IDLC MONTHLY

BUSINESS

REVIEW







RICE MILL INDUSTRY OF BANGLADESH

PRESENT MARKET SCENERIO AND FUTURE PROSPECTS











আইডিএলসি ফিব্সড ডিপোজিট

আস্থা থাক বিশ্বস্ত হাতে

আইডিএলসি'র কাছে আপনার প্রতিটি টাকা বিশ্বাসের আমানত। তাই, গত ৩৪ বছর ধরে স্বচ্ছতা, সর্বোচ্চ সুশাসন ও ফাইন্যান্সিয়াল সেন্টরের অভিজ্ঞতাকে দক্ষতার সাথে কাজে লাগিয়ে ব্যবসা পরিচালনা করছি আমরা। যেনো আপনার টাকা নিশ্চিতভাবে বাড়তে থাকে নিরাপদে।

- দেশজুড়ে ২০টি জেলা শহরে ৪০টি শাখা
- আপনার সেবায় ১৪০০ জন নিয়োজিত কর্মী
- শ্রেণিকৃত ঋণের পরিমাণ মাত্র ২.৯৪%
- সর্বোচ্চ সুশাসনের জন্য একাধিক আন্তর্জাতিক স্বীকৃতি ও পুরস্কার প্রাপ্তি
- ৩ মাস থেকে শুরু করে বিভিন্ন সুবিধাজনক মেয়াদে ডিপোজিট করার সুবিধা
- AAA ক্রেডিট রেটিং প্রাপ্ত

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Rice Mill Industry of Bangladesh

Consumption of rice is a crucial part of the country's identity- in both cultural and economic terms. It is not only the staple food but also an enormous source of employment. During the pandemic, our rice mill industry has faced few hitches but it was able to survive successfully with the help of government support and advanced technologies. Then again, strengthening the government policy is needed for this industry in order to ensure the fair value for the hard earned production of the farmers.

19-21
Expert Opinion

Md. Abdur Rashid

Managing Director & Chairman,
Rashid Group of Industries
Rashid Automatic Rice Mill.
Former President of Bangladesh
Auto, Major and Husking Rice
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FROM THE

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The Rice Mill Industry of Bangladesh: Surviving throughout pandemic and bringing technological change

Corona virus has affected almost every spheres of life in the world including different businesses and industries where agricultural sector is not an exception. Rice is the most vital element of this agricultural sector. The average per capita rice consumption in Bangladesh stood at around 179.9 kg per year from 2016 to 2019, more than three times the world average. According to the USDA, approximately 500 million tons of rice were produced globally during 2019-2020. Bangladesh ranked fourth, contributing about 7% to the world production. Despite being one of the leading producers, Bangladesh cannot find a place among the top five rice exporters since its output is used to meet the domestic demand. Our domestic demand has almost tripled since independence, causing us to somewhat dependent on imports to meet the demand.

Due to technological advancement and changing demands, the rice milling sector in Bangladesh has slowly shifted from the traditional "Dheki" or husking method of processing paddy to a more automated process. More than 12,000 husking mills had to shut down between 2012 and 2014 as they could not compete with the auto and semi-auto rice mills. Currently, 18700 public and private rice mills operate in Bangladesh, mostly in the North Bengal region. These mills broadly produce three categories of rice- Aus, Aman and Boro.

Since rice is a non-cyclical product, its demand is relatively inelastic. As such, the pandemic did not have much effect on the sector. Although the producers faced a temporary cash crisis during March and April due to the lockdown and limited banking hours, the situation improved from May and onwards. Handsome production and suitable government policies helped the producers to avoid any difficulty during the pandemic. Sales increased as people hoarded rice due to uncertainty, and different organizations procured rice for relief distribution. As a result, during the third quarter of 2020, the price of rice increased by BDT 5-7 per kg.

As technology advances, we need to use more modern technologies such as drones and field sensors in our farming process and adopt Climate Smart Agriculture (CSA) to boost our productivity. These need to be implemented almost immediately as we lose 1% of our cultivable land every year due to growing population demands. The government should also ensure proper financing and insurance facilities for the producers. Doing these will decrease our dependency on the RMG industry as our sole exporter and allow this industry to be a potential source of our export income.

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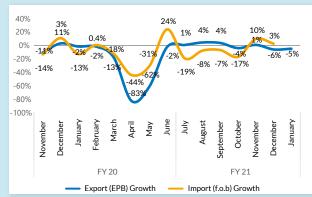


EXPORT-IMPORT

Growth in Export Imort Trade (Last 7 Years)

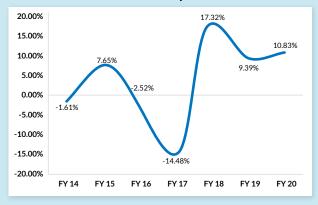


Export & Import Growth

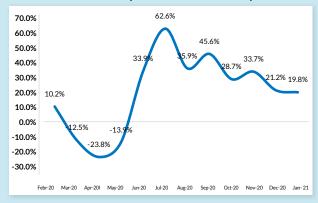


REMITTANCE

Remittance Growth of Last 7 years

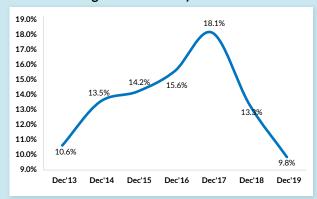


Remittance Growth (Previous 12 Months)

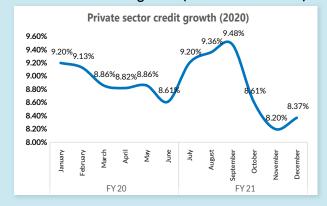


PRIVATE SECTOR CREDIT GROWTH

Private credit growth of last 7 years



Private sector credit growth (Previous 12 months)



MONTH IN BRIEF

- Net government borrowing against sales of national savings certificates reached 95.22 % of the budgetary target in the first five months of the current fiscal year 2020-2021 amid falling deposit rates in the banking system
- Global trade may The Bangladesh grow by 8.3% this **Securities** year. Although the and Exchange rise in oil prices will **Commission will** have some effect. create a Capital non-fuel commodity **Market Stabilization** prices will show a Fund worth more than downward trend. BDT 21,000 crore with

unclaimed dividends

of listed companies

through issuing a

notification.

● Bangladesh's trade deficit narrowed about 21.4 % year-on-year to USD 6.5 billion in the first six months of the fiscal year due to the falling trend of import and export owing to the ongoing pandemic.

which will have a

the economy of

Bangladesh.

positive impact on

- The country's merchandise export earnings during the first half (H1) of current fiscal year (FY), 2020-21, witnessed a marginal decline of 0.36 % to USD 19.23 billion over that of the corresponding period of last fiscal.
- The central bank has relaxed its foreign exchange (forex) regulations further, allowing banks to remit admissible payment abroad on behalf of the companies concerned up to 1.0 % of annual sales or USD 0.01 million whichever is higher.
- Bangladesh imported 8.97 million cubic metres of LNG in 2020, up 1.56 % from 2019.
- Year-on-year deposit growth in the country's Islamic banks at the September-end quarter of 2020 was much higher than the growth rate in the country's overall banking sector at the end of the same quarter, reflecting a growing public interest in Shariah-based banking system.
- Small traders, entrepreneurs and farmers who had no access to finance from banking channels will now be able to avail loans at 4% interest from a fresh BDT 1,500 crore stimulus package.
- During the July-December period of the current fiscal year, handicraft exporters earned USD 16.58 million, up by 48.70% from the corresponding period of the last fiscal year, according to the data available from the Export Promotion Bureau (EPB).

