinese brand costs only BDT 5.5 million. Additionally, 90 percent of the milling and bagging machinery in Bangladesh is imported from China, with the price of a Chinese milling machine ranging from BDT 20 million to BDT 26 million for a daily capacity of 100 tons.

Similarly, color sorter machines are also considered expensive. The Indian color sorter machine is priced between BDT 6.55 million to BDT 7.86 million and is primarily used to separate black and weak rice. This machine operates with the help of cameras, and the number of cameras required depends on the number of channels.

Table 01. Machinery Cost (Taka in a million) of the Automatic Rice Mill

Particular	Japanese Brand	Chinese Brand	Indian Brand	Korean Brand
Boiler	6.29-6.55	6.29-6.55	0	6.6-10.5
Dryer	17.83	5.5	15.7	9.4
Parboiling	19.66-24.90	10.22-11.8	15.7	4.2
Milling	45.87-52.43	19.66-26.11		13.1-26.2
Color Sorter	14.42	6.55-7.86	5.9-7.9	9.2
Power station	2.88	2.88	2.9	3.9-5.2

Source: Bangladesh Rice Research Institute and ECRL primary survey (April 2023)

3.1.1.3 Operational Cost

3.1.1.3.1 Labor Cost

The labor cost is a critical component of variable expenses for an organization. A typical automatic rice mill requires 20-25 workers, including permanent (10-15) and temporary (10-12) employees. The number of laborers required depends on the company's size and production capacity. The permanent workers receive a monthly salary of BDT 15,000 to BDT 20,000, while the temporary workers receive an average daily wage of around BDT 500 to BDT 700. Although temporary workers tend to earn higher wages compared to permanent workers, their job security is less stable. It should be noted that the wage rates in an automatic rice mill are subject to variation depending on various factors, such as the mill's location, labor demand, and availability.

3.1.1.3.2 Utility Cost

The utility is an additional vital variable cost contingent on the production unit. In particular, the utility cost for an automatic rice mill is determined by its monthly production volume and other correlated factors, such as expenses related to electricity, fuel, gas, water, and other bills.

3.2 Husking and Semi-Automatic Rice Mills

3.2.1 Establishment Cost

Per the statements of the husking mill proprietors, establishing a husking mill necessitates an average capital investment ranging from BDT 5.0 million to BDT 7.0 million, along with the requirement of 100-decimal land. The majority of this land is required for the drying of paddy. On the other hand, the cost of establishing a semi-automated rice mill in Bangladesh varies based on location, mill size, and machinery quality. The capital investment typically required more than BDT 7.0 million. Land area requirements depend on production capacity, ranging from 100 to 150 decimals for small-scale mills and up to 300 decimals for larger mills.

The primarily fixed costs are the land and machinery costs for hacking and semi-automated mills, with the former being the higher cost. The machinery cost, on the other hand, will vary based on the location and region. In the case of a semi-automated rice mill, the machinery needed includes a paddy cleaner, de-stoner, husker, separator, polisher, color sorter, and packaging machine, with average machinery costs ranging from BDT 3.0 million to BDT 4.0 million. However, the prices of the husking and some semi-automated mills' machinery are shown in Table (2).

Table 02. Machinery Cost (Taka in a million) of Husking and Semi-automatic Rice Mills

Particular item	Price
Saddler	0.13
Rice filter	0.13-.2
Garden polisher	0.1
Milling	0.2
Power station	0.65-0.91

Source: ECRL primary survey (April 2023)

3.2.2 Operational Cost

In general, it can be observed that husking mills are characterized as labor-intensive. This implies that husking mills necessitate a greater amount of labor compared to automatic and semi-automatic rice mills. Specifically, an average of 30 workers are required to operate a husking mill, with the corresponding daily wage rate averaging BDT 500. It should be noted that the wage rate for husking mills is similar to that of automatic rice mills, although it may differ depending on factors such as the location of the mill, market demands, and the availability of laborers.

In contrast, semi-automated mills require fewer laborers than traditional mills, with small-scale mills typically employing 5 to 10 permanent laborers and larger mills requiring up to 10 to 20 permanent laborers. Regarding utility costs, husking mills are more cost-effective than automatic rice mills due to their lower production output and reliance on manual labor.

4. Production Process

4.1 Production Process of Automatic Rice Mills

The modern rice milling facility is available in different configurations, and the milling components exhibit variations in their designs and performance. Typically, a modern rice mill comprises three main stages: the husking stage, the whitening-polishing stage, and the grading, blending, and packaging stage. Various adjustments, such as rubber roll clearance, separator bed inclination, and feed rates, are automated in modern rice mills to ensure maximum efficiency and ease of operation. Furthermore, gauges are incorporated into the whitener polishers to detect the current load on the motor drives, indicating the grain's operating pressure. This provides a more objective approach to setting milling pressures on the grain (Rice Knowledge Bank, 2017). Table 3 outlines the different processes involved in modern rice milling.

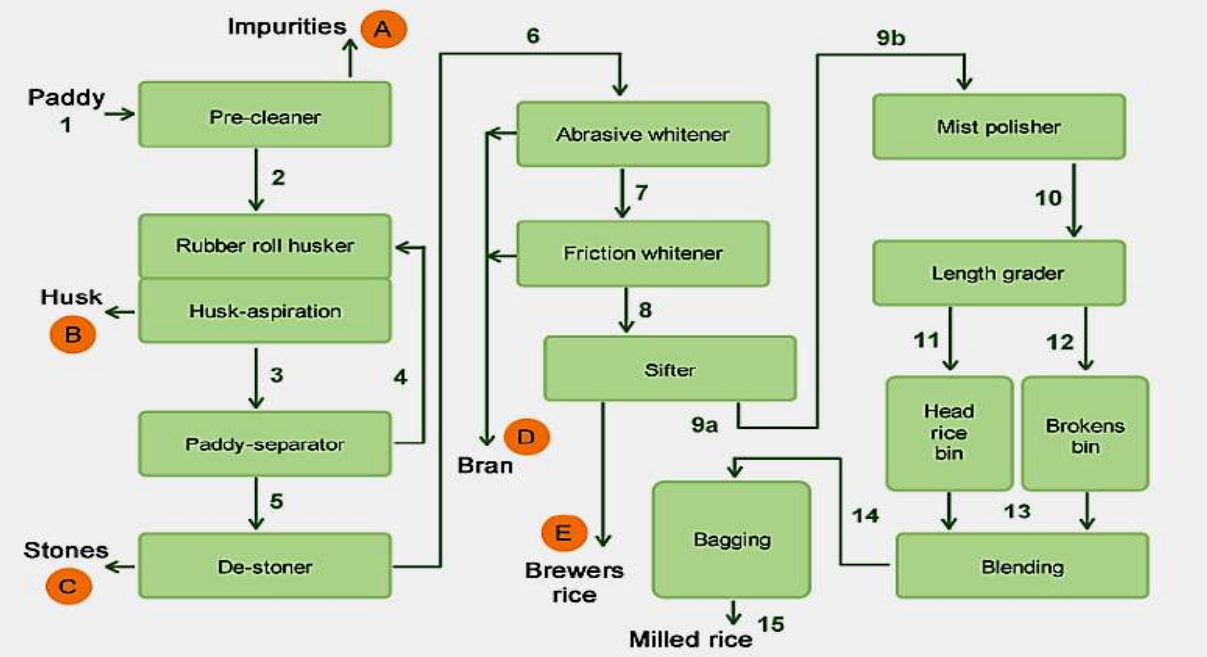
Table 03. The Modern Rice Milling Process

Stage	Function
Pre-cleaning	removing all impurities and unfilled grains from the paddy.
Husking	removing the husk from the paddy.
Husk Aspiration	separating the husk from the brown rice/unhusked paddy.
Paddy separation	separating the unhusked paddy from the brown rice.
De-stoning	separating small stones from the brown rice.
Whitening	removing all or part of the bran layer and germ from the brown rice.
Polishing	Improving milled rice's appearance by removing remaining bran particles and polishing the milled kernel's exterior.
Sifting	separating small impurities or chips from the milled rice.
Length grading	separating small and large broken from the head rice.
Blending	mix head rice with a predetermined amount of broken, as the customers require.
Weighing and bagging	preparing milled rice for transport to the customer.

Source: Rice Knowledge Bank

Various configurations are utilized in the production process of modern rice mills. A typical modern rice mill's layout and flow can be illustrated by the flow diagram presented in Figure 2.

Figure 01. Flow Chart of Auto Rice Milling



Source: Rice Knowledge Bank

According to the Rice Knowledge Bank, the description of the flow of materials and processes is given below:

1 - Paddy is dumped in the intake pit feeding the pre-cleaner

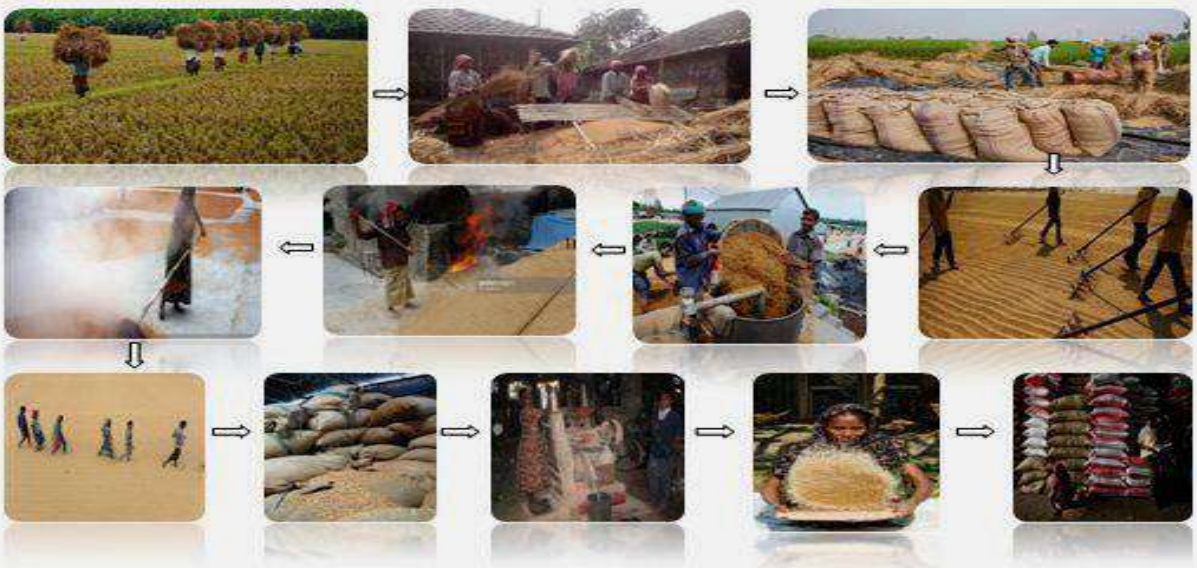
A - straw, chaff, and empty grains are removed

2 - pre-cleaned paddy moves to the rubber roll husker:
B - husk removed by the aspirator
3 - a mixture of brown rice and unhusked paddy moves to the separator
4 - unhusked paddy is separated and returned to the rubber roll husker
5 - brown rice moves to the de-stoner
C - small stones, mud balls, etc., removed by de-stoner
6 - de-stoned brown rice moves to the 1st stage (abrasive) whitener
7 - partially milled rice moves to the 2nd stage (friction) whitener
D - Coarse (from the first whitener) and fine (from the second whitener) bran removed from the rice grain during the whitening process
8 - milled rice moves to the sifter
E - Small broken/brewer's rice removed by the sifter
9a - (for simple rice mill) ungraded, milled rice moves to the bagging station
9b - (for more sophisticated mill) milled rice moves to the polisher1
10 - Polished rice will move to the length grader
11 - Head rice moves to head rice bin
12 - Broken rice move to broken rice bin
13 - The pre-selected amount of head rice and broken rice move to the blending station
14 - Custom-made blend of head rice and broken rice moves to the bagging station
15 - Bagged Rice moves to the market

4.2 Production Process of Husking Mills

Like an automatic rice mill, a husking mill's production process comprises various stages. However, unlike an automatic rice mill, most of the work involved in a husking mill is carried out manually. A typical flow diagram of the stages involved in a husking mill's production process is depicted in Figure 3.

Figure 02. Husking Mill Flow Chart



Source: ECRL Primary Survey (Rahman et al., 2017)

After harvesting, the crops are brought for threshing to separate the grains from the straws. It can be done through machines or manually by farmers. The next step is cleaning. Cleaning grains after harvesting is essential as it removes unwanted materials from the grains. Drying rice grains as soon as possible after cleaning (ideally within 24 hours) (RKB) is vital. Farmers dry grains manually under the sun in the Chatal or open field. Then, farmers boil rice grain. Then again, the farmers dry the boiled grains under the sun. The last process includes milling, sorting (de-stoning), and packaging the milled rice.

5. Difference Between Traditional and Modern Mill

The milling process of traditional and automatic mills significantly differs. These are explicated below in Table 4.

Compared to the traditional rice mill, the automated rice mill is a superior system for processing rice due to its cleanliness and high-quality output. The automated process involves significantly fewer stones than the traditional process. Additionally, automated rice processing mills can produce more than twice the amount of processed rice as conventional mills, with a capacity of over 2 tons per hour, while traditional mills can produce only 0.6 to 1 tons per hour. Moreover, automated rice mills require more power, with a range of 65-100 horsepower, as opposed to traditional mills that require only 30-40 horsepower.

Furthermore, traditional rice mills require 2 to 3 separate operations for cutting and drying processed rice, whereas automated rice processing mills can accomplish these tasks in a single process. In husking mills, grading and brand separation are performed manually, while in automatic mills, grading and brand separation are automated (Table-4). The automated rice mills can also cut the rice into different sizes, such as Miniket, Najir Shail, Pajam, Katari Bhog, Chinigura, etc., which is impossible with traditional rice mills. Rice milled in automated machines takes only 12-15 minutes to cook, whereas traditionally, milled rice takes 20-25 minutes to cook.

Additionally, the by-products from the automated rice mill, such as bran and oil, are produced after processing and can be used for poultry feed, whereas traditional rice mills can only be used for poultry feed (Zaman et al., 2001).

Table 04. Major Differences between Husking and Automatic Rice Mill

Types of Mill	Major Components	Capacity of Production	Power Requirement	Hulling/ Polishing	Bran Separation and Grading
Husking	Soaking Tank Steam Parboiled Drying Floor Engle berg Huller	0.6 to 1 ton/hour	30-40 HP	2 to 3 operations	Manually
Automatic	Pre-cleaner Soaking Tank Boiler, Steam Pressure Parboiled Dryer, Rubber Roll Sheller, Paddy Separator Polisher, Bran Separator, etc.	2 tons/hour	65-100 HP	Separately by different devices	All Activities Mechanically

Source: The Review of Agricultural Economics (Zaman et al., 2001)

6. By Product Generation

Rice mills can produce three varieties of by-products: rice husk, rice bran, and broken rice. The percentage of head rice, rice husk, rice bran, and broken rice varies according to mill types. On average, the surveyed automatic rice mills could generate 65.0, 22.75, 8.25, and 5.0 percent of head rice, rice husk, rice bran, and broken rice, respectively, while the husking mill produces less compared to automatic (Table 5).

Table 05. Milling Outturn and Production of By-Products for 40 KG Paddy

Mill Type	Milling Outturn (Kg)	Husk (Kg)	Rice Bran (kg)	Broken Rice (Kg)
Husky	25	9.3	3.5	2.2
	(62.5)	(23.25)	(8.75)	(5.5)
Automatic	26	8.7	3.3	2
	(65.0)	(22.75)	(8.25)	(5.0)

Source: ECRL Primary Survey (Rahman et al., 2017)

However, the prices of these by-products are given below in Table 6. Furthermore, the by-product of auto rice mill has higher market demand because of good quality. Therefore, the number of by-products and raw products produced by a rice mill and their market demand could influence the margin of the millers.

Table 06. By-product Selling Prices for both Husking, Semi-automatic, and Automatic Rice Mills

Particular	Husk	Rice Bran	Broken Rice	
	(per kg)	(per kg)	(per kg)	
			Medium	Small
Selling price	BDT 39	BDT 35	BDT 37-39	BDT 32

Source: ECRL primary survey (April 2023)

All the by-products that rice mills produce have alternative uses, such as bran, and broken rice is helpful to feed cattle, poultry, fish, and rice bran, which is again used to produce natural oil, while rice husks are utilized as fuel for millers and rural community and ash of husk is used in cement factory as a silica. Husking mill owners generally use husks as fuel for boiling. A miller needs roughly 7200kg of husks to boil 40000kg of paddy (Zaman et al., 2001). Millers usually purchase husks from other millers or the market, make charcoal sticks and sell them.

7. The Rice Supply Chain

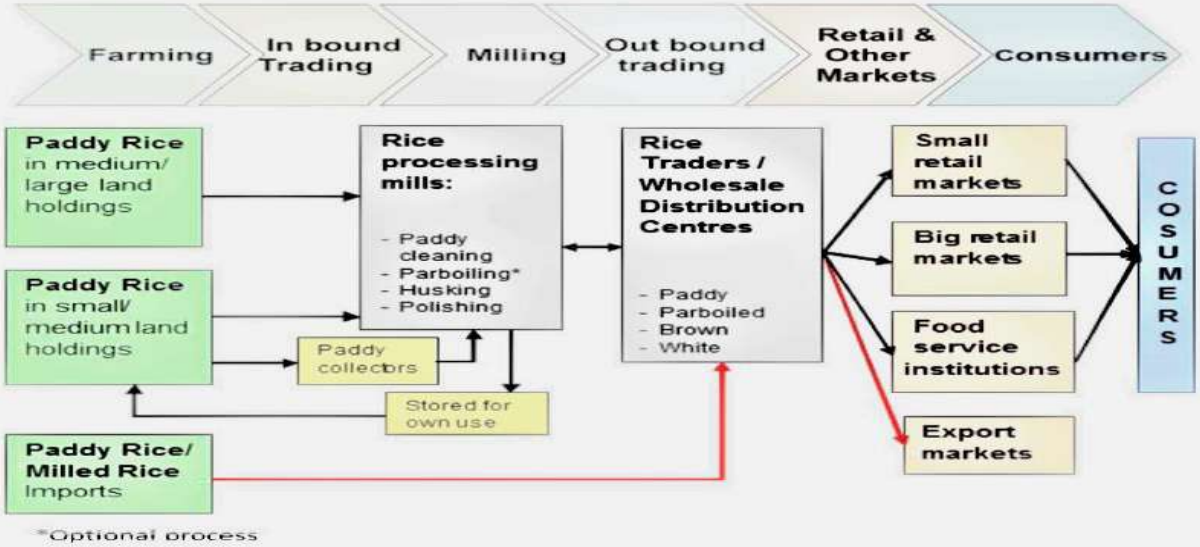
In a particular country, a customary rice supply chain is a complex system of public and private entities that interconnect rice producers, such as farmers, rice millers, collectors, traders, wholesalers, retailers, and food processors, with the ultimate consumers (as depicted in Figure 4). The supply chain also includes other key stakeholders such as transporters, entities providing seeds, agrochemicals, and agricultural equipment, irrigation companies, inspection agencies, and various government departments, including those for commerce, tax, and agriculture. Additionally, other state agencies regulate the prices of paddy by governmental policies.

Small land-holding farmers residing in villages can produce sufficient rice to meet their yearly consumption needs. Typically, the village miller will process the small quantity of paddy rice without

charge in exchange for the rice bran. As a result of the limited working capital and capacity of the mill, this activity represents a relatively small enterprise. Farmers with medium-sized holdings with access to local mills generally sell their rice directly to those mills. However, if transportation costs are high or road conditions are poor, access to mills may be limited, and farmers may be compelled to sell their crops to paddy collectors or traders at market prices. The collectors or traders then profit by selling the paddy to the millers or the export market. In many countries, fair trade programs have been established to connect farmers with consumers willing to pay a premium that covers production and investment expenses. These programs have successfully improved the lives of small-scale farmers. Large land-holding farmers, on the other hand, usually supply their paddy rice directly to rice-processing mills, thereby eliminating the middlemen and increasing their earnings. Rice-processing companies also benefit from sourcing directly from farmers, lowering procurement, logistics, and other intermediary and supply-chain expenses. Medium and large-scale rice-processing mills are increasingly located in large rice-producing regions, and they perform two primary functions: (1) cleaning, de-husking, and polishing rice, and (2) supplying rice (parboiled, brown, or milled white) to markets where demand is high and where rice can be sold at better prices, specifically urban and densely populated areas. Both paddy and milled rice are directly exported to neighboring countries during and after the harvesting season. Private rice companies are becoming more involved in the rice market by procuring paddy, processing, milling, and storage, and establishing retail outlets (Muthayya et al., 2014).

However, the rice supply chain trends are shifting, with small farmers increasingly selling their cultivated rice for higher prices. This has been facilitated through various government initiatives, including schemes that assist farmers, an increase in contract farming that promotes the consolidation of grain production, the adoption of the farm-to-fork concept in emerging corporate farms, and the integration of better traceability and control of operations into the rice supply chain. The forward linkages in the supply chain, which involve the relationships that move rice toward end consumers, are also anticipated to become more efficient, with the greater organization in the retailing and branding processes leading to the consolidation of the volume of rice traded. In countries where the government subsidizes rice production, there is improved regulation and influence to support farmers and provide consumers with a low-cost purchasing option (Muthayya et al., 2014).

Figure 03. Conceptual diagram of the rice supply chain in a rice-growing country.



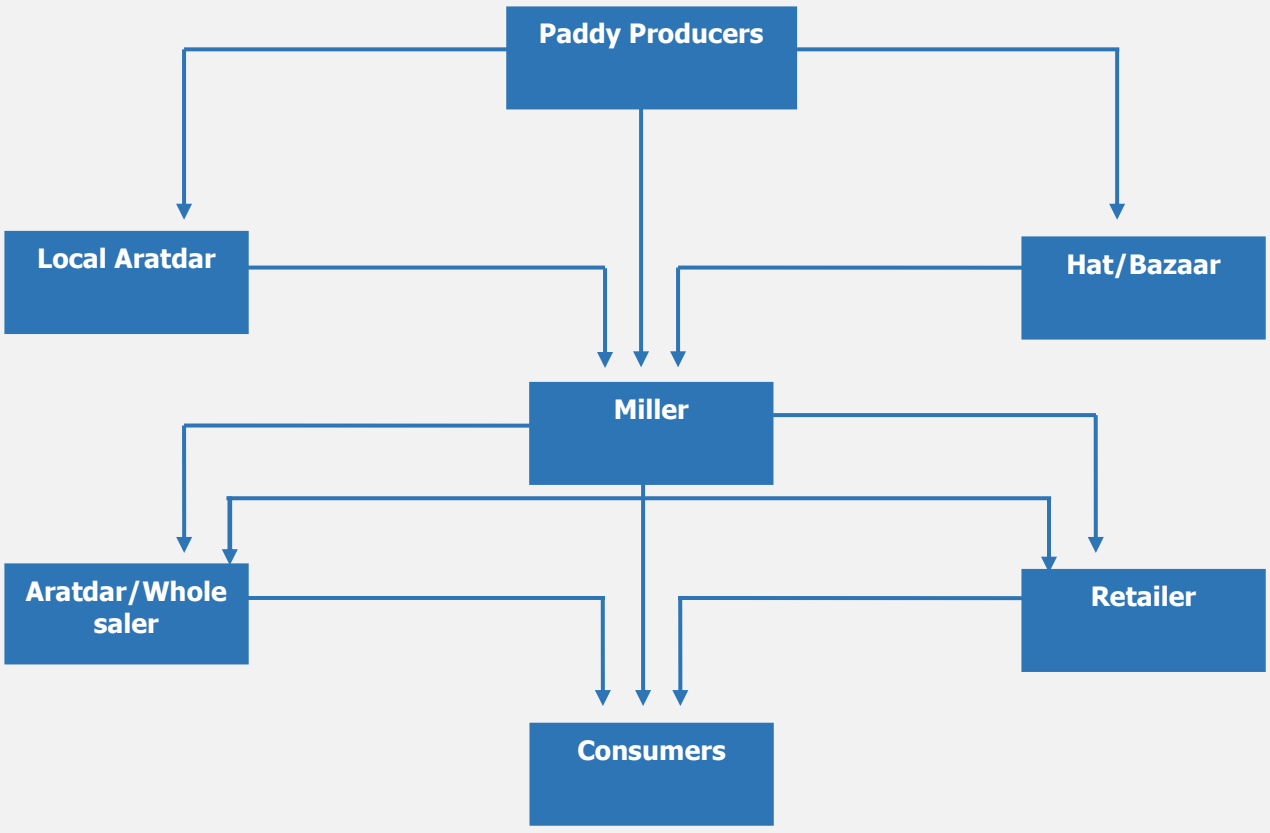
Source: The New York Academy of Sciences (Muthayya et al., 2014)

8. Marketing Channel of Rice in Bangladesh

A marketing or distribution channel refers to a group of interdependent entities that work together to facilitate the transfer of ownership of goods or services from the producer to the ultimate consumer. In the case of agricultural products, intermediaries within the marketing system ensure the efficient movement of goods from farmers to end customers.

The marketing channels utilized by rice mills are depicted in Figure 5. The channel involves four primary groups: rice producers, aratdar/bazaar, mills, and wholesalers/retailers. Initially, paddy producers sell their harvest to nearby bazaars or hats. Local aratdar then purchase the paddy from the bazaar or hat, and occasionally from the producers before selling it to the millers. The rice millers may also purchase paddy directly from the producers. After processing the paddy, the millers sell the resulting rice to wholesalers or retailers and sometimes to consumers. Finally, retailers purchase rice from wholesalers or directly from the mill and sell it to end consumers.

Figure 04. Marketing Channel of Rice Processing Industry



Source: ECRL Primary Survey (Rahman et al., 2017)

9. Legal Issues

Before establishing a rice mill, the entrepreneur must obtain the requisite approvals and licenses from relevant authorities per various Acts and Rules. These authorizations grant clearance to establish the rice mill.

The following licenses and approvals are required (Rahman et al., 2017):

1. License from the Ministry of Land Office: The initial steps require a permit for establishing the industry.
2. Local Chairman Trade License: Trade license is required before starting any business.
3. Ministry of Food License (Upazila Food Controller, District Food Controller): The rice mill setup requires a license to be acquired for manufacturing rice or food items.
4. Approval from the Ministry of Power: The electricity or power supply is significant in rice manufacturing, especially in auto rice mills. The Ministry of Power needs to be informed about the required quantity and power supply. The ministry would provide the approval and power supply as required.
5. Ministry of Environment and Forests Approval: The rice mill emits husks while manufacturing the rice, which has created a health hazard for the local people living near the mills. So, an environmental certificate must be collected, which requires following some rules or precautions to be taken to reduce the impact. Then, it approves the mill owners to mill the rice.
6. Fire Service: The mill has to meet the safety measures for fire hazards by taking necessary steps or buying fire extinguishing equipment, etc.
7. Ministry of Labor and Employment: Millers have to abide by all the rules or laws of labor.

10. Conclusion

The primary aim of this investigation is to acquire an extensive comprehension of the rice milling process in Bangladesh. This objective is achieved by examining Bangladesh's current categories of rice mills: Automatic, Semi-automatic, and Hasking Mills. Subsequently, the costs of setting up and operating each type of rice mill are briefly deliberated, encompassing establishment costs (land, infrastructure development, and machinery) and operational costs (labor and utilities). Furthermore, this study evaluates the production process of automatic and Hasking mills separately, highlighting the disparities. Moreover, the by-product status of both automated and Hasking mills is also analyzed. In addition to scrutinizing the marketing channel of the Bangladesh rice market, this study has also examined the global rice supply chain. Finally, the legal requirements for establishing a new rice mill are discussed.

Nevertheless, this study holds significant importance for several reasons. Firstly, it provides an opportunity for students and readers to acquire knowledge regarding rice processing. Secondly, entrepreneurs can gather valuable insights regarding rice mills before making investments. Thirdly, policymakers can make informed decisions regarding policies by understanding the current state of the rice milling industry. Finally, researchers can identify research gaps and conduct further investigations.

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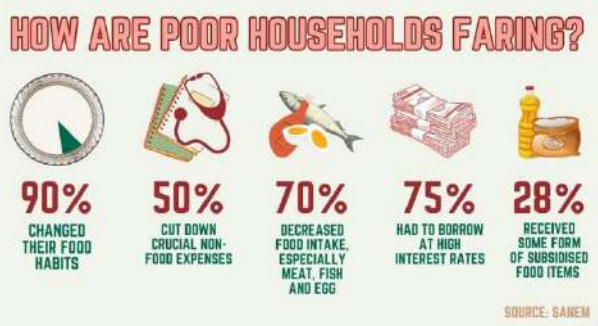
Surviving the Hunger Games: Tips and Tricks for When Hunger Strikes



The impoverished communities in Bangladesh face heightened uncertainty due to the unpredictable fluctuations of commodity prices in domestic and international markets. The sharp increases in food prices and decreased real income have made it increasingly difficult for them to afford necessities. Between February 2022 and February 2023, the country's annual inflation rate (point-to-point) has risen from 6.2 percent to 8.8 percent, with some months experiencing rates well above 9%.

Bangladesh is currently experiencing its highest inflation rate in 11 years. This inflation erodes real income, which lowers the purchasing power of those living below the poverty line. Individuals with limited job opportunities and those who work in the informal sector are especially vulnerable and continue to struggle. Most impoverished individuals live in uncertainty as their income or salaries are not adjusted to account for excessive inflation. Many are forced to dip into their savings or take out loans to pay for daily necessities, while others have minimal such options.

Although the officially reported inflation rates remain elevated, there are growing concerns that the actual inflation rate for low-income households in Bangladesh may be significantly higher. According to a recent analysis conducted by the South Asian Network for Economic Modeling (SANEM), the rate of inflation experienced by impoverished individuals is substantially greater than the official rate, largely due to the fact that a significant portion of their income is allocated towards food products. Furthermore, there is a mounting worry that the current inflationary conditions are unlikely to improve shortly.

The recent surge in inflation can be attributed to several factors, including increased global prices for food, fuel, and other commodities, a shortage of domestic production, supply chain disruptions, market inefficiencies, anomalies, and the depreciation of the taka. While global issues have played a significant role, domestic economic and market management issues are also responsible for this persistent inflationary pressure.

SANEM surveyed 1,600 homes across eight divisions, including 800 families from urban areas and 800 households from rural areas to investigate the effect of inflation on the livelihoods of poor households. It was carried out between March 9 and March 18 of this year. Some of the major findings of this survey are striking and alarming.

Firstly, it should be noted that the average monthly income of poor households did not increase in the past six months, and in some cases, it even decreased. However, their total monthly expenditure increased by 13%, and their food expenditure increased by 17%. It is imperative to recognize that these households cannot substantially afford to increase their monthly expenditures due to their limited incomes.

Secondly, the primary ways of coping for impoverished households involved modifying their dietary choices, borrowing money, reducing healthcare, education, and clothing spending, and depleting their savings. Most (90%) of these households reported altering their eating habits, while more than half (50%) significantly curtailed essential non-food expenses. Moreover, 75% of impoverished households have resorted to borrowing from various informal sources, including microcredit, at steep interest rates, thereby increasing the risk of becoming trapped in debt.

Thirdly, over 70% of impoverished households had to reduce their food consumption, particularly meat, fish, and eggs and switched to lower-quality food. As a result, these households are experiencing higher levels of food insecurity than six months ago.

Fourthly, the survey revealed that most households surveyed were not beneficiaries of any social protection programs, and only 28% received subsidized food items through the government's OMS program or TCB cards. Furthermore, the frequency of receiving subsidized food items per month through these programs was meager, and the beneficiaries had to spend several hours availing themselves of such support. This indicates that the government's social protection programs had limited coverage during the crisis, leaving many poor households without adequate support.

Finally, the prospects for impoverished households appear grim, as 85% of them are at risk of slipping further into debt. Based on the aforementioned analysis, it is evident that the extended period of high inflation has been particularly arduous for these households. The unpredictable state of the global economy and the domestic economic crisis may exacerbate their plight. Given these circumstances, what steps can be taken to address the situation?