For the Record

MONEY-LAUNDERING WILL BE
TACKLED TO A GREAT EXTENT
WHEN THE INTEROPERABLE
DIGITAL TRANSACTION PLATFORM
(IDTP) COMMENCES ITS
OPERATION.

Mohammad Ali, Additional Managing Director, Pubali Bank Limited on Money Laundering.

Maintaining vigilance is important to keep inflation within the monetary target. The central bank should continue to monitor to this end.

Zahid Hussain, A Former Lead Economist, World Bank's Dhaka Office on Inflation. The credit management in stock broker houses is complex and challenging. Only time will tell how the banks will employ credit risk management tools and risk mitigation strategy for such entities.

Mushtaq Ahmed, Former Executive Director, Dhaka Stock Exchange on Credit Risk Management. The container charge for shipment from Chattogram to European Union ports went up to USD 4,500 to USD 4,600 per container in December, which was USD 2100 before the pandemic.

Fazlee Shamim Ehsan, Director, Bangladesh Knitwear Manufacturers and Exporters Association (BKMEA) on Rise in Freight Cost.

BUSINESSES ARE STILL
TAKING THE CAUTIOUS
PATH FOR EXPANSION
OF THEIR INDUSTRIAL
UNITS GIVEN THE
ONGOING BUSINESS
SLOWDOWN. SO, THE
INCREASED CREDIT
GROWTH IN A TRUE
SENSE DID NOT BRING
ANY OPTIMISM AT THIS
MOMENT

Emranul Huq, Managing Director, Dhaka Bank Ltd. on credit growth.

I THINK A 30% INCREASE IN MOBILE PAYMENTS IN A CALENDAR YEAR IS A VERY SIGNIFICANT AND MASSIVE MILESTONE FOR THE OVERALL DIGITALIZATION PROCESS, ESPECIALLY FOR THE FINANCIAL SECTOR.

Tanvir A Mishuk, Managing Director, Nagad on Increase in Mobile Transactions



| Country | Nominal GDP: October, 2020 (USD in billion) | Real GDP Growth: October 2020 (yearly % Change) | Inflation Point to point (%) | | point (%) | | Current Account Balance: (% of GDP) | Interest Rates (%), Ten years treasury bond | Currency Units (per USD) |
|-------------------|---|---|---------------------------------|-----------|-----------|-------|--|---|--------------------------------|
| Frontier Market | | | | | | | | | |
| Sri Lanka | 81.1 | -4.55 | 3.00 | Jan, 2021 | -3.63 | 8.00 | 193.50 | | |
| Vietnam | 340.6 | 1.60 | -0.97 | Jan, 2021 | 1.61 | 2.20 | 23,025.00 | | |
| Kenya | 101.0 | 1.05 | 5.69 | Jan, 2021 | -4.90 | 12.08 | 109.80 | | |
| Nigeria | 443.0 | -4.28 | 15.75 | Dec,2020 | -3.65 | 8.88 | 381.25 | | |
| Bangladesh | 330.1 | 5.24 | 5.02 | Jan, 2021 | -0.02 | 5.87 | 84.80 | | |
| Emerging Markets | | | | | | | | | |
| Brazil | 1,363.8 | -5.80 | 4.52 | Dec,2020 | 0.27 | 7.29 | 5.35 | | |
| Saudi Arabia | 680.9 | -5.44 | 5.30 | Dec,2020 | -2.51 | n/a | 3.75 | | |
| India | 2,935.6 | -10.29 | 4.59 | Dec,2020 | 0.33 | 6.07 | 72.96 | | |
| Indonesia | 1,088.8 | -1.50 | 1.55 | Jan, 2021 | -1.30 | 6.21 | 14,020.00 | | |
| Malaysia | 336.3 | -6.00 | -1.40 | Dec,2020 | 0.94 | 2.76 | 4.06 | | |
| Philippines | 367.4 | -8.26 | 3.50 | Dec,2020 | 1.61 | 3.11 | 48.10 | | |
| Turkey | 649.4 | -4.99 | 14.97 | Jan, 2021 | -3.66 | 13.08 | 7.12 | | |
| Thailand | 509.2 | -7.15 | -0.27 | Dec,2020 | 4.17 | 1.21 | 30.06 | | |
| China | 14,860.8 | 1.85 | 0.20 | Dec,2020 | 1.30 | 3.25 | 6.46 | | |
| Russia | 1,464.1 | -4.12 | 4.90 | Dec,2020 | 1.17 | 6.26 | 75.43 | | |
| Developed Markets | | | | | | | | | |
| France | 2,551.5 | -9.76 | 0.60 | Jan, 2021 | -1.92 | -0.24 | 0.83 | | |
| Germany | 3,780.6 | -5.98 | 1.00 | Jan, 2021 | 5.75 | -0.47 | 0.83 | | |
| Italy | 1,848.2 | -10.65 | 0.20 | Jan, 2021 | 3.23 | 0.58 | 0.83 | | |
| Spain | 1,247.5 | -12.83 | 0.60 | Jan, 2021 | 0.54 | 0.13 | 0.83 | | |
| Hong Kong | 341.3 | -7.47 | -0.70 | Dec,2020 | 4.35 | 1.00 | 7.75 | | |
| Singapore | 337.5 | -6.00 | 0.00 | Dec,2020 | 14.98 | 1.08 | 1.34 | | |
| United States | 20,807.3 | -4.27 | 1.40 | Dec,2020 | -2.12 | 1.14 | 1.00 | | |
| Denmark | 339.6 | -4.50 | 0.50 | Dec,2020 | 6.37 | n/a | 6.20 | | |
| Netherlands | 886.3 | -5.40 | 1.00 | Dec,2020 | 7.56 | -0.41 | 0.83 | | |
| Australia | 1,334.7 | -4.16 | 0.90 | Dec,2020 | 1.85 | 1.20 | 1.31 | | |
| Switzerland | 707.9 | -5.30 | -0.80 | Dec,2020 | 8.48 | -0.42 | 0.90 | | |
| Britain | 2,638.3 | -9.76 | 0.60 | Dec,2020 | -2.05 | 0.37 | 0.74 | | |

Bangladesh data: GDP size and real GDP are sourced from Bangladesh Bureau of Statistics as per 2019-20 data. Calculation Method of CA Balance (%of GDP): CA balance of FY19-20 / GDP of FY19-20.