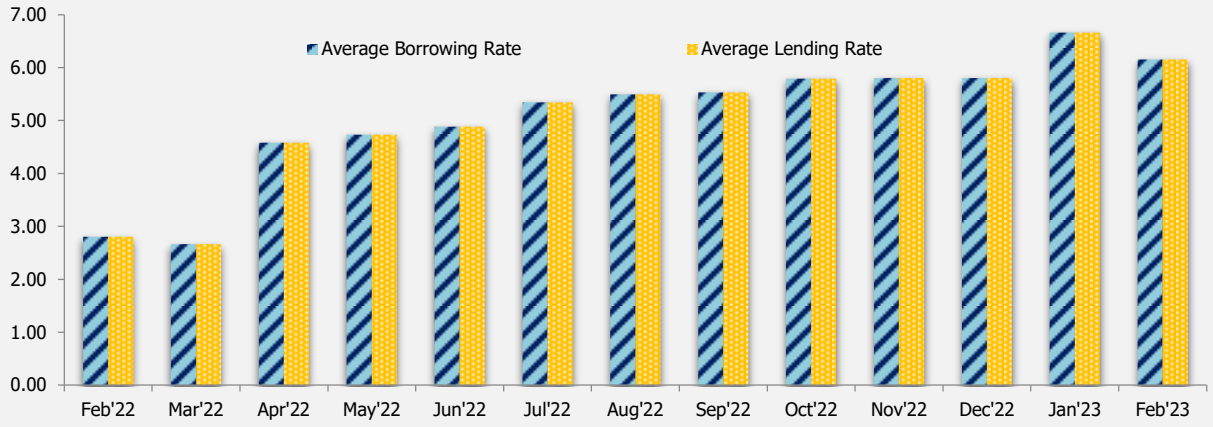
It is imperative to ensure a sufficient supply of food items in the market by significantly boosting domestic production of food crops, guaranteeing timely procurement of critical food imports, and exploring alternative import sources. Additionally, there is a pressing need to expand the government's social protection programs for the underprivileged. This can be achieved by increasing the number of beneficiaries of food support programs and TCB cards and augmenting the quantity and frequency of distribution of subsidized food items, including all impoverished individuals under the purview of the government's social protection programs is crucial.

To this end, it is crucial to tackle issues such as the under-allocation of resources, targeting errors, the absence of coordination among ministries, and institutional weaknesses, including corruption. Moreover, Bangladesh's domestic market management system needs to be improved, particularly regarding market monitoring and the enforcement of regulations to prevent anti-competitive practices that result in unwarranted food price increases. Therefore, it is essential to strengthen the market monitoring mechanism and enhance the capacity and autonomy of government agencies responsible for preventing anti-competitive practices by large corporations in the market.

Note: This article has been produced in collaboration with a study titled "Effects of Inflation on the Livelihoods of the Poorer Households in Bangladesh: Findings from SANEM's Nationwide Household Survey during 9-18 March 2023," which was conducted by SANEM, and an article written by Dr. Selim Raihan. Dr. Raihan is a professor at the Department of Economics of the University of Dhaka and is the executive director of the South Asian Network on Economic Modeling (SANEM).

The average call money rate experienced fluctuations and had an increasing trend in the past six months and experienced an increase till January 2023 which declined in February 2023. The lending and borrowing rates stood at 6.15%.

Figure 01. Call Money Rate



Source: Bangladesh Bank

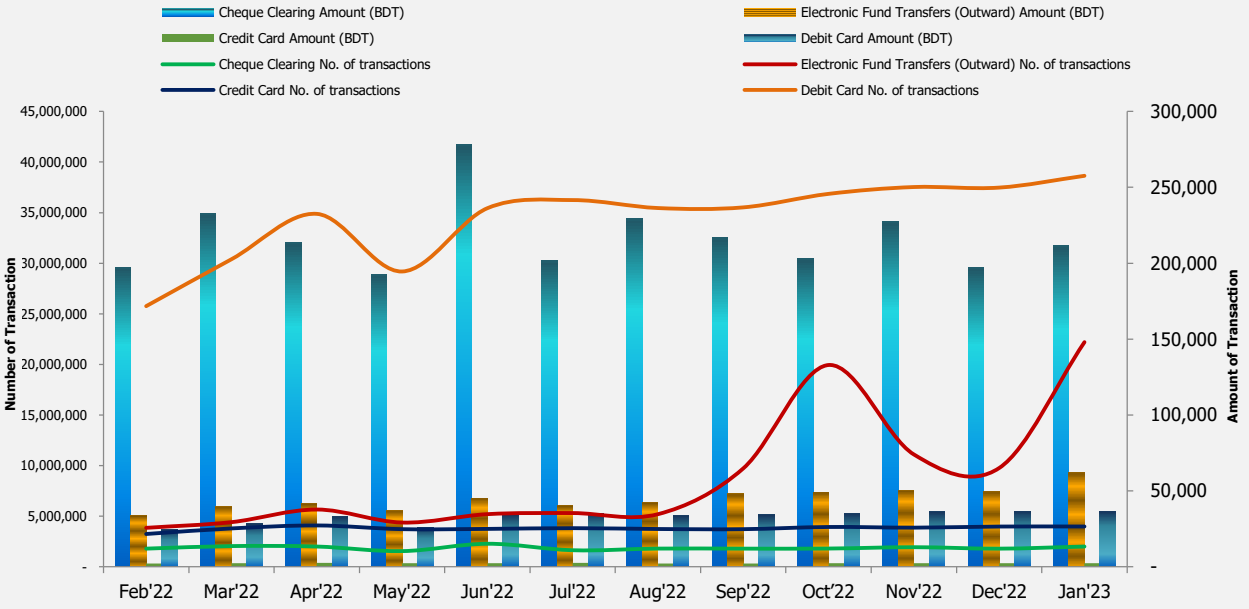
The e-banking and e-commerce transactions have increased in January 2023 compared to previous month. Cheque Clearing, Electronic Fund Transfers, Credit Card and Debit Card transactions increased transactions by 11.50%, 127.31%, 0.07 and 3.11%, respectively.

Table 01. E-Banking and E-Commerce Statistics (BDT in Crore)

Month	Cheque Clearing		Electronic Fund Transfers (Outward)		Credit Card		Debit Card	
	Transaction	Amount (BDT)	Transaction	Amount (BDT)	Transaction	Amount (BDT)	Transaction	Amount (BDT)
Nov'21	1,931,519.00	209,887.25	15,729,267.00	46,772.19	3,370,208.00	2,092.40	26,156,395.00	23,178.52
Dec'21	1,947,769.00	233,791.40	9,608,390.00	47,253.71	3,471,872.00	2,228.98	27,117,021.00	24,356.97
Jan'22	2,011,413.00	219,424.53	21,069,894.00	51,636.26	3,429,392.00	2,138.38	27,109,022.00	24,700.99
Feb'22	1,825,714.00	199,345.69	10,139,310.00	41,696.00	3,249,764.00	2,108.77	25,759,397.00	24,410.74
Mar'22	2,081,906.00	235,939.00	9,793,064.00	48,129.23	3,798,207.00	2,513.44	30,394,108.00	28,375.01
Apr'22	2,030,371.00	215,540.88	25,290,758.00	57,900.42	4,093,995.00	2,715.28	34,878,785.00	33,317.18
May'22	1,581,373.00	193,665.33	14,915,428.00	44,385.42	3,725,590.00	2,371.06	29,186,418.00	26,050.84
Jun'22	2,314,620.00	280,544.27	36,669,413.00	62,368.64	3,752,891.00	2,491.32	35,437,558.00	34,744.66
Jul'22	1,659,033.00	202,842.74	13,398,738.00	49,119.83	3,826,773.00	2,578.10	36,241,858.00	35,407.19
Aug'22	1,823,394.00	231,302.96	10,270,841.00	51,699.03	3,741,940.00	2,302.40	35,454,401.00	33,786.20
Sep'22	1,802,221.00	216,764.37	9,730,251.00	48,008.86	3,725,173.00	2,281.77	35,519,354.00	34,355.20
Oct'22	1,813,675.00	202,943.30	19,944,569.00	49,241.20	3,941,642.00	2,458.20	36,855,390.00	35,253.60
Nov'22	1,943,889.00	227,574.56	11,106,837.00	50,322.47	3,875,289.00	2,459.20	37,528,889.00	36,356.31
Dec'22	1,801,384.00	197,398.62	9,767,821.00	49,478.62	3,985,465.00	2,489.38	37,472,910.00	36,710.65
Jan'23	2,008,460.00	211,740.57	22,203,302.00	62,004.33	3,988,104.00	2,506.51	38,637,515.00	36,765.30

Source: Bangladesh Bank

Figure 02. E-Banking Transaction



Source: Bangladesh Bank

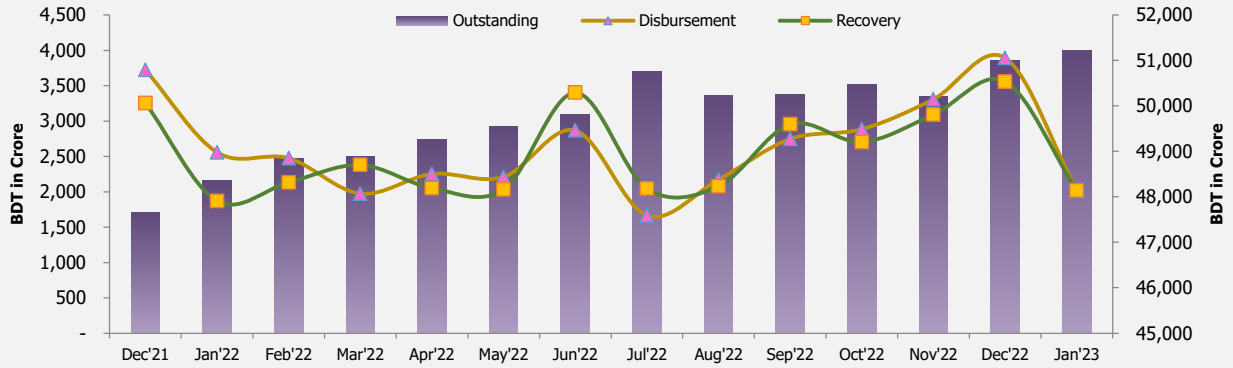
With globalization and digitization, people prefer the internet and mobile banking. In December 2022, the number of internet banking customers increased by 2.05%, and subscribers of mobile banking increased by 1.33% as compared to the previous month. Currently, agent banking has become popular in rural areas, for which the amount of money transacted through agent banking exceeded the BDT 50,000-crore mark for the first time in January 2022 and currently stood at BDT 62,761.35 crore.

Table 02. Internet, Mobile, and Agent Banking at a Glance

Month	Internet Banking			Mobile Banking				Agent Banking			
	Customer	Transaction	Amount (BDT)	Agents	Transactions	Amount (BDT)	Subscriber	Agents	Transactions	Amount (BDT)	Subscriber
Jan'22	4,554,785	4,552,127	18,623.21	1,429,850	408,094,514	84,783.41	173,267,972	14,081	14,755,323	52,121.88	14,416,227
Feb'22	4,699,459	4,496,931	17,763.30	1,445,537	368,643,121	78,545.22	176,274,230	14,168	13,291,184	47,055.91	14,777,744
Mar'22	4,826,551	5,177,824	23,140.75	1,465,032	413,268,681	89,076.99	170,251,728	14,170	13,934,578	56,640.25	15,192,980
Apr'22	4,924,682	5,860,722	22,957.60	1,482,016	444,373,921	107,460.31	172,937,294	14,188	14,189,702	53,463.58	15,485,570
May'22	5,138,554	4,819,088	20,662.97	1,495,856	413,216,473	76,311.97	175,769,859	14,240	14,020,406	48,028.71	15,720,988
Jun'22	5,355,586	5,667,084	23,770.84	1,515,665	461,609,837	94,293.70	178,639,642	14,300	22,596,105	58,534.18	16,073,962
Jul'22	5,472,264	5,703,793	23,548.54	1,526,239	431,892,765	89,169.26	181,137,763	14,412	12,448,213	52,784.44	16,287,310
Aug'22	5,716,529	5,970,748	25,543.98	1,493,398	408,059,052	87,446.37	183,224,610	14,509	12,988,273	57,542.35	16,537,969
Sep'22	5,889,226	6,024,976	26,605.39	1,500,128	408,379,707	87,635.17	185,257,932	14,716	12,732,190	59,295.22	16,781,251
Oct'22	6,019,687	6,117,675	25,965.30	1,521,803	444,062,360	93,034.98	187,523,593	14,833	15,506,520	59,770.28	17,042,562
Nov'22	6,127,001	6,201,828	27,426.64	1,531,405	415,974,768	92,125.75	188,559,736	15,056	14,627,647	65,062.23	17,251,563
Dec'22	6,252,634	5,624,146	27,558.79	1,554,637	428,324,785	96,132.86	191,063,573	15,226	15,621,424	62,761.35	17,478,884
Jan'23	6,432,921	6,901,854	33,925.58	1,569,112	462,957,809	100,593.42	194,125,137	15,270	15,829,033	70,970.07	17,760,150

Source: Bangladesh Bank

Figure 03. Agricultural Credit



Source: Bangladesh Bank

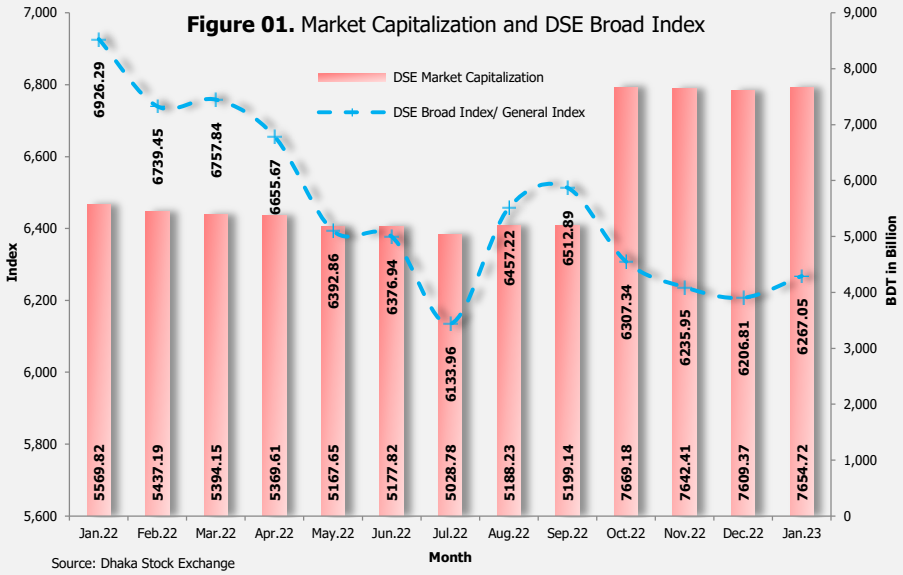
The agricultural credit finances statistics showed that the credit disbursement and recovery amount fluctuated in the past 12 months and increased in July, October and December 2022 which had a significant decline in January 2023. However, credit disbursement and recovery amount followed a steady flow from January till May, then increased in June and fell again in July 2022. The disbursement amount increased in December 2022 and fell in January 2023 by 48.25%. Moreover, recovery decreased by 43.33% in January 2023 compared to December 2022. Nevertheless, the outstanding amount had slightly increased in January 2023 standing at BDT 51,225.71 Crore.

Dhaka Stock Exchange (DSE)

At the end of January 2023, the total number of listed securities stood at 657. Among them, there were 354 companies, 249 government bonds, 37 mutual funds, 9 corporate bonds, and 8 debentures. The number of companies consists of 34 banks, 23 financial institutions, 56 insurance companies, and 241 other companies.

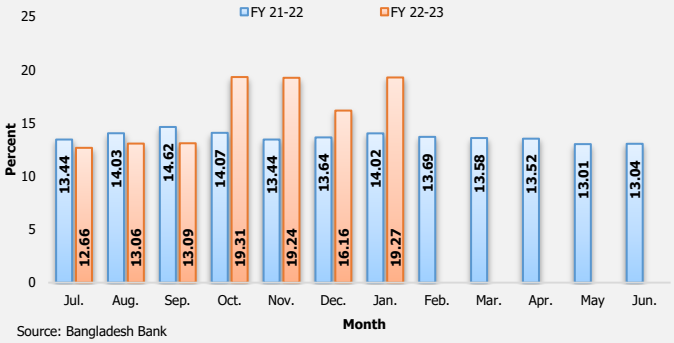
The DSE Broad Index (DSEX) stood at 6267.05 at the end of January 2023, which was 0.97% higher than those of December 2022, and 9.52% lower than the same month of the previous year (Figure 1). On the other hand, Figure 1 also shows that the market capitalization of DSE stood at BDT 7,654.72 billion at the end of January 2023, which was 0.60% higher than those of the previous month, and 37.43% higher than the same month of the preceding year.