Interest rate (%) 10 years TB as per January, 2021, Inflation as per January, 2021 and Currency Unit (per USD) as per 3rd February, 2021 are sourced from Bangladesh Bank

Nominal GDP: Data of all countries apart from Bangladesh is sourced from IMF estimates of 2020 data (October, 2020 Outlook)

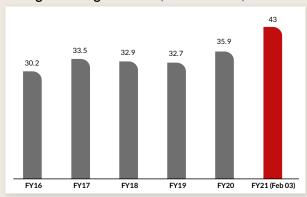
Real GDP Growth and Current Account Balance: Data of all countries apart from Bangladesh is sourced from IMF estimates of October, 2020 data (World Economic Outlook, October 2020)

Inflation: Data of all countries apart from Bangladesh is sourced from tradingeconomics.com as per 4th February, 2021

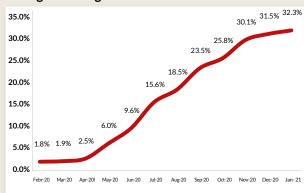
Interest rates 10 years TB and Currency Unit: Data of all countries apart from Bangladesh is sourced from Investing.com as per 4th Frebruary 2021



Foreign Exchange Reserve (In Billion USD)

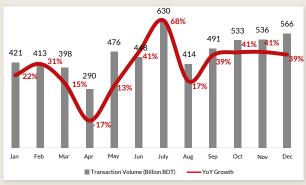


Foreign Exchange Reserve YoY Growth 2020



MFS Total Transaction Volume 2020

(BDT Billion and YoY Growth)



MFS No. of Total Transaction YoY Growth 2020



Total Amount of Internet Banking Transaction (BDT Billion and YoY Growth)

Total Amount of Card Transaction (BDT Billion and YoY Growth)



Source: Bangladesh Bank

BANGLADESH: THE BEST KEPT SECRET IN ASIA

RESEARCH IN FOCUS

Bangladesh has an impressive track record for growth and development over the past decade. Bangladesh is slowly making its presence felt across the Asian belt. One of the major reasons behind this development is Foreign Direct Investment and Startups. The investments across the country are increasing every year which has almost quadrupled. International corporate investors and venture capitals are investing in industries like- fin tech, logistics and mobility over the last five years. More than 102 million people are now having access to the internet among the population of 164 million. Our young population is now quickly adapting to new technology, opening up to new ideas and exploring new avenues of improvement. More than thousand active startups are now generating over 1.5 million employments. These millions of people are also the active consumers of products and services made by startups, as part of their everyday life.

ECONOMIC INDICATORS OF THE PAST DECADE



Source: LightCastle Partners

These are strong signs which indicate that Bangladesh is perfectly placed to become an important crown jewel in the Asian Sub-continent, propelled by more and more young people who are willing to take risks and push for greater innovation.

PROMISING SECTORS FOR NEW DECADE

As a developing country business sector in Bangladesh is growing very swiftly for which this sector has huge potential in coming years. From spinning to weaving, from knitwear to leisurewear and high street fashions, the textiles and clothing industry is Bangladesh's biggest export earner. Our factories design and produce for the world's leading brands and retailers. This rapidly growing sector of the Bangladeshi economy offers a unique competitive edge that supports profitable expansion into new strategic markets. The country has also enjoyed a promising 8.1% economic growth rate prior to the pandemic, strongly driven by RMG exports, a surging flow of remittances from abroad. A record amount of foreign investments (FDI) amounting to USD 3.88 billion in 2019 came into the country, however, due to the yearlong pandemic, coupled with infrastructural challenges and gap in policy implementation, it has since struggled to match the same figures, which explains the low FDI to GDP ratio in 2019. Moreover, the ease of doing business in Bangladesh needs drastic improvements. the country is currently ranked at a low 168th (jumping from 176th in the previous year) in the World Bank Groups' Doing Business 2020 study. However, steps are already underway



(i) ABOUT THE RESEARCH

Bangladesh: The Best Kept Secret in Asia is a LightCastle Partners report published on November, 2020.

by the government, with the construction of new economic and export processing zones, with BIDA's One-Stop Service, being one of the many bright examples. The country has also accelerated the adoption of digital services with Digital Financial Services (DFS), Logistics, and Grocery on-demand, Ed Tech, Health Tech seeing sharp growth.

Promising Sectors Derived From Business Confidence Index Study

| Fiscal Year 2016-17 | | Fiscal Year 2017-18 | | Fiscal Year 2019-20 |
|-------------------------|------------|-------------------------|----------|----------------------------|
| Power & Energy | 1 | ICT & ITES | 1 | Pharmaceuticals |
| ICT & ITES | 1 | Agro-Processing | 0_0 | Agro-Processing |
| RMG | 1 | Pharmaceuticals | 4 | ICT & ITES |
| Pharmaceuticals | lacksquare | Power & Energy | 1 | Logistics |
| Leather Goods(Footwear) | 00 | Leather Goods(Footwear) | 1 | Digital Financial Services |
| Stable Increased | 4 | Decreased | | |

Bangladesh is both an inspiration and a challenge for policymakers and practitioners of development. While the country recorded strong performance in income growth and human development, Bangladesh faces daunting challenges with an increased level of vulnerability with about 39 million people still living below the national poverty line. Bangladesh is considered a lower middle-income country by the World Bank and moved into middleincome status in previous years. Bangladesh is one of the fastest-growing countries in the world and as such, we can identify some of the benefits and costs from such a rapid pace of expansion. The country has made significant progress in reducing extreme poverty and its per capita income might soon overtake that of India. However, a severe infrastructure gap means that it cannot meet many of the sustainable development goals. The government's Vision 2041 seeks to eliminate extreme poverty and secure upper middle-income country status by 2031 and achieve high income country status by 2041.

DRIVERS FOR SECTORAL GROWTH

Bangladesh has higher labor supply and cheaper power tariff than peer countries:

Low-skilled labor available at 20-70% lower wages





Industry growth factors emanating from high labor supply

Large Labor Pool Price Attractiveness High quality for low & lower-mid apparel Lower wages compared to competitors Employment in apparel sector: 5 Million Wages in China have risen High quality for low & lower-mid apparel Bangladeshi factories are well known for supplying good quality and large order sizes

Source: LightCastle Partners

DOING BUSINESS INDEX

Economies are ranked on their ease of doing business from 1 to 190. A high ease of doing business ranking means the regulatory environment is more conducive to the starting and operation of a local firm. The rankings are determined by sorting the aggregate scores on 10 topics, each consisting of several indicators, giving equal weight to each topic. The World Bank Group's Doing Business 2020 study ranked Bangladesh 168th in the global ease of doing business ranking this year from 176th in the previous year. But government has taken an initiative to become a double digit by 2025.

Ranking in 2020



ACTIVE STEPS TO IMPROVE EASE OF DOING BUSINESS RANKINGS

The government of Bangladesh has undertaken a number of initiatives to improve the ranking-

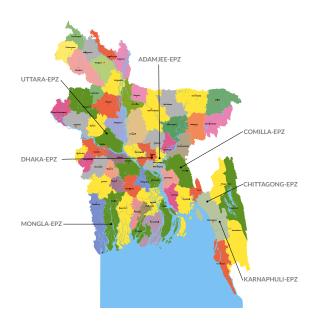
 Setting up a new business became less expensive with the reduction of registration and name clearance fees and removal of certifying fee for digital certificates.

- Obtaining an electrical connection in Dhaka was made more efficient as the city has invested in digitization and human capital. At the same time, the country reduced the amount of security deposit required for a new connection.
- Access to credit information was improved thanks to expanded coverage by the credit information bureau.
- Bangladesh Investment Authority (BIDA) has introduced a One Stop Service Center to assist foreign investors.
- Actions include Bangladesh Investment Development Authority (BIDA)'s One-Stop Service, Infrastructure investments, the building of economic and Export Processing Zones etc.

Therefore it is expected that Bangladesh will significantly improve its ease of doing business ranking over the coming years.

BIDA's One Stop Service-Available Online Services

- BIDA Registration
- Chattogram Development Authority(CDA)
- Company Registration
- Office Permission
- Outward Remittance Approval
- Tax Identification Number
- → Visa Recommendation
 - Work Permit



INFRASTRUCTURE INVESTMENT

Matarbari Deep Sea Port



Padma Bridge



Dhaka Metro Rail



INCREASE FOCUS TOWARDS CREATING GLOBAL BRAND PERCEPTION





Systemically promote **Brand Bangladesh** by emulating successful competitors

Capitalize on **Government incentives and tax subsidy** for value addition in country

Target Investors and Stakeholders including global brands to install trust among international investors

Strategic partnerships across platforms can play vital role in gaining international coverage

Create advocates from globally acclaimed **Bangladeshis/ Influential NRBs** to reach out to prospective investors and create positive association

Promote BIDA's "one stop solution" service



COVER STORY

Rice is the most significant cereal and staple food in Bangladesh for which we have been acknowledged as one of the world's top rice consuming countries. Rice provides more than 70% of the total calorie intake in Bangladesh. According to the report published by the Food and Agriculture Organization (FAO) of the United Nations in 2020, the average per capita rice consumption in Bangladesh was second highest in Asia with an average of 179.9 kg per year while the world average was 53.5 kg per year; during the period from 2016 to 2019. Despite various challenges posed by the Covid-19 pandemic and floods, Bangladesh's rice production reached almost 37.14 million metric tons (MT) in 2019-20 as stated by the Bangladesh Bureau of Statistics.

International Rice Market - At a Glance

Rice is the basic food of more than half of the world's population. According to the USDA (United States Department of Agriculture), approximately 500 million tons of milled rice has been produced globally during the year 2019-2020. China is the largest producer, accounting for 30% of the production, followed by India (24%), Indonesia (7%), Bangladesh (7%), Vietnam (5%) and Thailand (4%).

According to MarketWatch, some of the significant global exporting countries of rice include India, Thailand, Vietnam, Pakistan, and Brazil. Unlike exports, the import scenario of rice is quite fragmented, with the top five importers accounting for only 30% of the global imports. The global rice consumption is dominated by countries in the Asia-Pacific region, like China, India, Indonesia, Bangladesh, and Vietnam.

Rice Import-Export



IMPORT

Philippines was the largest importer of rice, importing 2.5 million metric tons in the year of 2018-19 and China was the

second with about 2.3 million metric tons of rice import worldwide in that year. Although China is in the leading position for rice producing country in the world, due to high consumption of rice in the country they still have to import rice from international market.

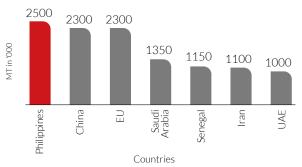


EXPORT

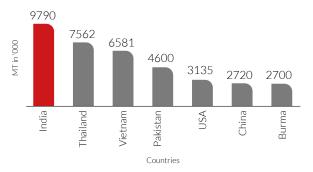
India had the highest export volume of rice worldwide, with 9.8 million metric tons as of 2018-2019. Thailand was the second largest rice exporter, with about

7.56 million metric tons of rice worldwide in that year. India is also the leading exporter of basmati rice in the global market. The major countries importing rice from India are Saudi Arabia, UAE and Iraq with 9.3%, 9.2% and 7% of the total rice export shares from India, respectively.

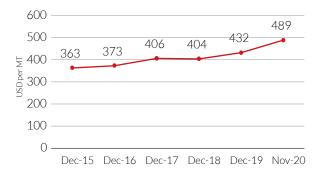
Major Rice Importing Countries



Major Rice Exporting Countries



Price Variation of Milled Rice



Rice Mill Industry of Bangladesh

The rice milling sector in Bangladesh is undergoing a revolution. In recent years, significant numbers of people are not using Dheki or traditional method for the paddy processing. This place has been occupied by the machines through automated rice mills. As, per capita income of people in Bangladesh has increased in recent years, people now prefer processed rice, which is less costly, looks glossy, takes less time

to cook, free from stones & dead rice, and has longer shelf life.

a Types of Rice and its Nature of Dependency

Rice is the key crop and staple food in Bangladesh. Almost 70-80% of our cultivable land (10.5 million hectares) is used for rice production. Production of rice depends highly on nature. Broadly, there are three categories of rice - Aus, Aman and Boro. Cropping calendar of Bangladesh is given below to understand the planting and harvesting season of rice.

Cropping Calendar in Bangladesh

| | | Ja | ın | Fe | b | М | ar | Α | pr | М | ay | Jι | ın | Jı | ıl | Αι | ıg | Se | ер | 0 | ct | N | οv | De | ec |
|---|-----------|----|----|----|---|---|----|---|----|---|----|----|----|----|----|----|----|----|----|---|----|---|----|----|----|
| 1 | Aus Rice | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Aman Rice | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Boro Rice | | | | | | | | | | | | | | | | | | | | | | | | |

■ Planting ■ Harvesting

Aus rice is planted through March to first half of May and harvested on July and first half of August. Aman rice is planted from last half of May to first half of August and harvested on November to first half of January. Boro rice is planted from last half of December to first half of February (next year) and harvested from last half of April to first half of May.

b Different Category of Rice Mills

Generally rice mills are categorized by their production process. There are three types of rice mills in Bangladesh:



Automated Rice Mill



Semi-Auto Rice Mill



Traditional Husking Mill

Normally millers source paddy from the traders/ wholesaler (locally known as Aratdar/Faria) and store it in warehouse. The paddy has been processed through mainly following stages











These processes will be discussed in brief in the following section.

i) Automated Rice Mill

In an automated rice mill, all the stages of rice milling processes have been functioned by automated machines. The main division of automated rice mill is parboiling unit. The main function of the parboiling is to boil the paddy and the drying section dries the paddy to further process. Dried paddy has been processed through following stages in Automated Rice Mills:

| Stages | Functions | Name of Machines used |
|----------------------|--|------------------------------------|
| Pre-cleaning | Removing all impurities and unfilled grains from the paddy | Drum sieve Paddy Cleaner |
| Husking | Removing the husk from the paddy | |
| Husk aspiration | Separating the husk from the brown rice/unhusked paddy | Paddy Husker |
| Paddy separation | Separating the unhusked paddy from the brown rice | Paddy separator |
| De-stoning | Separating small stones from the brown rice | De-stoner |
| Whitening | Removing all or part of the bran layer and germ from the brown rice | Whitener |
| Grading | Separating small and large broken pieces from the unbroken rice | Rice Grader |
| Polishing | Improving the appearance of milled rice by removing remaining ran particles and by polishing the exterior of the milled kernel | Rice Polisher |
| Sorting | Removing foreign materials such as colored, broken, immature and infected grains from milled rice | Color Sorter |
| Weighing and bagging | Preparing milled rice for transport to the customer | Weighing and bagging Machine |