Figure 01. Market Capitalization and DSE Broad Index



Source: Dhaka Stock Exchange

Figure 02. Market Capitalization to GDP Ratio

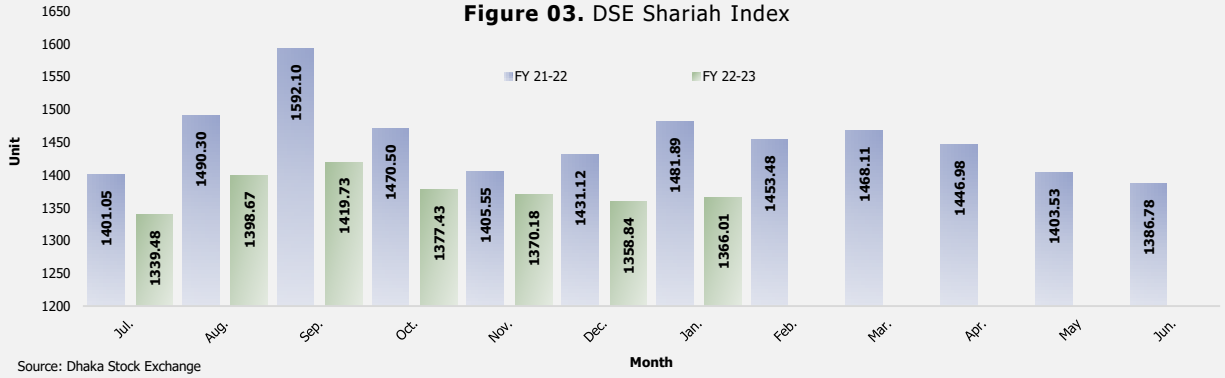


Source: Bangladesh Bank

The ratio of market capitalization to GDP for a particular month is calculated as the total market capitalization of that month divided by the total GDP at the current market price in which this particular month belongs.

The ratio of market capitalization to GDP (at the current market price) stood at 19.27% at the end of January 2023, which was 19.16% at the end of December 2022 and 14.02% in the corresponding month of the previous year (Figure 2).

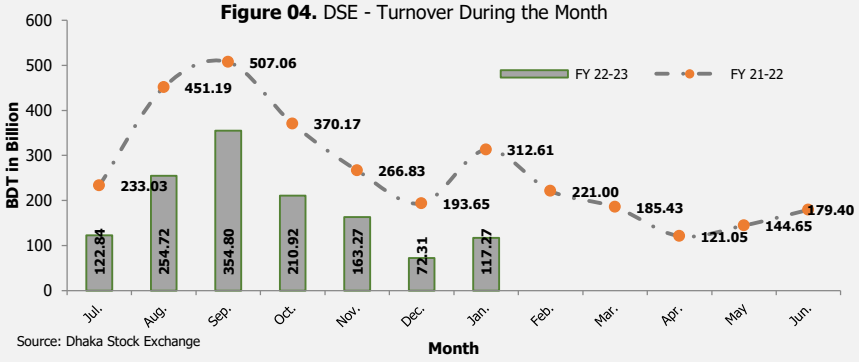
Figure 03. DSE Shariah Index



Source: Dhaka Stock Exchange

The DSEX Shariah Index (DSES) stood at 1,366.01 at the end of January 2023, compared to 1,358.84 at the end of December 2022 and 1,481.89 at the end of January 2022 (Figure 3).

Figure 04. DSE - Turnover During the Month

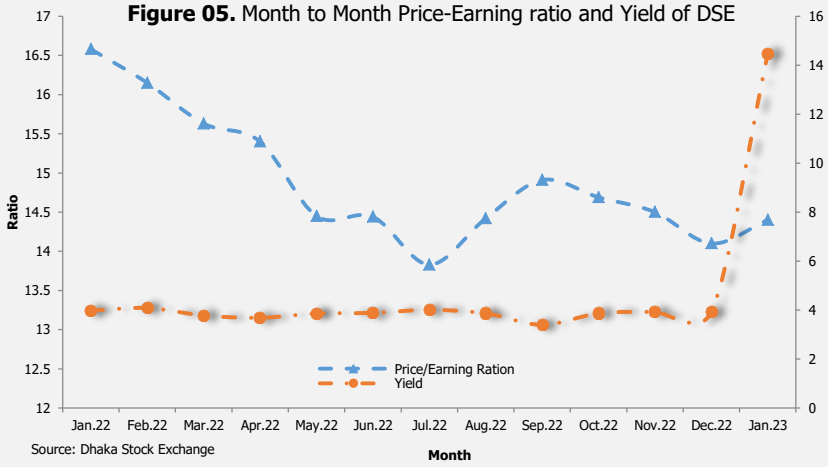


Source: Dhaka Stock Exchange

In January 2023, the value of the total turnover of the traded securities stood at BDT 117.27 billion, which was 62.18% higher than those of December 2022, and 62.49% lower than the corresponding month of the previous year (Figure 4).

Figure 5 shows the trends in price-earnings ratio and yield. The Price-Earning (P/E) ratio of all securities stood at 14.10 at the end of January 2023, which was 14.00 at the end of December 2022, and this ratio was 16.58 at the end of January 2022. The yield of all securities decreased to 3.86 at the end of January 2023, which was 3.93 at the end of December 2022 and 3.97 at the end of January 2022.

Figure 05. Month to Month Price-Earning ratio and Yield of DSE

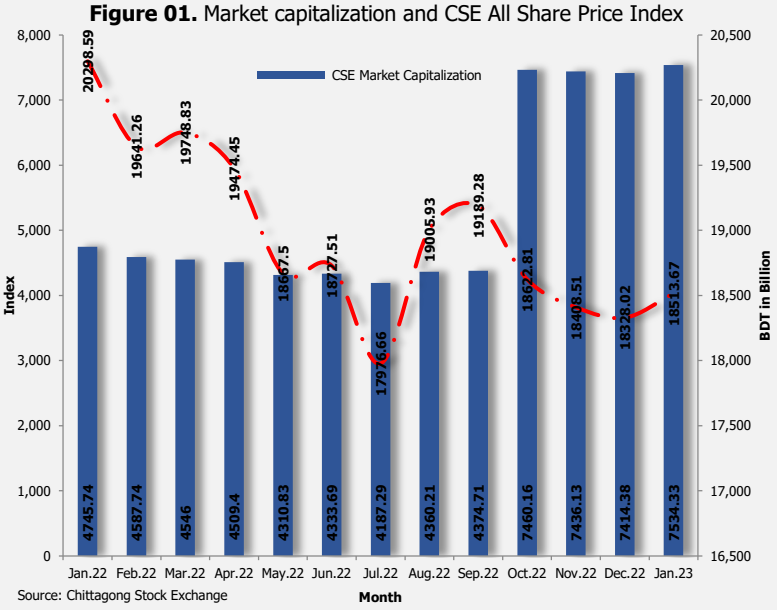


Source: Dhaka Stock Exchange

Chittagong Stock Exchange (CSE)

Similarly, the total number of listed securities in the CSE stood at 619 at the end of January 2023. The total amount of issued capital stood at BDT 4,147.75 billion at the end of January 2023, which was BDT 3,662.73 billion at the end of December 2022, and BDT 891.12 billion at the end of the same month of the previous year.

Figure 01. Market capitalization and CSE All Share Price Index

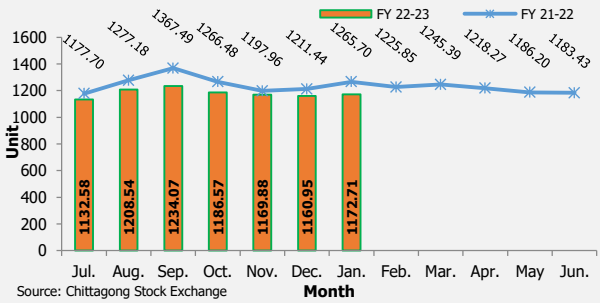


Source: Chittagong Stock Exchange

The trends of market capitalization and all share price indexes of the CSE are shown in Figure 1. All Share Price Index of CSE (CASPI) stood at 18513.67 at the end of January 2023, which was 1.01% higher and 8.79% lower than those of December 2022, and the same month of the previous year. The market capitalization of the CSE stood at BDT 7,534.33 billion at the end of January 2023, which were 1.62% higher than those of December 2022 and 58.76% higher than the same month of the previous year.

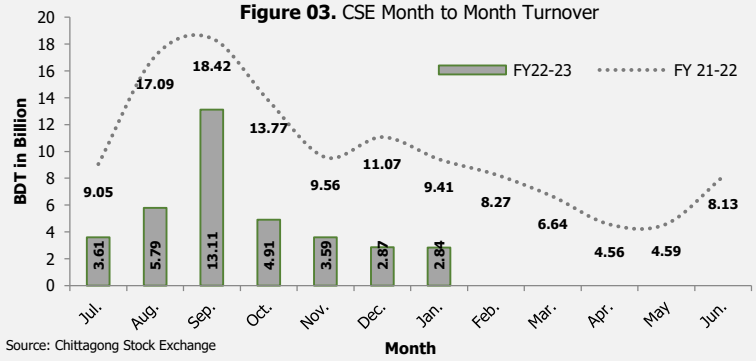
The CSE Shariah Index (CSI) stood at 1172.71 at the end of January 2023, which was 1160.95 at the end of December 2022 and 1265.70 at the corresponding month of the previous yea (Figure 2).

Figure 02. CSE Shariah Index



Source: Chittagong Stock Exchange

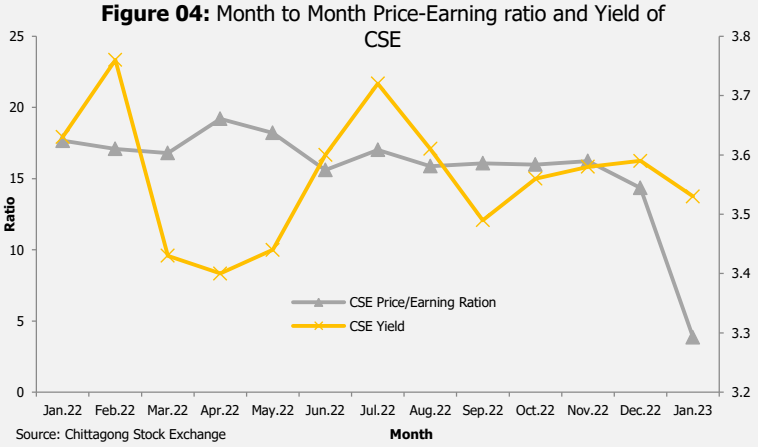
Figure 03. CSE Month to Month Turnover



Source: Chittagong Stock Exchange

In December 2022, the value of the total turnover of the traded securities stood at BDT 2.84 billion, which was 1.05% lower than those of December 2022, and 69.82% lower than the corresponding month of the previous year (Figure 3).

Figure 04: Month to Month Price-Earning ratio and Yield of CSE



Source: Chittagong Stock Exchange

Figure 4 shows the trends in the price-earnings ratio and yield of CSE. The Price-Earning (P/E) ratio of all securities stood at 14.48 at the end of January 2023, which was 14.35 at the end of December 2022, and this ratio was 17.66 at the end of January 2022. The yield of all securities decreased to 3.53 at the end of January 2023, which was 3.59 at the end of December 2022 and 3.63 at the end of January 2022.

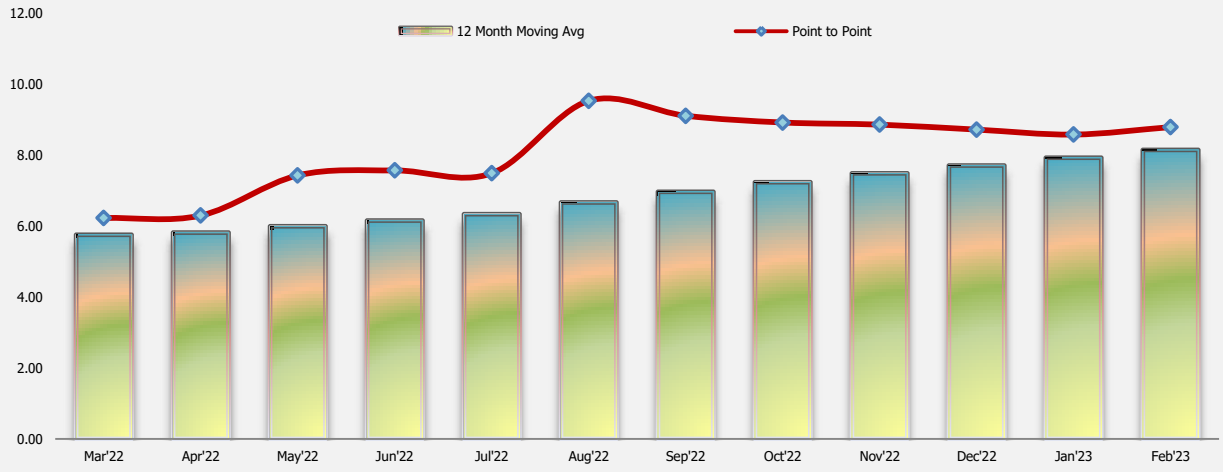
Real Sector Update

In February 2023, the twelve-month moving average and point-to-point inflation stood at 8.14% and 8.78%, respectively. It has been observed that the average inflation had increased in February compared to previous month. The twelve-month moving average inflation had been increasing continuously and the food and non-food inflation stood at 8.08% and 8.23% respectively in February 2023.

The point-to-point general inflation for urban and rural has been declining for the last three months since November 2022 which increased in February standing at 8.75% and 8.80% respectively. Food and non-food inflation for urban also increased standing at 7.98% and 9.61%. The food inflation for rural increased to 8.19% whereas, non-food inflation declined to 9.98%.

The categories of non-food items like Clothing & Footwear, Gross Rent, Fuel & Lighting, Furniture & House equipment, Medical Care, Recreation Education & Environment and Miscellaneous Goods and Services, experienced a significant decrease in the monthly percentage of CPI in February 2023 compared to items like Transportation which increased significantly.