Source: IRRI Rice Knowledge Bank

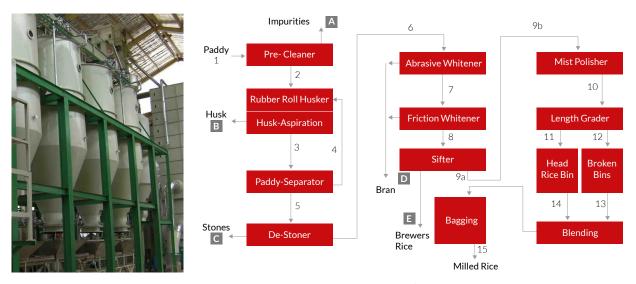


Figure: Flowchart of a modern rice mill (Source: IRRI Rice Knowledge Bank)

Machinery Setup of Auto Rice Mill with Costing:

In auto rice mill different types of machinery are required for different stages of operations. The price of the machines also depends on the different stages of production and it can vary from brand to brand.

| | | BDT in | million | |
|---------------|-------------------|------------------|-----------------|-----------------|
| Particular | Japanese Brand | Chinese Brand | Indian Brand | Korean Brand |
| Boiler | 4.8-5.0 | 4.8-5.0 | - | 5.0-8.0 |
| Dryer | 13.6 | 4.2 | 12.0 | 7.2 |
| Parboiling | 15.0-19.0 | 7.8-9.0 | 12.0 | 3.2 |
| Milling | 35.0-40.0 | 15.0-20.0 | - | 10.0-20.0 |
| Color Sorter | 11.0 | 5.0-6.0 | 4.5-6.0 | 7.0 |
| Power station | 2.2 | 2.2 | 2.2 | 3.0-4.0 |

Source: Bangladesh Rice Research Institute and ECRL Primary Survey

The average price of the standard boiler machine is about BDT 4.8 million to 8.0 million, which has the capacity of boiling (assuming 16 hours) 50 ton to 100-ton paddy per day. But the cost of the Japanese and Chinese brand is lower than the Korean brand. However, almost 90% of parboiling rice milling machineries in Bangladesh are generally imported from India. In case of quality, machineries from Japan and Germany are better but expensive compared to Indian machineries. The average cost of Indian machine for parboiling section is about BDT 12 million for 100 tons per day capacity. Another Indian machine for drying section has the average cost of 100 tons per day capacity, costing about BDT 12 million. But the cost of Chinese brand is only BDT 4.2 million. However, 90% of Milling and Bagging machineries are imported from China.

The price of the Chinese machine of milling is about BDT 15 million to 20 million for 100 tons per day capacity. Color sorter machines are very expensive. The Indian color sorter machine costs around BDT 4.5 million to 6 million.

ii) Semi-Auto Rice Mill

Semi-auto rice mill doesn't process the paddy in automated way. Basically, the paddy has been boiled by the boiler keeping paddy in an open house (made by brick and cement) and then the paddy is dried in an open space locally known as Chatal. The dried paddy is processed through milling to get the rice. The output from semi-auto rice mill is not as sophisticated in nature as the millers of semi-auto rice mill needs to sort the rice by color sorter machine.



iii) Husking Mill

Husking mill is the traditional approach of the rice milling in which rice has been boiled and dried manually like semi-auto rice milling process. It is basically a single pass mill. Steel is used by creating high pressure to remove husk and bran from the paddy. It results in many broken rice and kernels. Actually, it was the introductory phase of rice milling in Bangladesh. During the period of 2012 to 2014, more than 12000 husking mills were shut down as the husking mill doesn't compete with auto-rice mills and semi-auto rice mills regarding cost effectiveness and production capacity.



By Product Generation

Rice mills can produce three varieties of by-products which include 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, automatic rice mills could generate 67.67%, 5.60%, 20.67% and 1.0% of head rice, rice bran, rice husk and broken rice respectively, while husking mill produces less amount compared to automatic.

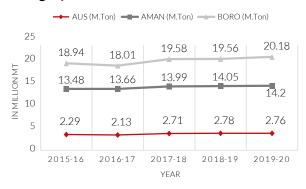
| Paddy Break Up | Kg | % |
|----------------|-------|---------|
| Paddy | 75.00 | 100.00% |
| Rice | 50.75 | 67.67% |
| Bran | 4.20 | 5.60% |
| Husk | 15.50 | 20.67% |
| Broken Rice | 0.75 | 1.00% |
| Total Output | 71.20 | 94.93% |
| Process Loss | 3.80 | 5.07% |

Milling Outturn and Production of By-Products for 75 KG Paddy

d Category and Division wise rice production in Bangladesh

As said earlier, there are three main varieties of rice produced in our country: Aus, Aman, and Boro. Among them Boro and Aman varieties contribute around 93% of our total rice production.

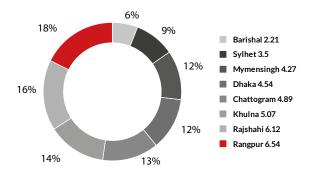
Category Wise Rice Production



Source: Bangladesh Bureau of Statistics

Bangladesh is divided into eight divisions among them the northwest part of our country: Rajshahi and Rangpur Division contribute almost 34% of our total rice production. Less industrialization, abundance of cultivable land, favorable weather etc. results in superior rice production in these areas.

Division Wise Rice Production in 2019-20 (in million MT)



Source: Bangladesh Bureau of Statistics

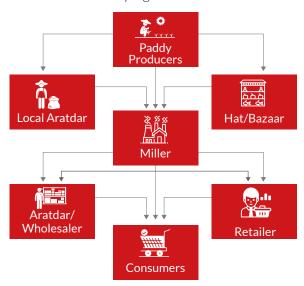
Domestic Demand and Trading Scenario

Though total rice production in Bangladesh has almost tripled since the country's post-independence period, from the following table, we can see that the domestic demand (=Production + Import - Export) of our country is not being fulfilled by its production. So, we have to depend on the import of rice every year. At the same time, we should keep in mind that the population of our country is increasing by two million every year. On the other hand, total cultivable land is decreasing at a rate of more than 1% per year to meet the increased population demand (the construction of industries, factories, houses, roads, highways etc.). Besides that, the production of rice is hampered every year due to climate change and various natural disasters.

| | | in milli | ion MT | | Share of | Share of import |
|---------|------------|----------|--------|--------------------|-----------------------------------|------------------------|
| Year | Production | Import | Export | Domestic Demand | production in total demand (%) | in total demand (%) |
| 2015-16 | 34.71 | 0.22 | 0.004 | 34.92 | 99.39% | 0.62% |
| 2016-17 | 33.80 | 0.08 | 0.004 | 33.87 | 99.79% | 0.22% |
| 2017-18 | 36.28 | 3.20 | 0.004 | 39.47 | 91.90% | 8.11% |
| 2018-19 | 36.39 | 0.40 | 0.004 | 36.79 | 98.92% | 1.09% |
| 2019-20 | 37.14 | 0.03 | 0.004 | 37.17 | 99.93% | 0.08% |

Source: IndexMundi and Bangladesh Bureau of Statistics

Generally, four groups are involved in the channel for milled rice: producers, aratdar/bazaar, mills and wholesalers/ retailers. Farmers grow crops, harvest them and sell them to the village market or various intermediaries (faria, aratdar, or agent). After harvesting crops from the field, it needs to be processed for final consumption. At this stage, rice millers collect, process, and grade crops. City Auto Rice Mills Limited, Raipur Auto Rice Mills, Majumder Group of Industries, Kazi Auto Rice Mill, Rashid Automatic Rice Mills Limited, A.R Specialized Auto Rice Mill are some of the top rice mills in Bangladesh. Rice millers then supply the rice to the wholesalers or retailers and finally it goes to the end consumers.