Figure 01. CPI Inflation, Bangladesh (2005/2006=100)



Source: Bangladesh Bureau of Statistics

Table1. CPI Inflation, Bangladesh (2005/2006=100)

Month	National			Urban			Rural		
	General	Food	Non-Food	General	Food	Non-Food	General	Food	Non-Food
Jul'21	5.36	5.08	5.80	5.06	4.01	6.24	5.53	5.56	5.47
Aug'21	5.54	5.16	6.13	5.22	4.02	6.59	5.71	5.67	5.79
Sep'21	5.59	5.21	6.19	5.25	4.03	6.65	5.77	5.74	5.84
Oct'21	5.70	5.22	6.48	5.50	4.31	6.89	5.81	5.62	6.17
Nov'21	5.98	5.43	6.87	5.59	4.37	6.99	6.20	5.90	6.78
Dec'21	6.05	5.46	7.00	5.66	4.41	7.07	6.27	5.93	6.94
Jan'22	5.86	5.60	6.26	5.47	4.85	6.17	6.07	5.94	6.32
Feb'22	6.17	6.22	6.10	5.59	5.30	5.91	6.49	6.62	6.25
Mar'22	6.22	6.34	6.04	5.69	5.49	5.90	6.52	6.71	6.15
Apr'22	6.29	6.23	6.39	5.75	5.31	6.25	6.59	6.64	6.50
May'22	7.42	8.30	6.08	6.49	7.08	5.85	7.94	8.84	6.26
Jun'22	7.56	8.37	6.33	6.62	7.11	6.08	8.09	8.93	6.51
Jul'22	7.48	8.19	6.39	6.51	6.84	6.15	8.02	8.79	6.58
Aug'22	9.52	9.94	8.85	9.18	9.87	8.42	9.70	9.98	9.18
Sep'22	9.10	9.08	9.13	9.03	9.36	8.66	9.13	8.95	9.48
Oct'22	8.91	8.50	9.58	8.90	8.75	9.07	8.92	8.38	9.98
Nov'22	8.85	8.14	9.98	8.70	7.95	9.54	8.94	8.23	10.31
Dec'22	8.71	7.91	9.96	8.43	7.45	9.51	8.86	8.11	10.29
Jan'23	8.57	7.76	9.84	8.39	7.41	9.48	8.67	7.92	10.12
Feb'23	8.78	8.13	9.82	8.75	7.98	9.61	8.80	8.19	9.98

Source: Bangladesh Bureau of Statistics; Bangladesh Bank

Table2. Monthly % Change in Consumer Price Index (Point to Point Inflation, National) (2005/06=100)

Month	Non-Food	Clothing & Footwear	Gross Rent, Fuel & Lighting	Furniture & House Equipment	Medical Care & Health Expenses	Transportation & Communications	Recreation, Entertainment, Education & Cultural Services	Misc. Goods and Services
Jul'21	5.80	0.37	0.22	0.36	0.22	1.10	0.24	0.30
Aug'21	6.13	1.05	0.41	0.59	0.08	0.41	0.24	0.41
Sep'21	6.19	1.06	1.12	1.54	0.09	0.64	1.05	0.71
Oct'21	6.48	0.27	0.44	0.05	0.04	0.85	0.08	0.18
Nov'21	6.87	0.72	0.35	0.34	0.04	2.30	0.27	0.34
Dec'21	7.00	1.15	0.11	0.25	0.03	0.29	0.39	0.30
Jan'22	6.26	0.37	0.35	0.57	0.11	0.45	1.06	1.37
Feb'22	6.10	0.60	0.05	0.48	0.05	0.45	0.30	0.41
Mar'22	6.04	0.56	0.22	0.45	0.14	0.24	0.58	1.18
Apr'22	6.39	0.88	0.21	0.75	0.27	0.61	0.80	0.67
May'22	6.08	0.37	0.15	0.76	0.18	0.30	0.43	0.36
Jun'22	6.33	0.51	0.20	0.80	0.22	1.23	1.36	1.35
Jul'22	6.39	0.57	0.17	0.18	0.24	0.22	0.71	1.85
Aug'22	8.85	0.42	4.78	1.34	9.32	2.37	0.78	1.22
Sep'22	9.13	0.85	0.37	1.56	4.66	1.38	0.39	1.66
Oct'22	9.58	0.29	0.29	0.90	0.60	1.22	0.46	2.40
Nov'22	9.98	0.81	0.12	1.53	2.64	1.68	0.33	1.75
Dec'22	9.96	0.60	0.01	1.00	0.15	0.28	0.33	0.40
Jan'23	9.84	0.27	0.74	0.31	0.12	0.11	0.64	0.58
Feb'23	9.82	0.17	0.53	0.24	0.11	0.15	0.23	0.33

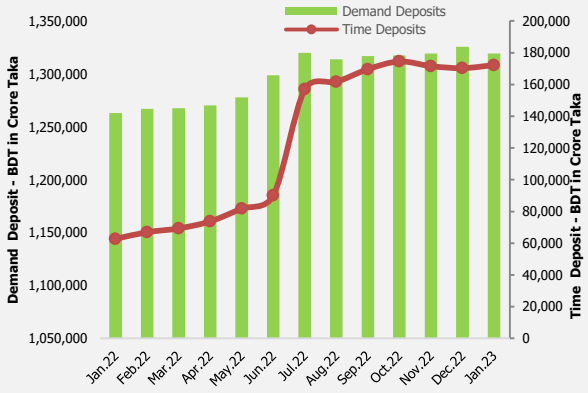
Source: Bangladesh Bureau of Statistics

Monetary Sector Update

Deposit Money in Bank

Figure 1 shows that Deposit Money Banks (DMBs) comprises 60 Scheduled Banks from January 2022 to January 2023. In the month January 2022, demand deposit was BDT 142,076.10 crore and in the month of January Demand Deposit increased to BDT 179,483 crore. However, time deposits increased to BDT 1,308,228 crore compared to the month of December 2022 BDT 1,305,427 crore.

Figure 01. Deposit Money Banks (DMBs)

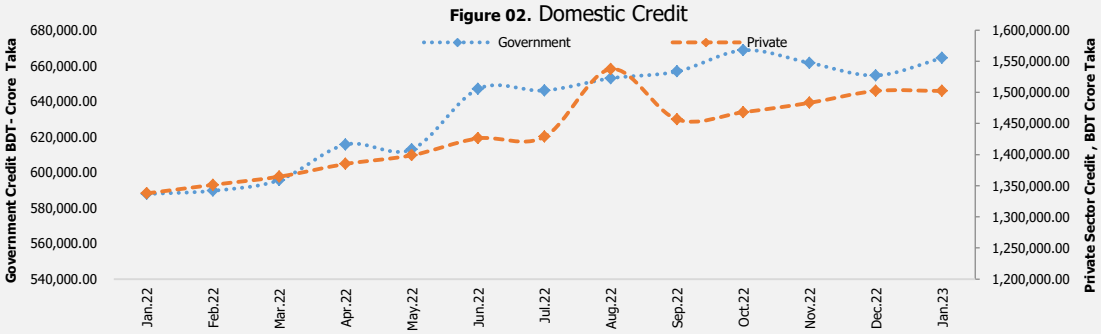


*Source: Bangladesh Bank

Domestic Credit

Figure 2 shows total domestic credit of the government and private sector of Bangladesh. In the month of January 2022, domestic credit of the private sector was BDT 1,337,718 crore and in the month of January 2023 private domestic credit increased to BDT 1,502,287 crore. In the month of January 2023, Government sector credit was BDT 614,314 crore and in the month of January 2023 government sector credit increased to BDT 664,370 crore.

Figure 02. Domestic Credit

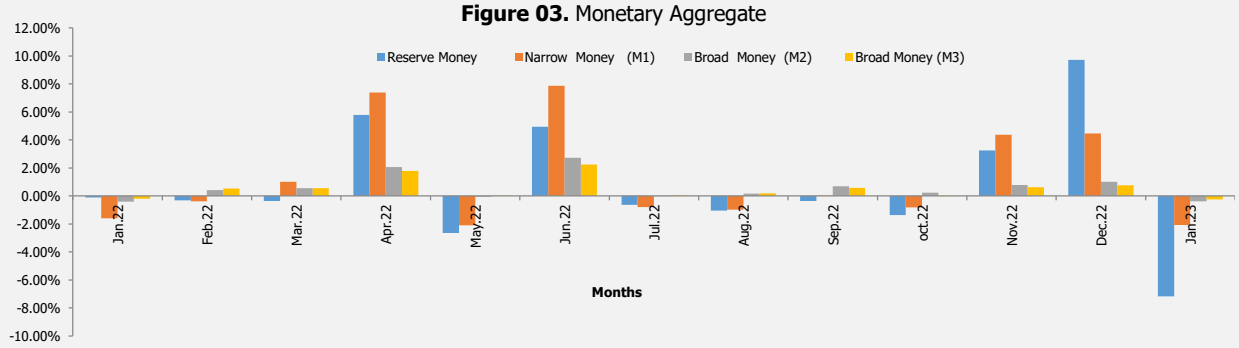


*Source: Bangladesh Bank

Monetary Aggregate Growth

Table 1 shows the monetary aggregate of Bangladesh Bank. In January 2022, reserve money, narrow money (M1), broad money (M2), and broad money (M3) growth was positive but in the month of January 2023 all of the monetary aggregate growth was negative.

Figure 03. Monetary Aggregate

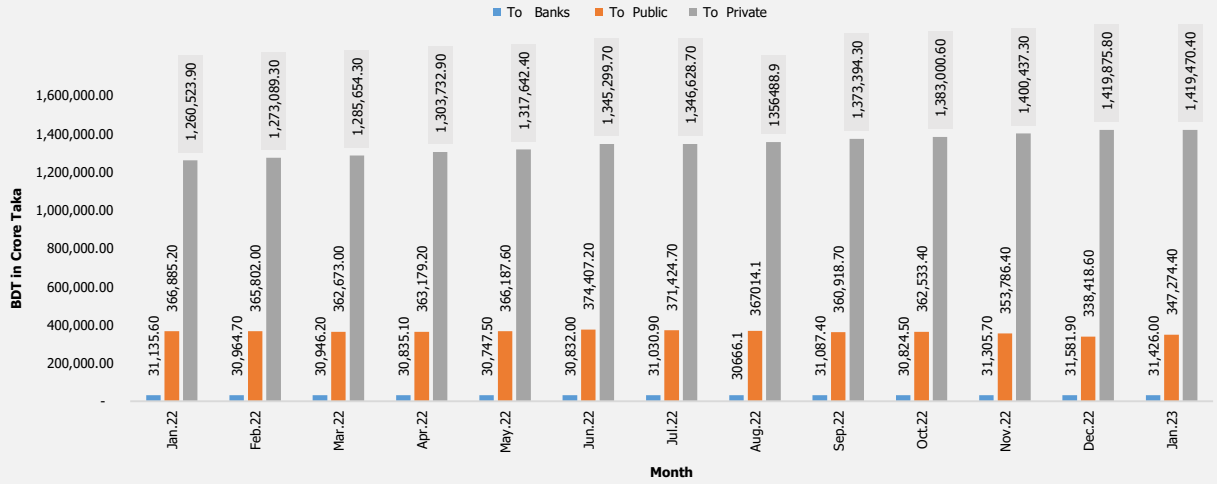


*Source: Bangladesh Bank

DMBs Credit (Advances + Bills + Investment)

Figure 3 shows DMBs' credit for advances, bills, and investments. In the month of January 2022, DMBs credit (Advances + Bills + Investment) was BDT 31,135 crore, 366,885 crore and 1,260,523. DBMs credit indicator was stable in the year 2022. In the month of January 2023, Advance to bank and advance to public is decreased in this month compared to the month of December 2022.

Figure 04. DMBs Credit (Advances + Bills + Investment)



Source: Bangladesh Bank

External Sector Update

Foreign Direct Investment (FDI) in Bangladesh

Figure 1 shows that the Foreign Direct Investment (FDI) stood at USD 20,871.92 million at the end of July-September 2021, while it stood at USD 20,527.73 million at the end of July-September 2022 decreasing by USD 344.19 million.

Figure 01. Foreign Direct Investment

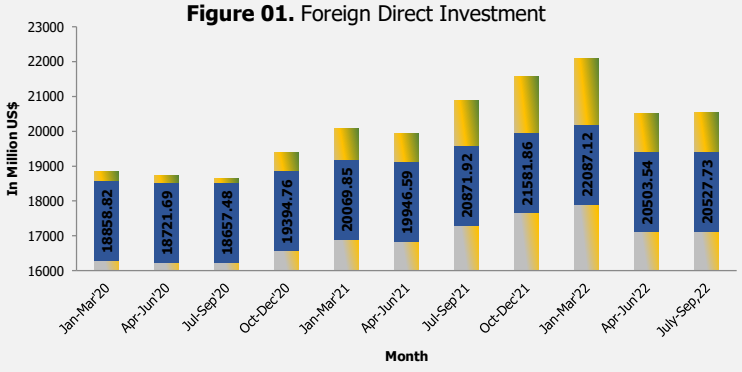
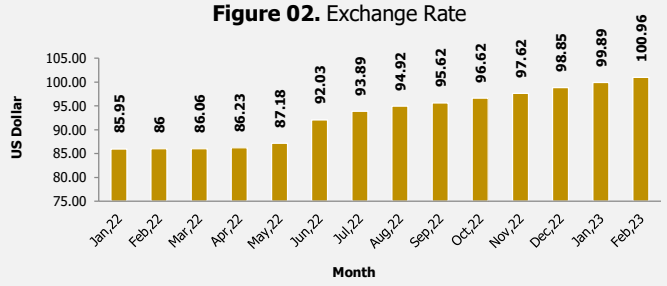


Figure 02. Exchange Rate



Data Source: Bangladesh Bank

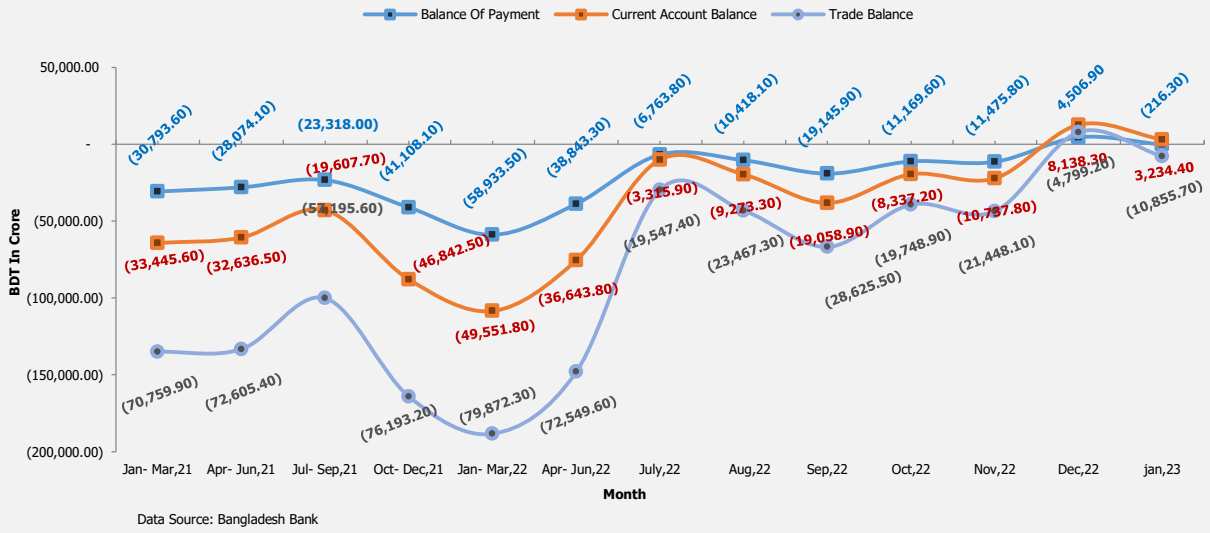
Exchange Rate

Figure 2 shows the exchange rate according to the Bangladesh Bank data which stands at USD 100.96 at the end of February 2023 while it was USD 86.00 at the end of February 2022. Figure 2 also shows that the exchange rate increased significantly from the month of February 2022 to February 2023 increasing by 14.96 US Dollar.

Balance of Payment

Figure 3 shows that the Balance of Payment stands at BDT 216.30 million at the end of January 2023, which increased from BDT 58,933.5 million at the end of January-March 2022. The Current Account Balance stands at BDT 3,234.40 million at the end of January 2023, while it was BDT 49,551.8 million at the end of January-March 2022. At the end of January-March 2022, the trade balance stood at BDT 79,872.3 million, which improved in January 2023 standing at BDT 10,855.70 million.

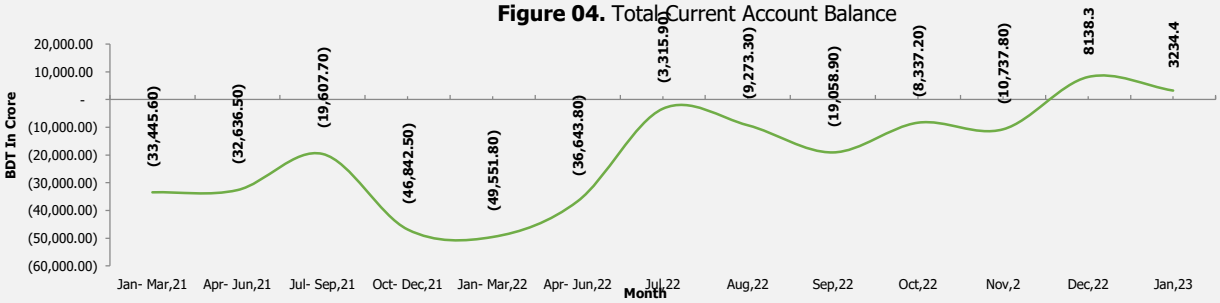
Figure 03. Overall Balance of Payment



Data Source: Bangladesh Bank

Current Account Balance

Figure 04. Total Current Account Balance



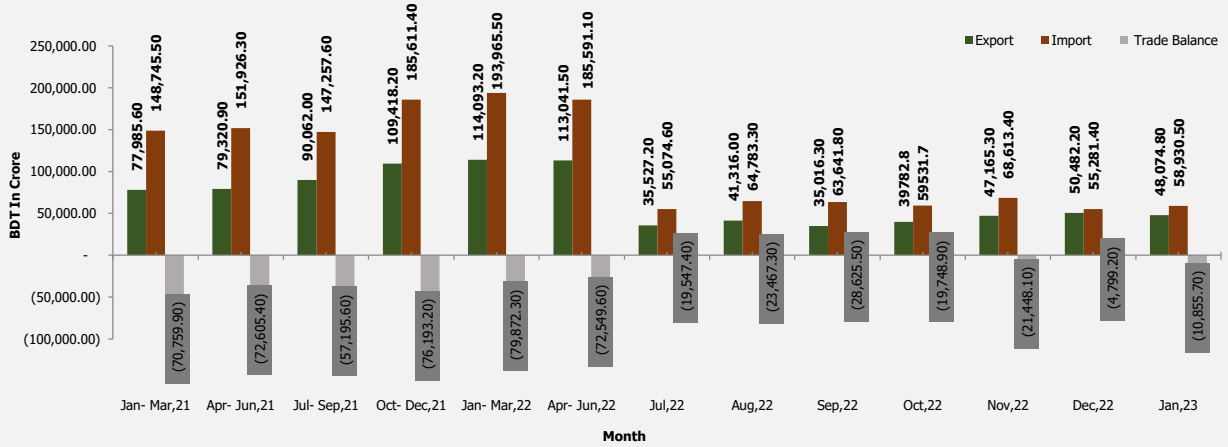
Data Source: Bangladesh Bank

Figure 4 shows the current account balance from Jan-Mar 2021 till January 2023. The data suggest that the deficit balance had declined from BDT 49,551.80 million at the end of January-March 2022 to BDT 3,234.40 million in January 2023. The current account balance improved over the year as per Bangladesh Bank data.

Export, Import and Trade Balance

Figure 5 shows the data statistics of Export, Import and Trade Balance of Bangladesh. Export receipts in January 2023 amounted to BDT 48,074.80 million which is lower than the January-March 2022 amount of BDT 114,093.20 million**.** Thus the export product decreased by BDT 6601.84million at the end of January 2023 compared to the end of January-March 2022. Import receipts in January 2023 amounted to BDT 58,930.50 million which decreased by BDT 135,035.00 million from January-March 2022's amount of BDT 193,965.50 million**.** The data also suggest that the Trade Balance deficit at the end of January 2023 decreased by BDT 69,016.6 million compared to January-March 2022.

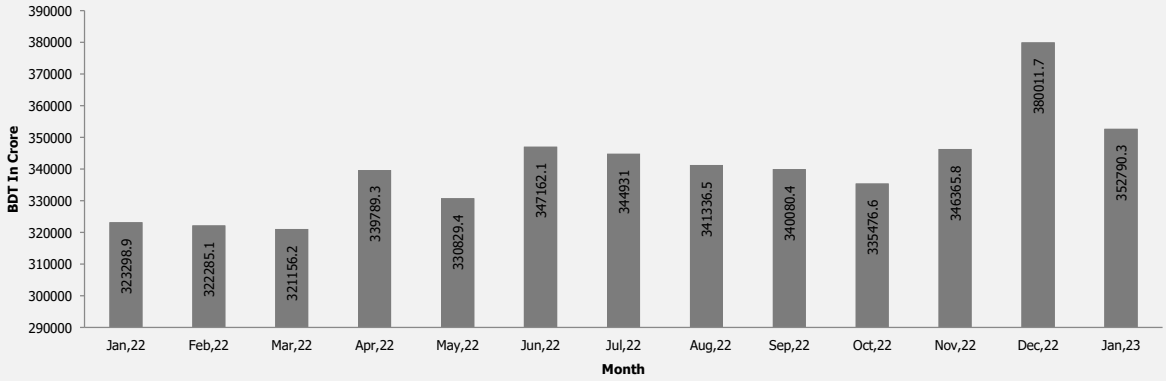
Figure 05. Export, Import and trade Balance



Data Source: Bangladesh Bank

Foreign Exchange Reserve

Figure 06. Foreign Exchange Resurve

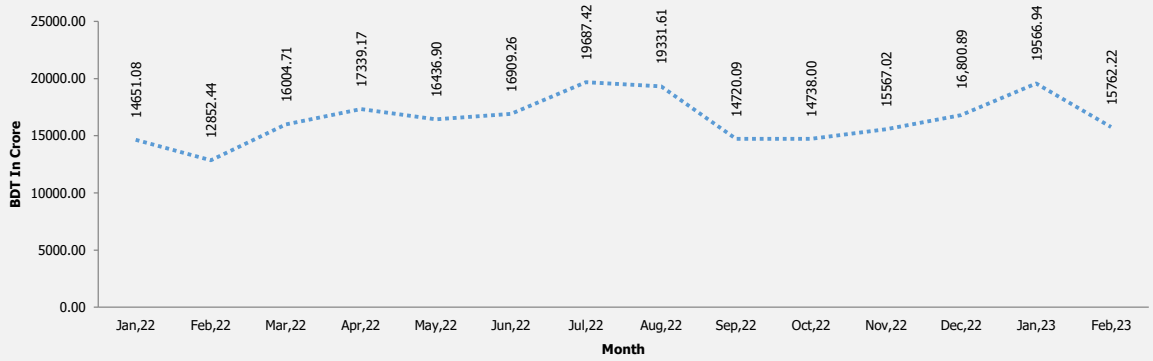


Data Source: Bangladesh Bank

Figure 6 shows that the Foreign Exchange Reserves stood at BDT 323,298.90 million in January 2022. The Foreign Exchange Reserves in Bangladesh fluctuated over the period. The Foreign Exchange Reserves increased by BDT 2,949.14 million at the end of January 2023 compared to the reserves held at the end of January 2022.

Workers' Remittance

Figure 07. Worker's Remittance



Data Source: Bangladesh Bank

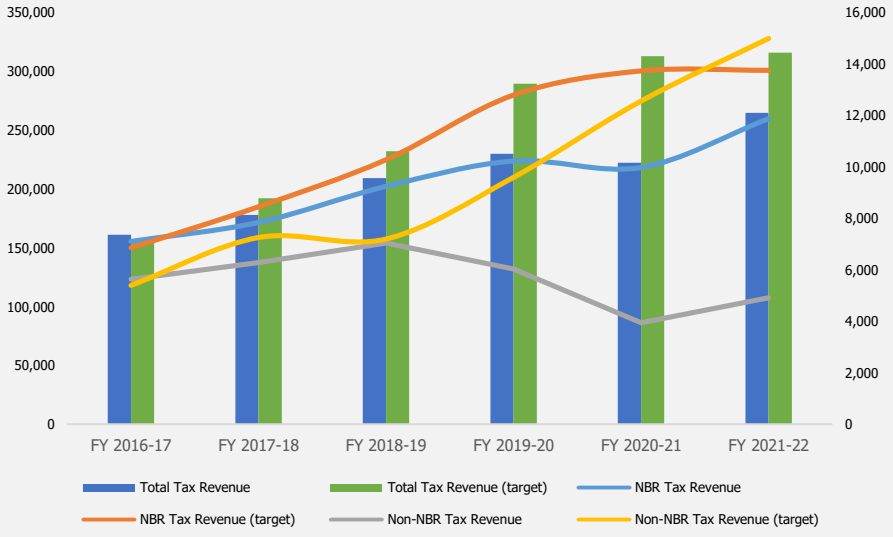
Figure 7 shows the worker's remittance flow from January 2022 to February 2023. The data shows that the remittance stood at BDT 15,762.22 million at the end of February 2023 which was BDT 12,852.44 million at the end of February 2022. Workers' remittance increased by BDT 2909.78 million at the end of January 2023 compared to the end of January 2022.

Fiscal Sector Update

The NBR tax revenue collection data shows during July to December of FY23 stood at Taka 142,923.21 crore which was higher by Taka 13,861.57 crore or 10.74% against the collection of Taka 129,061.64 crore during July-December of FY22 (Table 1).

Total tax revenue (NBR & Non-NBR) during July-December of FY23 stood at Taka 142,923.21 crore which was higher by 10.74% against the collection of Taka 147,895.47 crore during FY23 (Table 1). The collection of total tax revenue during July-Decemebr of FY23 grew by BDT 93,285.04 crore.

Figure 01. Yearly NBR and Non-NBR Tax Revinue



Source: Bangladesh Bank

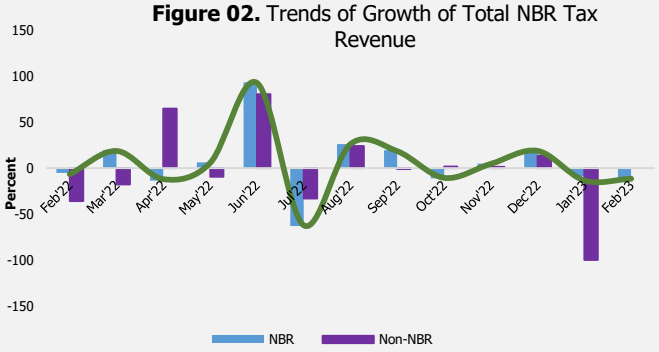
Table 03. NBR and Non-NBR Tax Revenue, FY22 & FY23

(Taka In Crore)

	NBR Tax Revenue (FY23)					Non NBR Tax Revenue	Total NBR Revenue Collection	NBR Tax Revenue (FY22)					Non NBR Tax Revenue	Total NBR Revenue Collection
	Customs duties	VAT	Income Tax	others	NBR Tax Revenue Total			Customs duties	VAT	Income Tax	others	NBR Tax Revenue Total		
	1	2	3	4	5=(1+,,+4)	6	7=(5+6)	1	2	3	4	5=(1+,,+4)	6	7=(5+6)
July	2692.53	5557.52	4656.93	4911.18	17818.16	1067.18	18885.34	1933.39	6777.31	4711.41	1932.22	15354.33	217.21	15571.54
August	3330.91	13308.34	5544.96	288.15	22472.36	1320.52	23792.88	2556.05	8184.75	5242.96	3210.85	19194.61	418.54	19613.15
September	3026.84	13847.62	9606.29	353.18	26833.93	1303.47	28137.40	3230.27	9106.30	7917.00	3548.64	23802.21	215.60	24017.81
October	2979.88	13918.16	6527.94	364.32	23790.30	1322.43	25096.55	2723.41	8996.16	5669.14	3728.21	21116.92	509.62	21626.54
November	3109.85	14670.82	6628.00	491.33	24900.00	1338.46	24722.77	2876.28	9479.29	5971.02	3801.27	22127.86	554.86	22682.72
December	2722.65	13747.04	10991.98	2152.18	29613.85	1517.54	0.00	2907.56	9616.95	9859.65	5128.61	27512.77	582.98	28095.75
January	3053.41	14531.78	8504.11	789.49	26878.79	-	0.00	2953.04	9929.24	7036.32	4429.31	24347.91	1136.25	25484.16
February	2672.96	13263.36	7046.36	744.50	23727.18	-	0.00	3080.29	9677.34	6446.87	3815.06	23019.56	726.10	23745.66
March	-	-	-	-	0.00	-	0.00	3238.22	9882.06	10252.53	4177.11	27549.92	594.83	28144.75
April	-	-	-	-	0.00	-	0.00	3153.48	10226.88	6003.38	4346.76	23730.50	979.86	24710.36
May	-	-	-	-	0.00	-	0.00	3014.08	10358.01	7411.86	4380.22	25164.17	885.52	26049.69
June	-	-	-	-	0.00	-	0.00	3597.94	18034.75	26386.02	585.89	48604.60	1597.69	50202.29
Total	**23589.03**	**102844.64**	**59506.57**	**10094.33**	**196034.57**	**7869.60**	**147895.47**	**31666.07**	**102234.29**	**76522.14**	**42498.26**	**252920.76**	**4955.99**	**257876.75**

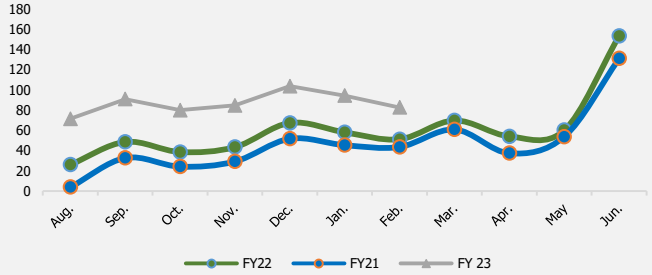
Source: Bangladesh Bank; Major Economic Indicators: Monthly Update;

Figure 02. Trends of Growth of Total NBR Tax Revenue



Source: Bangladesh Bank

Figure 03. Cumulative Growth of NBR Total Revenue

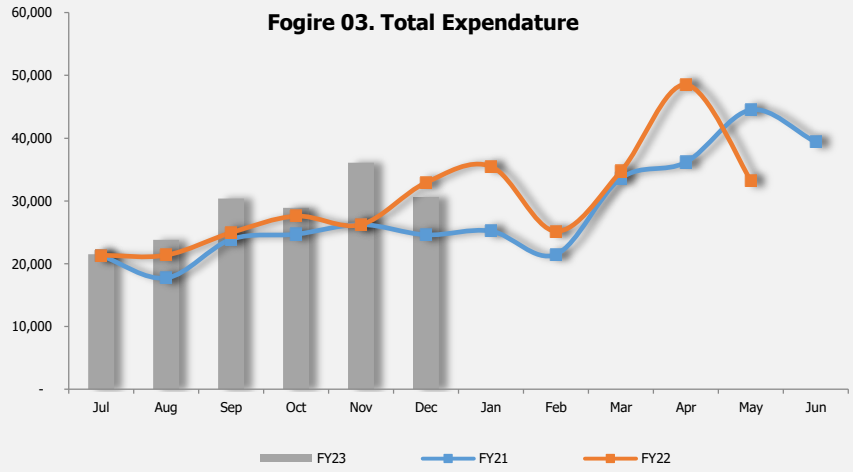


Source: Bangladesh Bank

Figure 2 shows the trends of Month-over-Month growth of NBR tax revenue. On the other hand, Figure 3 shows the cumulative growth of NBR total revenue (sum of NBR tax and non-NBR tax) where the cumulative growth up to February of FY23 was 82.46%, which is 36.21% more than the February of the previous FY22. This cumulative growth was 51.09% up to February of FY22.

The total government expenditure in December. FY23 was BDT 30,634 crore, which is 6.99% lower than the previous year (FY22) in the same month BDT 32,935 crore.

Fogire 03. Total Expendature



Source: Bangladesh Bank

Table 01. Selected Economic Indicators

Country	Unemployment Rate [%]	Repo Rate [%]	Consumer Price Index [CPI]	Balance of Trade [billion $]	Consumer Credit [billion $]
Bangladesh	…	6.00	333.34	-1.43	166.11
India	7.10	6.50	176.5	-17.75	…
Malaysia	3.60	…	129.5	4.00	…
Vietnam	…	6.00	110.42	3.60	…
UK	3.70	3.50	126.45	-7.27	…
USA	3.40	…	299.17	-68.30	1,854.40

Source: Trading Economics [January 2023]

According to data, the unemployment rate of India, decreased in January 2023 and stood at 7.10% compared to the previous month. Unemployment rate of Malaysia and the UK, remained constant as the previous month at 3.6% and 3.70%, respectively. Contrastingly, the USA's unemployment rate slightly fell to 3.40%.

The repo rate of Bangladesh, India and the UK increased in January 2023 and stood at 6.00%, 6.50% and 3.50% respectively whereas, the repo rate of Vietnam remained constant standing at 6.00%. The deficit balance of India and the UK in January 2023 declined standing at USD 17.75 billion and USD 7.27 billion, whereas, Bangladesh and the USA experienced increased deficit balances of USD 1.43 billion and USD 68.3 billion respectively. Nevertheless, the balance of trade for Malaysia and Vietnam stood at USD 4.00 billion and USD 3.60 billion with a positive balance. Other than for the UK the consumer price index experienced an increase in Bangladesh, India, Malaysia, Vietnam and the USA in January 2023. The consumer credit for countries like Bangladesh and the USA experienced a decrease.