Rice production and supply chain process

Impact of COVID 19 on Rice Market- A Blessing rather than Curse

Corona virus has affected almost every spheres of life in the world including different businesses and

industries. Agricultural sector in our country is not an exception. During the period of March-April'20 rice millers faced cash crisis for lockdown and limited banking hours. Since the mainstream rice mill owners had their bank accounts with private banks, they were facing a cash crunch for which they couldn't purchase paddy. So, for a short period of time, there was an uncertainty about supplying rice to the government storehouses in due time. But from May'20 and onwards, the situation has been improved. As rice is the basic food item of our country, regardless of any situation people will consume it. Despite the pandemic, due to handsome production and government policy, rice millers did not face much difficulty in this pandemic rather sales of rice increased during the time as people used to purchase more than regular out of fear and also different organizations and NGOs procured rice to distribute relief. During the 3rd quarter of 2020, price of rice increased by millers to BDT 5-7 per kg due to unavailability of paddy for flood and cyclone as stated by millers. So, the pandemic seems to be a blessing for rice millers. Recently, AIREA (All India Rice Exporters Association) stated that in the fiscal year of 2020-21, export of non-aromatic rice will cross over 10 million MT.

Present Market Condition and Industry Overview

Our rice market is mainly operated by both government and private sector players. As per the information provided by Bangladesh Auto Major and Husking Mill Owners Association, there are 18,700 rice mills in Bangladesh from which 500 are automated rice mills, 700 are semi-automated rice mill and 17,500 are husking mills. Most of the mills are located at North Bengal region. The success factor of the industry depends on the paddy production. Another aspect of the industry is that; even though the farmers are the main catalyst in

this industry, they are not happy. Most of the time middleman (faria/aratdar) gets the benefit.

The price of rice fluctuates frequently in the Bangladesh market because of several reasons including natural disasters, strong syndicates, creating some artificial crisis, high-profit tendency, increased price of seeds and fertilizers etc. Generally, in November, December and January these three months farmers harvest crops resulting in more supply in the market and the market offers relatively low price of rice. On the other hand, in May, June, and July these three months customers have to pay a very high price due to floods and other natural disasters.

The food grain reserve has dwindled to seven lakh tonnes in December'20 from 13 lakh tonnes in December'19. Of this, around five lakh tonnes are rice, according to the food ministry. Bangladesh took some policy measures to control the price of rice from 30 September 2020. Wholesale prices of fine rice (Miniket) is fixed at BDT 51.5 per kg and BDT 45 per kg in the case of medium-quality rice, in an effort to avert further increases in prices of essentials. Also, as a procurement policy, the government purchased parboiled rice at BDT 36 per kg, white rice at BDT 35 per kg and paddy BDT 26 per kg.

| Rice Variety | Price Per KG Dec 27,2020 | Price Per KG Dec 27,2019 |
|---------------------------------------|-----------------------------|-----------------------------|
| Fine Rice (Nazirshial, Miniket) | 60 to 65 | 45 to 60 |
| Medium Quality Rice (Paijam, Lata) | 53 to 60 | 40 to 50 |
| Coarse Rice (Swarna, China Irri) | 46 to 50 | 30 to 35 |

Source: The Daily Star

Recently the government is going to allow the private sector to import six lakh tonnes of rice with 15% duty (which was 62.5% before) to stabilize the rice market. The authorities will fix how much rice an individual or a firm will be allowed to import so that farmers do not incur losses. As the rice price is high, the government is allowing the private sector to import rice under special consideration. The government will also import rice when necessary.

Future Prospects and Possibilities of Rice Market in Bangladesh

In 2019-20, agriculture sector has contributed 13.35% in total GDP of our economy. And rice is the most vital element of this agriculture sector. Bangladesh is currently the world's fourth-largest rice producer. As it is the basic food grain of

Bangladesh, this sector has huge prospects and possibilities in near future. Despite having huge production we still have to import rice from outside. If we want to increase our production within our limited resources, we must use modern technology in our farming process as use of drones, field sensors, satellites for water balance calculation, spraying, and other operations. This use of technologies helps to reduce production costs, save resources, and maximize productivity. In recent times we are facing various climatic changes, which harm our production. We can adopt Climate Smart Agriculture (CSA) practice to boost up the production. A pilot project of CSA was conducted by IRRI and ADB in Chattogram, resulting in 20% higher production than the regular. If we consider the cost-benefit analysis of this system then it can expect an average increase in income of BDT 30,642 to 36,321 per hectare (an average increase of 52% - 61%).

Financing facilities should be ensured along with crop insurance policy to facilitate the farmers, millers, exporters, and related parties. According to Bangladesh Bank, in 2018-19 schedule banks disbursed BDT 23,616.25 crore as farm loan for 38,83,424 borrowers. The Bangladesh government has introduced a stimulus package of BDT 5,000 crore for the farmers with a 4% interest rate, which is indeed very satisfactory news for agriculture. We need to increase the amount of credit in this sector and arrange loans to farmers on easy terms. And the government should strengthen the policy for import-export so that fair price can be ensured for farmers and middlemen tyranny can be reduced.

There are different types of food related organizations which produces different food items as biscuits, cakes and cookies for which rice is used as the main ingredient. Our government can provide incentives, stimulus fund and tax holiday to motivate the entrepreneurs and also supply these rice based healthy foods to different schools and projects like 'Work for Food', 'Pushti' etc.

Our country is greatly dependent on RMG export. Being dependent in a specific sector solitarily may create a threat in future especially when we won't be able to get duty free access to many countries which is available now. In that case, exporting rice could be a potential source of export income. We need to develop our technology to boost up the production. Our government also needs to form a body to plan, coordinate, promote, encourage, and assist export efforts.

EXPERT OPINION



Md. Abdur Rashid

Managing Director & Chairman, Rashid Group of Industries, Rashid Automatic Rice Mill

Former President of Bangladesh Auto, Major and Husking Rice Mills Association

Interviewed By Mitali Saha, Senior Officer , Corporate Division

MBR: The agriculture ministry has declared huge incentives to small and marginal farmers for cultivation in recent years. In what way do you think it can benefit and motivate the farmers?