Figure 1 show the price per ounce of gold and silver in the BDT currency (where one ounce equals 2.43 bhori). In the recent year, the highest price of gold was BDT 212,354 in March 2023, and the lowest price of gold was BDT 162,698 on August 2022. On the other hand, the highest silver selling price per ounce was BDT 2,558 in March 2023, and the lowest selling price was BDT 1,712 in August 2022. However, the latest price of gold was 26.49% higher than the previous year's price, and the price of silver which was 19.03% higher than the previous year's price.

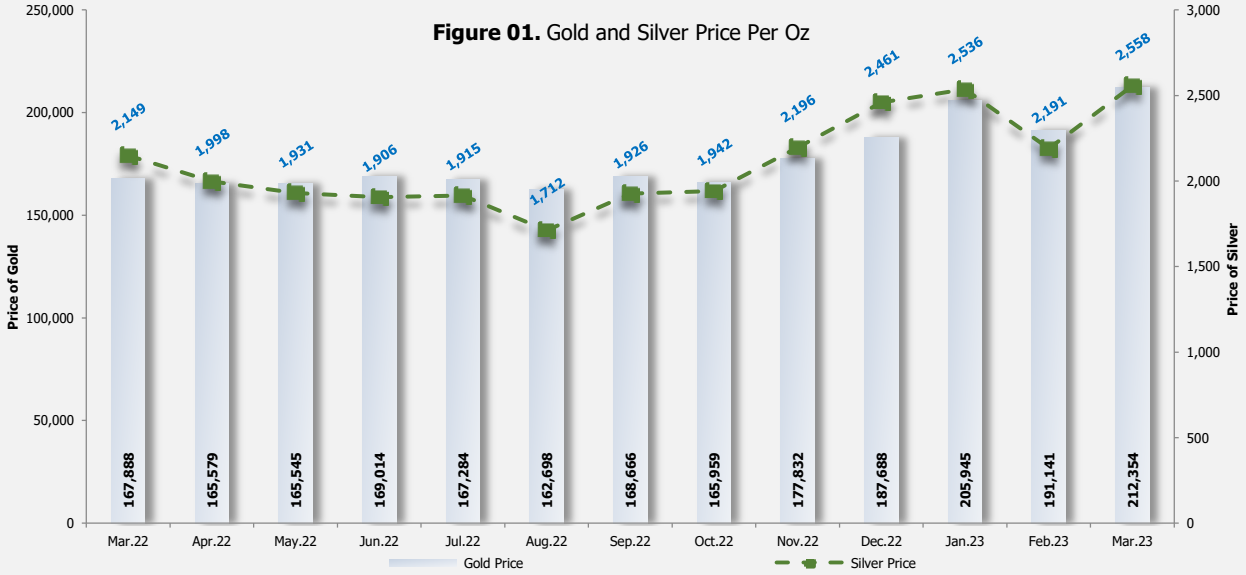


Figure 01. Gold and Silver Price Per Oz

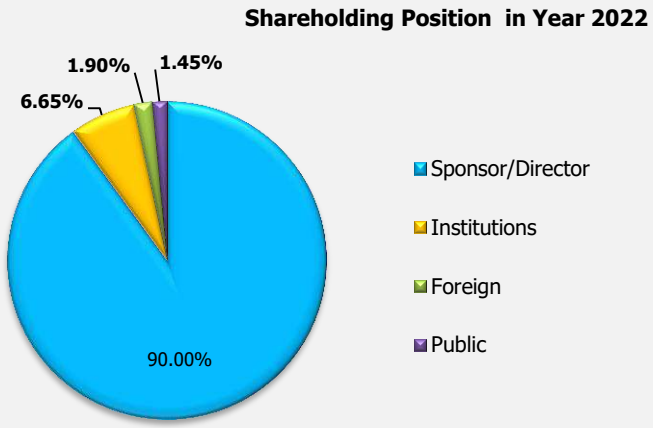
Source: Goldprice

Stock Analysis of Marico Bangladesh Limited

Table 01. Stock Statistics

Particulars	Details
Company	Marico Bangladesh Limited
Stock Code	MARICO
Listing Year	2009
Market Category	A
Sector	Pharmaceuticals & Chemicals
Marker Capitalization (BDT in Million)	76,277.25
Authorized Capital (BDT in Million)	400.00
Paid Up Capital (BDT in Million)	315.00
Total Shares	31,500,000
P/E (Interim) as on 30-Mar-2023	19.23
P/E (Audited) as on 30-Mar-2023	21.46
52 Weeks Range	2,300.00 - 2,585.00
Beta	0.21

Figure 01. Shareholding Position



Business Overview

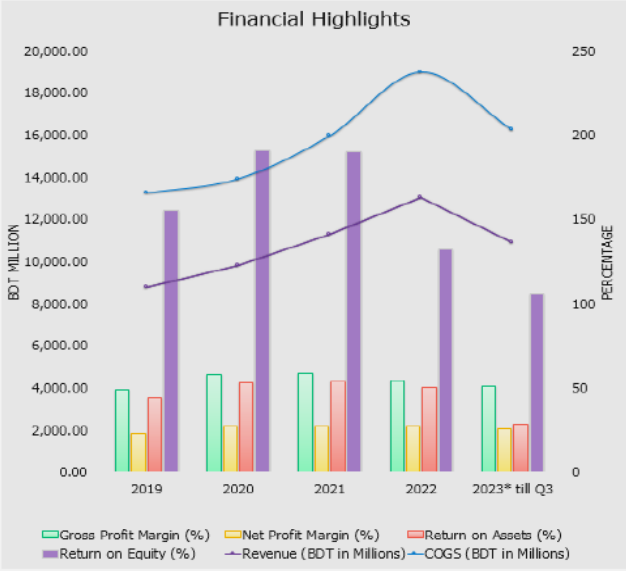
- **Date of Incorporation:** September 6, 1999
- **Commencement of Commercial Production:** 27th October, 2002
- **Chairman:** Mr. Saugata Gupta
- **Managing Director & CEO:** Mr. Ashish Goupal
- **Corporate Office:** The Glass House, Level-06, Plot-02, Block. SE (B), Gulshan Avenue, Dhaka-1212.
- **Nature of Business:** Manufacturing and marketing of personal care and foods categories products which are sold in local market.
  - **Capacity:** Parachute Coconut Oil (PCNO)-36500 kiloliters, Copra Crushing-72,000 MT, Value Added Hair Oil (VAHO)-17,160 MT
  - **Total Employee:** 350
  - **Total Marketing & Sales Personnel:** 189 approximately

Key Financial Highlights

Table 02. Financial Highlights

Particulars	2021	2022	2023*
Revenue (BDT in Millions)	11,306.52	13,032.19	10,923.45
COGS (BDT in Millions)	4,652.26	5,960.80	5,328.18
Gross Profit Margin (%)	58.85	54.26	51.22
Net Profit Margin (%)	27.49	27.27	25.85
Return on Assets (%)	53.65	50.43	28.60
Return on Equity (%)	189.95	132.16	105.70
Current Ratio (x)	1.1	1.34	1.17
Debt-to-Equity (x)	0.25	0.05	0.04

*Q3 of FY2023 (First Nine Months till December 2022)



Initial rating of "AA+" in the long term and "ST-1" in the short term along with Stable outlook had been assigned by Emerging Credit Rating Limited (ECRL) based on audited financial statements of the company.

The Company's flagship brand Parachute covers around 62% of the total revenue of the company in FY2022 and completed its 12 years of footprint in the Bangladesh market.

Earnings per share (EPS) for the third quarter of FY2023 were BDT 30.93, compared to BDT 27.35 in the same period last year.

Revenue surged by 7.03 per cent in third quarter of FY2023 with a fall in the marketing costs by 28.78 per cent compared to same period last year.

In the third quarter of the current fiscal year 2023, the company earned BDT 97.43 crore in net profit, with 13% increase from BDT 86.15 crore in the same period last year.

The earnings per share (EPS) stood at BDT 30.93 in the Q3 of FY23 increasing from BDT 27.35 in the same quarter the previous financial year.

Net Operating Cash Flow per Share was BDT 101.75 for the nine months FY2021-2022 which increased to BDT 123.01 in the same period of current financial year.

Historical Financial Performance

Table 03. Company Basics

Particulars	2018	2019	2020	2021	2022
Market Cap (BDT in crore)	3,824	4,526	4,922	6,543	7,419
Dividend Payout Ratio (%)	115.06%	101.19%	113.09%	91.20%	70.91%
Dividend per Share (BDT)	60	65	95	90	80
Basic Earnings per Share (BDT)	52.15	64.23	84.01	98.69	112.82
Year-End Price (BDT)	1,214	1,437	1,563	2,077	2,355
Price-Earnings Ratio at Year-End (BDT)	23.28	22.37	18.60	21.05	20.88
Average Trading Volume per Trading Day (Shares)	2,281	3,672	4,622	7,705.85	6,912.71
Net Asset value per share (BDT)	47.38	41.34	44.05	51.95	85.37
Share price (BDT)	1,021.7	1,160.0	1,517.5	1,562.5	2,421.5

Table 04. Company Financial Performance

Profitability						
Particulars	2018	2019	2020	2021	2022	2023* till Q3
Revenue (BDT in Millions)	7,814.66	8,768.16	9,795.91	11,306.52	13,032.19	10,923.45
Revenue Growth (%)	12.99	12.2	11.72	15.42	15.26	11.76
COGS (BDT in Millions)	4,229.52	4,472.70	4,124.37	4,652.26	5,960.80	5,328.18
COGS Growth (%)	13.99	5.75	-7.79	12.8	28.13	19.18
Gross Profit Margin (%)	45.88	48.99	57.9	58.85	54.26	51.22
Operating Profit Margin (%)	27.33	29.56	34.49	37.9	35.64	35.10
Net Profit Margin (%)	21.02	23.08	27.01	27.49	27.27	25.85
Return on Assets (%)	37	44.21	52.84	53.65	50.43	28.60
Return on Equity (%)	110	155.39	190.7	189.95	132.16	105.70
Liquidity						
Particulars	2018	2019	2020	2021	2022	2023* till Q3
Current Ratio (x)	1.32	1.25	1.22	1.1	1.34	1.17
Quick Assets Ratio (x)	0.73	0.91	0.74	0.6	0.79	0.81
CFO (BDT in millions)	1,541.08	1,945.32	3,012.96	3,304.61	3,605.35	3,874.94
Leverage						
Particulars	2018	2019	2020	2021	2022	2023* till Q3
Debt-to-Equity (x)	0.20	0.15	0.15	0.25	0.05	0.04
Total Liability-to-Total Assets	0.42	0.72	0.72	0.72	0.62	0.73

*Q3 of FY2023 (First Nine Months till December 2022)

Strength

- Diversified business portfolio focusing on the needs of the target customers
- Earned trust and goodwill of customers and stakeholders through coconut oil brand.
- strategy has aided a brand's evolution through a slew of successful products that have moved from mass markets to niche markets.

Risk

- Having too many items in its portfolio and a presence in too many industries makes it harder to concentrate on just one of them and allocate resources to it.
- Increase in bargaining power of buyers
- Change in preference and moving towards organic solution for oil

Figure 02. Revenue Composition

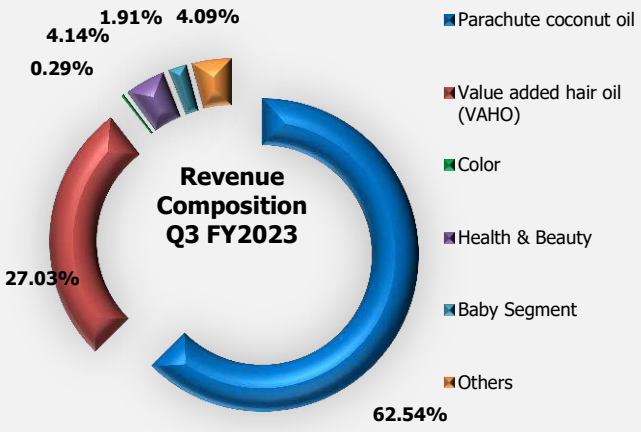


Figure 03. Cost & Expenses

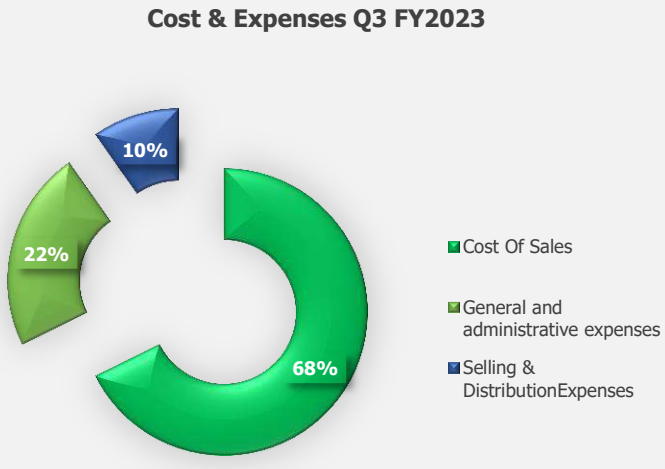


Figure 04. Price Volume Movement Trend

Figure 05. Dividend Payout Ratio

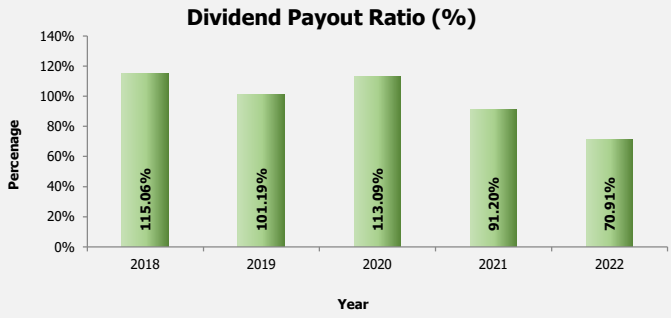


Figure 06. Market Capitalization Trend

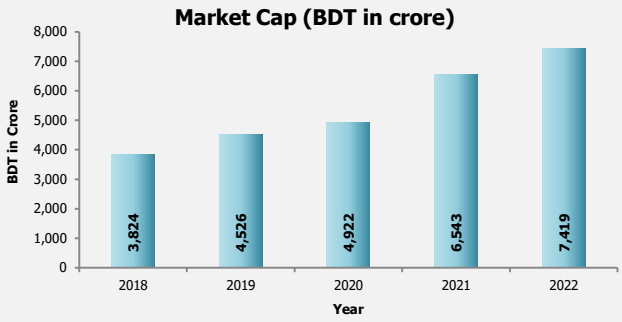


Figure 07. Dividend per Share, Earnings per Share, Net Asset value, Price Earnings Ratio

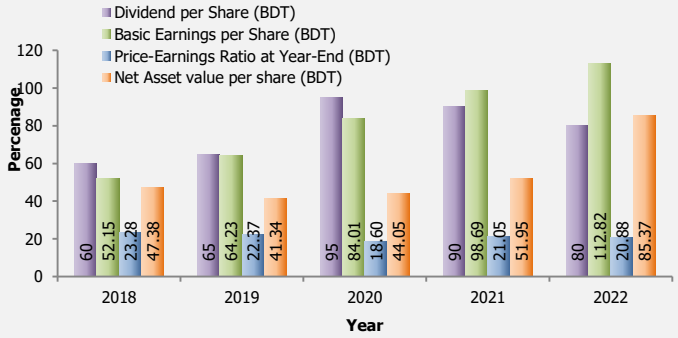
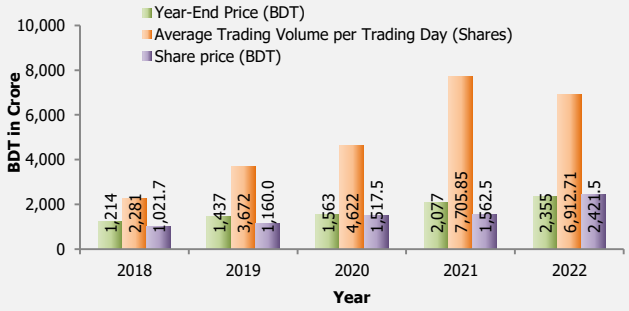


Figure 08. Price per Share, Average Share Volume per



Future Investments of Marico

- Marico has commenced construction of its 3rd and largest manufacturing unit in at Bangabandhu Shilpanagar in the Mirsarai special economic zone (SEZ) and a phase-wise investment of Tk. 227.00 crore for the purpose of increasing manufacturing capacity and setting up operations.
- With Bangladesh's thriving e-commerce industry worth approximately USD 1.6 billion, Marico is also investing more in digital marketing and innovative ways for consumers to connect via social media.