Md. Abdur Rashid: About 90% farmers of Bangladesh are small and marginal with having average land of 2.5 acres and below. They are very often constrained by finance and thus cannot afford high costs for management. Moreover, they have very limited access to institutional credit because of collateral requirements. As, farmers

are responsible for all crops and livestock that are needed for us to survive, we need to take care of them. In recent years, we saw that Ministry



of Agriculture has introduced several incentive packages and micro loans with easy terms and low interest for farmers. This step is certainly beneficial for the producers as they will be able to get the required financing and it will also motivate them for cultivation. Also government has raised the target for procurement and distribution of rice and paddy by 2 lakh MT in FY 2020-21 which will help to ensure that farmers get fair prices for their production. In addition, allocation of BDT

3,198 crore to promote farming mechanization and reducing custom duty on importing parts of agriculture machinery will reduce the price of farming equipment and generate employment.

MBR: In pandemic time farmers are worried about the timely supply of rice to the government storehouse because of insufficient cash and paddy. How farmers and owners are mitigating this obstacle?

Md. Abdur Rashid: Due to the pandemic, the government imposed a nationwide lockdown

and instructed everyone to stay at home to curtail the spread of the virus. Many farmers were facing a crisis over the lack of agricultural

workers to harvest rice due to COVID-19. Also, farmers and rice millers faced cash crisis during the pandemic for lockdown and limited banking hours for which they couldn't purchase paddy. Though there was plenty of production of paddy, farmers were concerned about whether they would be able to process the paddy as there were barriers of movements, labor shortages and insufficient money supply. But due to the government intervention and collective support, farmers

and rice mill owners were able to overcome the barriers. The Agriculture Ministry decided to issue special passes to workers for harvesting. Also, transports loaded with fertilizers, pesticides, diesel and other agricultural products remained out of the purview of the transport ban. Farmers were provided mobile phone numbers of the local DAE (The Department of Agricultural Extension) officials so that they could be in touch with them in this difficult time. Government unveiled a BDT 50 billion (USD 590 million) stimulus package with a 4% discounted interest rate on loans for the farmers who are being affected severely by the ongoing lockdown and set the paddy price which helped to alleviate the crisis.

MBR: What is the thought of farmers & owners regarding the government quoted price "BDT 36 per kg" for selling the rice? Will all type of rice mill owners be able to survive in the industry with this price?

Md. Abdur Rashid: Government has set the price of paddy and rice for maintaining a stock to ensure food security and providing price support to the crop growers. Definitely, this is a good news for producers and farmers who produce rice. But the actual scenario is a bit different from previous experience of last Boro season. We could see that, almost 98.66% farmers, who had to sell their paddy to middlemen, traders, millers and wholesalers. They got an average price of BDT 20-22 for each kg of the grain, which was BDT 6-4 less than the floor price of BDT 26 for paddy set by the government. Only 1.34% of the farmers got the government-set price against their production, as they were the only lucky ones who could sell paddy to the government's food department. And as the rice millers have to procure paddy in bulk and further process it to make rice, the costing increases. Millers cannot supply BDT 36 per kg of rice as the production cost of rice becomes BDT 42-43 per kg, which is why most millers have to procure the rice at a lower price from the farmers.

MBR: How do you handle the situation when government imports rice to meet up with the demand? As an industry expert, do you think the impact of importing rice is different for large and comparatively smaller sized rice mill owners? If yes, how is it different and how to deal with such situation in both cases?

Md. Abdur Rashid: Basically rice import is very insignificant compared to our total production but when there is any natural disaster which causes the harm to our production. Due to controlling price, government decides to import rice from abroad to maintain stable price. As a miller, I have to be very calculative in that case. I have to have update regarding how much rice would be imported and what extent the calamities harm the crops. Sometimes, it is very challenging to predict market but my long experience in this industry helps me run business along with the demand, supply and government policy. Impact of importing rice is different to a large miller from a small sized miller though some factors affect equally to both parties like price of paddy, price of rice, availability of raw materials but the difference lies in managing the situation. Large millers can easily contribute in importing rice due to having very good access to finance with other advantages but it is rarely possible for small sized millers to extend their business production with importing rice from abroad. That is why authority should be very careful determining the amount of rice to be imported and be very vigilant to ensure the estimated amount of import.

MBR: As the population is increasing faster, we are losing lands for cultivation every year. Is that affecting in a huge way in the production compared to the actual demand?

Md. Abdur Rashid: Bangladesh is a small country with huge population and the rate of population growth is increasing very fast. Due to the high pressure of the increased population, the country is losing nearly 82,000 hectares of land annually on an average, of which 55% is used for housing followed by industrial and other commercial

sectors. Besides, structural transformations and the increasing rate of industrializations are also high. Conversely, food production is not increasing as the same proportion as the population growth according to the food demand. Rather agricultural land is declining every year. If the present trend of population growth of two million people per year continues, Bangladesh will undoubtedly face far severe food shortage in the next few years reaching a critical level by 2050.

MBR: Isn't lack of modern technology in husking and traditional rice mills resulting in poor quality rice? Are they meeting up with the International standard? Also, as an industry expert what do you think of the future prospect of such kind of semi auto, husking, traditional rice mills?

Md. Abdur Rashid: Definitely, quality of rice produced by traditional and husking rice mills is not as good as auto rice mills. Rice husking mill is far behind in terms of capacity, technology, quality than auto rice mill. Moreover, the husking and semi auto rice mills do not meet the international standard as the traditional boilers used in the mill are quite unsafe for the operators, onlookers and they are profusely polluting the environment. Very often a number of these inefficient and unsafe boilers accidentally explode because of uncontrolled internal steam pressure. Husking

mills are currently on the verge of extinction while some semi-autos are on the way. Nowadays everyone is leaning towards automatic rice mills, which will be more sophisticated with new technology than the current ones in near future.

MBR: Do you think lack of skills related to operation and technology resulting in low productivity compared to other countries?

Md. Abdur Rashid: Bangladesh is an agricultural country whose economy is largely dependent on agriculture. Among the various crops produced in the country rice is the major one. Majority of the rural population are involved in production, processing and marketing of rice. But the rice producing and processing technology followed by the farmers and mill owners are either completely traditional or a combination of modern and traditional method. Though Bangladesh is the fourth largest producer of rice in the world, still we have some lacking in adapting new technologies and skills. A significant portion of our farmers still use traditional method of farming for which productivity of the land reduces. We can see that large rice producing countries like China, Vietnam and India are producing huge quantity of rice through using the latest technology. We should also adapt the modernization and develop our cultivation process for increasing productivity.



ANTT ROBOTICS LIMITED





Nazib Ahmad
Founder & Chairman

Thajid Ibna Rouf Uday

Founder & Director

Interviewed By Bonnishikha Chowdhury, MBR Team

MBR: How did the idea of "ANTT Robotics" come into being? How had the idea been put into a business model?

ANTT Robotics: ANTT Robotics has created an ecosystem for learning basic programming for the students and teachers, using the element of personalization and gamification. This form of learning is the unique selling point of our product.

It began in 2015 during the founders' graduation duration when most technologies were expensive and unavailable for school going students. With the lack of STEM (Science,

Technology, Engineering and Mathematics) based learning tools, coupled with a lack of technology, innovation-based local products are mainly provoking to execute the

ANTT ROBOTICS LTD

idea. After validation and research, we have started our venture back in 2018 and registered under RJSC (Registrar of Joint Stock Companies and Firms) as a robotics company in early 2019.