Industry Highlights

- According to an industry insider, Bangladesh's FMCG market value increased from USD 3.70 billion to USD 3.90 billion in FY2022.
- Bangladesh Bureau of Statistics data states that, consumption spending in rural areas rose dramatically over the previous 15 years, rising from 81% to 103%. The reason for this surge is resulted from the rising consumption of FMCG products in rural areas which is considered to be one of the major drivers of the industry growth.
- The hair oil market in Bangladesh once depended on local brands. The market is growing rapidly and now being dominated by foreign brands. The brand and non-brand coconut oil market is now worth BDT 2,000 crore.
- Coconut oil market comprises the majority share of the hair oil market which is 46%, followed by light hair oil comprising 16%, with 15% by amla-based oil, 11% by cooling oils, and 12% by other oils.
- Throughout the next few years until 2025, the market is expected to grow at a compound annual growth rate (CAGR) of 5.5% to USD 54 million according to data by market insiders.
- Copra, or dried coconut meat, is the key raw material used to produce coconut oil. The prime locations from which copra is imported include India, followed by Indonesia, Sri Lanka, and the Philippines.
- When copra price increases in the international market, profit margins shrink as it becomes more expensive to manufacture coconut oil.

Figure 09. Hair Oil Market Share

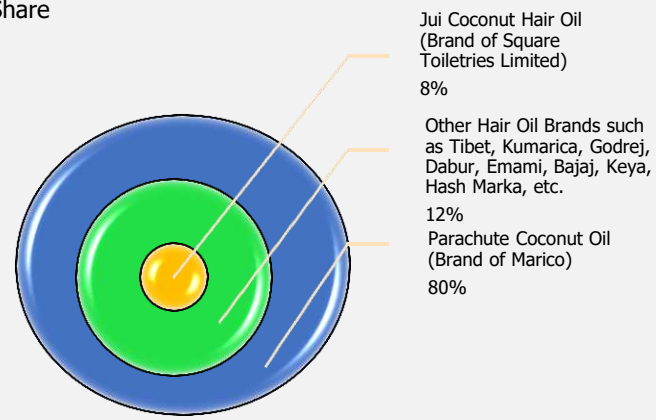


Table 05. Peer Analysis using DSE data

Category	MARICO	ACI	KOHINOOR	RECKITTBEN
NAV	84.81	128.29	54.02	176.8
Turnover	10923.45	57065	2692.88	-
Dividend Yield (%)	1.24	1.92	0.5	2.06
Current Ratio	1.029	0.742	2.397	1.177
Quick Ratio	0.535	0.398	1.294	0.883
Cash Ratio	0.099	0.076	0.736	0.846
Debt to Equity	0.25	0.706	0.264	-
Debt to Total Assets	0.72	0.109	0.128	-
Financial Leverage	3.54	6.494	2.061	4.016
Interest Coverage	226.55	1.477	72.264	97.687
Operating Cash Flow to sales	0.292	-0.023	0.099	0.257
Gross Profit Margin	0.59	0.269	0.193	0.565
Operating Profit Margin	0.379	0.065	0.072	0.203
Net Profit Margin	0.275	0.005	0.056	0.139
Return on Equity (ROE)	1.9	0.039	0.19	0.915
Net Fixed Asset Turnover	0.537	2.708	13.675	0.228
Equity Turnover	1.951	7.273	3.377	1.644

Dr. Jamaluddin Ahmed, FCA
Chairman

Dr. Jamaluddin Ahmed is one of the sponsor directors of Emerging Credit Rating Ltd. (ECRL). He is also the Chairman of the company. Professionally a Chartered Accountant and the fellow member of the Institute of Chartered Accountants of Bangladesh (ICAB) since 1990; he has been awarded PhD in Accounting from Cardiff Business School, University of Wales, under Commonwealth Scholarship in 1996, and secured First Class in Masters Degree and Bachelors with Honours from Accounting Department of Dhaka University.

He has many years of experience in the financial sector of Bangladesh and has used his expertise and experience to carryout numerous research work and publications. He is the Audit Engagement Partner of 10 banks and leasing companies, 4 energy companies, 10 listed non-bank companies and tax advisor for many local and multinational companies. He also performs the following responsibilities:

- The Board of Directors of Janata Bank Limited (2008-2013), Essential Drugs Limited, Power Grid Company of Bangladesh Limited.
- The Chairman of Board Audit Committee of Janata Bank Limited (2008-2013) and Power Grid Company of Bangladesh Limited.
- The Member of Board of Directors and Chairman of Audit Committee of Grameen Phone Limited, Advisor to the Board and Audit Committee of Bangladesh Bank.
- Previously He had been the representation of ICAB to the Board of Dhaka WASA, Dhaka Stock Exchange Ltd, Consultative Committee at the Security and Exchange Commission, Bangladesh Telecommunication Company Limited.
- From 1999 to 2013 he was a partner at Hoda Vasi Chowdhury & Co., An Independent Firm of Deloitte Touche & Tohmatsu. He has taken a number of training courses in the power and energy sector and has completed assignments at numerous banks.

Mr. N K A Mobin, FCS, FCA
Executive President

Mr. N K A Mobin is a veteran businessman and skilled in a broad range of trade ventures. He is one of the 4 sponsor Directors of the Emerging Credit Rating Ltd, the eminent credit rating agency in Bangladesh. Mr. Mobin has completed his Bachelor of Business Administration & Masters of Business Administration from University of Dhaka majoring in Finance with first class result. He is a Fellow Member of the Institute of Chartered Accountants of Bangladesh (ICAB) & Institute of Chartered Secretaries and Managers of Bangladesh (ICSMB) since 1992 & since 1998, respectively. He is also a Member of Institute of Financial Consultants (IFC) of USA since 2002.

Mr. Mobin has working experience of more than 34 years in different corporate arena like financial management system including the budgeting and reporting system, Tax management and optimization in tax expenses, involved in different projects cost optimization/efficiency and revenue maximization areas, etc. He has been Director Projects & Administration and Director Finance and Company Secretary in Grameenphone Ltd. (GP). He has also been the Director Finance and Company Secretary in Novartis (Bangladesh) Limited. He also performs the following responsibilities:

- People's Leasing and Financial Services Limited – Court appointed as the Director of People's Leasing and Financial Services Limited.
- Dhaka Chamber of Commerce and Industry (DCCI) – Appointed as one of the Board members for 2020-2022 and also Senior Vice President for 2021.
- Institute of Chartered Accountants of Bangladesh (ICAB) – Elected Council member for 2019-21 and Ex Vice President (Education and Examination) for 2019.
- Unique Hotel And Resort - Appointed as the Independent Director of Unique Hotel And Resort

Mr. Arifur Rahman, FCCA, FCA, CSAA
Chief Executive Officer

Mr. Arifur Rahman is a dynamic professional representing the Emerging Credit Rating Limited as the Director and Chief Operating Officer, the distinguished credit rating agency in Bangladesh. He has completed his B.Sc. (Hons) in Civil Engineering with first class result from Bangladesh University of Engineering & Technology (BUET) and also completed BSc (Hons) achieving higher second class honors (2:1) in Applied Accounting from Oxford Brookes University.
Mr. Rahman has 21 years of expertise in the various sectors like Civil Engineering, Auditing, Financial Consultancy, Feasibility Studies, and Tax Advisory and Planning etc. He is also a Certified Sharia Adviser & Auditor (CSAA). He is actively involved in taking charge of the technical and organizational interests and advising the company in articulating current business strategies as well as future growth potentials. He is responsible to administer different departments and plays an important role in taking the managerial and operational decisions of the organization. Mr. Rahman is also the Fellow Member of the Association of Chartered Certified Accountant. Mr. Rahman is qualified as a chartered accountant from the institute of the Institute of Chartered Accountants of Bangladesh (ICAB).

 **Mr. Saami Alam** Chief Rating Officer	Mr. Saami Alam is a dedicated and enthusiastic professional holding the position of the Chief Rating Officer in Emerging Credit Rating Limited since 2018 having work experience of more than nine years. He joined ECRL in the year 2011 and has been actively involved in the strategic and management decision making. Mr. Alam completed his Bachelor of Business Administration and Masters of Business Administration from North South University majoring in Finance. Along with supervising the credit rating reports, he is co-coordinating different industry analysis, feasibility studies, and other projects. He is involved in preparing and presenting financial and economic models for management, board of directors, investors and lenders. He is responsible to supervising overall operational management, co-ordinate and control the department work process to meet common target and evaluating performances of the team members. He is a member of Internal Rating Committee in ECRL.
 **Ms. Zenith Matin, ACCA** Deputy Chief Rating Officer	Ms. Zenith Matin completed ACCA (Association of Certified Chartered Accountants) and BSc in Applied Accounting from Oxford Brookes University, UK. She completed her Master of Business Administration majoring in Finance from Independent University, Bangladesh. Ms. Matin joined ECRL in the year 2011 and is holding the position of the Deputy Chief Rating Officer in Emerging Credit Rating Limited since 2018. She has working experience of more than nine years in the related field. She is responsible to supervise and co-ordinate different projects which involve preparation of financial and economic models. She is a member of Internal Rating Committee in ECRL and co-ordinate and control the department work process to meet common target. She is also involved in the performance evaluation of the team members.
 **Mr. Md. Harun Chowdhury** Portfolio Manager	Mr. Md. Harun Chowdhury completed Bachelor of Business Administration major in Finance from Dhaka University. Mr. Chowdhury joined ECRL in the year 2013 and is holding the position of the Assistant Portfolio Manager in Emerging Credit Rating Limited since 2020. He has working experience of more than seven years in related field. He is responsible to supervise and coordinate different projects, NBFI and Bank Rating which involve preparation and analysis of financial models, co-ordinate training and setting strategies for meeting operational goals of the department work process to meet common target. He is a member of Internal Rating Committee in ECRL and is also involved in the performance assessment and evaluation of the team members.
 **Mr. Md. Nawshad Parvez** Senior Financial Analyst	Mr. Md. Parvez completed Bachelor of B.Com Honors and Master's in Accounting from National University. He also earned a BSc Honors in Applied Accounting from Oxford Brookes University, UK and has completed 12 out of 13 ACCA papers. Mr. Parvez joined ECRL in the year 2018 and is holding the position of the Senior Financial Analyst in Emerging Credit Rating Limited since 2018. He has working experience in the accounts and finance for around ten years including in the UK. At ECRL, he is responsible to supervise and co-ordinate different projects which involve preparation of financial and economic models. He is a member of Internal Rating Committee in ECRL and co-ordinate and control the department work process to meet common target. He is also involved in the performance evaluation of the team members.

Research Team

Mr. Al Mamun
Research Fellow

Mr. Al Mamun is a Research Fellow at ECRL, working on different issues related to macroeconomic analysis, industry research, data bank development, project management, and the financial & banking sector. In addition, he is also interested in working on macroeconomic policies, energy, and environmental-related issues.

Mr. Mamun also served as a Research Fellow at the Center for Policy and Economic Research (CPER). He played a remarkable role in the industry, labor market discrimination, poverty, international trade, sustainable development, etc.

Mr. Mamun completed an undergraduate and postgraduate program in Economics from East West University, Bangladesh. He also obtained an advanced degree in Statistics from the same university.

Ms. Nabihatul Afrooz
Senior Research Associate

Ms. Nabihatul Afrooz completed her Master of Science in Economics from City University London, UK and Bachelor of Business Administration major in Finance & Economics from East West University. She has working experience of more than four years on different projects, financial reporting and credit rating assessments.

Ms. Afrooz joined ECRL in the year 2016 and had been holding the position of Financial Analyst since 2020. She is engaged in different tasks, meeting common target or completing special project assigned by the management and writing reports which involve analyzing assorted industry data (both primary & secondary) and preparation of financial and economic research. She is also responsible to prepare and analyze different research based projects, survey questionnaire, data management, etc.

Mr. Md. Asaduzzaman
Research Associate

Md. Asaduzzaman accomplished his Master of Business Administration (MBA) in Finance and Banking from Manarat International University, BD and Bachelor of Business Administration (BBA) major in Finance and Banking from the same university. He has working experience of more than two and half years on different projects, financial reporting and credit rating assessments.

He joined ECRL in 2022 and collaborated with credit rating corporate clientele as well as research team in the preparation and analysis of various industries. He enjoys working with financial data while having academic knowledge of financial planning, analysis and projection for companies and corporations.

Mr. Md. Junaid Bogdad
Research Associate

Mr. Md. Junaid Bogdad completed Bachelor of Business Administration (BBA) & Masters of Business Administration (MBA) majoring in Finance from the University of Dhaka. Mr. Junaid joined ECRL in the year 2022 as Research Associate. He has working experience in the capital market and related fields. He is responsible for keeping track of the microeconomic and preparing analysis reports on recent macroeconomic updates.
He is also responsible for preparing industry analysis reports and involves in the document verification system of selected entities. He has experience in company valuation, IPO valuation, and financial modeling and he has research experience on capital market issues.

Mr. Md. Nahidul Islam Shawon
Research Analyst

Mr. Md. Nahidul Islam Shawon completed his Master of Science and Bachelor of Science in Applied Statistics from East West University. He has working experience of more than one and half years on different projects and Industrial reporting. He has also worked as a Graduate Teaching Assistant (GTA) and Undergraduate Teaching Assistant (UTA) Department of Applied Statistics, East West University.

Mr. Md. Nahidul Islam Shawon joined ECRL in 2022 and is still working in the ECRL. Md. Nahidul Islam Shawon is a Research Analyst at ECRL, working on different issues related to Statistical data analysis, data collection, data Input, Industry Analysis and report write, forcasting and to prepare and analysis research based projects. Additionally he is quite interested in biostatistics, data science and artificial neural Network.

About ECRL

Emerging Credit Rating Limited (hereinafter referred to as ECRL) began its journey in the year 2009 with the motive to deliver credible superior & quality credit rating opinion in various industry segments around Bangladesh. ECRL obtained credit rating license from Bangladesh Securities and Exchange Commission (BSEC) in June 2010 as per Credit Rating Companies Rules 1996 and also received Bangladesh Bank Recognition as an External Credit Assessment Institutions (ECAI) in October 2010 to do the rating of Banks, Financial Institutions and their borrowers and also from Insurance Development & Regulatory Authority (IDRA) in 2015 to do the rating of Insurance Companies & affiliated with Malaysian Rating Corporation Berhad.

Emerging Credit Rating Limited's team is oriented towards the continuous improvement of processes, striving for an important role in the leadership of the business world. Every individual in ECRL is committed to providing topmost ingenious Credit Rating Services and Comprehensive Research Services in Bangladesh. ECRL's rating services and solutions reflect independence, professional, transparency and impartial opinions, which assist businesses in enhancing the quality of their decisions and helping issuers access a broader investor base and even smaller known companies approach the money and capital markets. The Credit Rating process is an informed, well-researched and intended opinion of rating agencies on the creditworthiness of issuers or issues in terms of their/ its ability and willingness of discharging its financial obligations in a timely manner. Issuers, lenders, fixed-income investors use these risk assessments for the purpose of lending to or investment in a corporation (such as a financial institution, an insurance company, a non-banking corporation or a corporate entity) as well as evaluating the risk of default of an organization's financial obligations in terms of loan or debt.

Editorial Overview

ECRL Research *provides insights, opinions and analysis on Bangladesh and International Economies. ECRL Research conducts surveys and produces working papers and reports on Bangladesh's different socio economic issues, industries and capital market. It also provides training programs to professionals from financial and economic sectors on a wide array of technical issues.*

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Dhaka Office
Shams Rangs, House 104, Park Road
Level-A1, A2 & A5
Baridhara, Dhaka-1212
Tel: +880 2222260911, +880 2222260897
Fax: +880 2222260828
Email: info@emergingrating.com

Chattogram Office
Al Madina Tower, 6th Floor
88-89, Agrabad C/A, Chittagong
Tel: +880 1833 330059, +880 1833 330061

Bogura Office
MA Complex, 3rd Floor, East Side. Tin Matha Railgate.
Bogra- 5800

Khulna Office
Mollick Shopping Complex
99 Khan –a- Sabur Road,
Khulna-9100
Tel: +880 1833 330060