The idea is mainly addressed to solve that global shortage of 85.2 million skilled workers by the year 2030, which represents USD 8.45 trillion loss worldwide. In Bangladesh, it will have a huge impact on the workforce. According to A2i (Access to Information) 5.5 million people, which is 47% of the workforce will lose their jobs due to automation by

2041. Those factors really make us concerned about building and launching STEM (Science, Technology, Engineering, and Mathematics) tools relevant to learning programming and robotics. We are chasing the impact for developing Modern skill sets like programming, STEM, IoT, Robotics, AI education which are becoming cardinal for the career growth of a student. Moreover, the 4th Industrial Revolution is changing the way of life in our society. We intend on providing our youth with the right equipment and proper training for Robotics and STEM learning. We are a Dhaka based unique educational platform designed for learning STEM, for researching and

developing the product to enable it to be quicker and gamify the teaching of programming using robotics, logic, IoT based experiments, IoT hardware and data analysis.

MBR: What is the biggest achievement of ANTT Robotics in the last two years?

ANTT Robotics: ANTT Robotics is always strict about impact mapping along with business plans. We have followed the standard process of product development and deployment. We successfully showcased the ecosystem to facilitate the fourth industrial revolution in the region of Bangladesh. We have already achieved awards and grants from different International and National organizations like the "Ministry of Posts, Telecommunications

and Information Technology, Bangladesh". We were selected for top 07 startup in "Banglalink IT incubator 2.0", for top10 startup of Bangladesh in Youth Co:Lab 2019, Champion in "Call for Nation 2020", secured 3rd place and got an opportunity to participate in a 6 month incubation program in South Korea named "ideaTHON". The event is co-organized by the Korea Productivity Center (KPC) and the Korea Invention Promotion Association (KIPA). In addition, the ICT Division and the Bangladesh Computer Council of Bangladesh, the Ministry of Justice of South Korea, and the Global Start-up Immigration Center of South Korea were partners of the event.

MBR: How was the response of people in the initial stage?

ANTT Robotics: Everyone needs a solution-oriented approach in their life. Parents need more support to build futuristic learning for their kids, and every parent wants their child to succeed in his/her career. Therefore, ANTT Robotics Team is doing complete integration of advanced skills in their education from the beginning of their study period to make them more salient in their careers where our initiative is focusing on spreading knowledge among children and building future generations.

In the early stage in Bangladesh, we have attended the one-month pilot program in 9 schools (physical class) where more than 70 % of students were highly interested in learning programming. After the training session, around 76 % of students found it easy to learn programming with practical tools. We trained around 3150 students in 9 different schools within this period.

In Tanzania, Africa we have taken a three months pilot program virtually, where 7 out of 10 students were observed to have developed ideas using the latest technology tools, and could do basic programming. They were also able to develop the COVID-19 Contactless Hand Sanitization process for their own schools.

We have designed and developed all our courses and services digitally from the initiation of the project. During the COVID19 pandemic, all education services had been moved forcibly to online platforms; this process boosts our operations. Edtech market is expanding after the COVID-19 crisis and our customer response is increasing day by day. Currently, ANTT Robotics has two B2B (business to business) academic institutes where about 300 students are

getting service. Besides we have a community where about 5000 students are actively participating, developing, and learning STEM projects.

We want to control our lifestyle every day and we require its data. The Internet is the topmost technology that actually is a game-changer in this prospect. As students need to learn about career readiness skills, our product features are designed to assist a student to learn programming, IoT applications, electronics, robotics and STEM.

MBR: How do you think you can make the service more available to the younger generation?

ANTT Robotics: All tools and software are combining numerous emerging technologies like augmented reality, machine learning, digital books, IoT, embedded system, dashboard, graphical programming, modern programming language. We have designed our learning path into 4 groups: early state (age 8-12), primary state (age 12-15), secondary state (age 15-18), higher state (age 18-24).

Our primary concern is to make available the learning STEM tools and STEM curriculum to the students. This is why we have developed a partnership with STEM CLUB BANGLADESH to prompt and create awareness regarding STEM education. This collaborative initiative makes our service available to the students in a more effective way. All robotics tools are compatible with other available software like Arduino, SeedStudio, MIT Scratch programming, and so on.

After this pandemic, we are targeting to create a hub in all divisions and will partner with schools and colleges to prompt STEM education through STEM CLUB Bangladesh.

MBR: Currently, how many courses and workshops are being offered? And, what is the estimated number of students that joined the courses or STEM projects?

ANTT Robotics: ANTT Robotics is built as a unique service channel for dedicated users. The community platform is aimed to build awareness and learn the upcoming technology from experts. Workshops and Sessions are designed to provide the best gamification system to develop analytical skills, tech skills, and become problem solvers. The award-winning teams are directly mentoring through live virtual workshops. A Virtual Workshop is like a classroom providing hands-on learning experience

through virtual communication. The mission of this program is to support the education sector during the COVID-19 pandemic and help to develop the tech education quo. After COVID-19 pandemic, students lost support for learning their way around technology hands-on. We have taken the initiative with experts, and all required equipment boxes are delivered to the home on an on-demand basis.

Currently, we have offered 09 courses, 02 robotics tools, and 01 programming app. Jointly we have arranged two national STEM programs where we reached 85,000 people and had more than 200 participants in the contest, and also national level STEM, Robotics, and Technology experts shared their experiences. We have already given support to one academic organization in Bangladesh and one international organization regarding STEM education. Besides this, we have reached 5000 under in Bangladesh.

MBR: What are some general challenges ANTT Robotics is facing and how do you mitigate those?

ANTT Robotics: With our service, we are contributing to both SDG 4 and 8. We admit to the slow process of success but as a result of our service, the career paths and choices shall be easier for most people as they would already familiarize themselves with the skills required for the 4th Industrial Revolution.

In the middle of digitalization and dealing with a lack of skilled manpower we are facing a huge lack of basic knowledge of the importance of learning STEM. Many students are completing their education without having proper modern skills which are actually affecting the employment growth of the country. However, there are some piloting initiatives taken in Bangladesh to create digital schools but couldn't be scaled up due to lack of ICT trainers and equipment such as computers. Due to this challenge we have taken a collaborative initiative named STEM CLUB Bangladesh for promoting STEM education. We have planned to partner with academic institutes and provide the students freemium contents about STEM educations.

MBR: What is the core competency of ANTT Robotics Limited?

ANTT Robotics: ANTT Robotics is the only company offering a chain ecosystem of learning fourth industrial revolution skills using STEM and gamification learning. In the midst of local and international competitions, ANTT Robotics stands on an amazing balance of Community, Events, Courses, Devices & Services.

Our main competence is that all our products are being developed locally in Bangladesh and, we have been able to develop an ecosystem of STEM learning paths till undergraduate level.

MBR: What are the strategic priorities of ANTT Robotics at the moment? What are the future plans for the next five years?

ANTT Robotics: ANTT Robotics has come a long way and has only set realistic goals for the future of this company. The year 2020 has been significant for the company and we intend to keep up with the progress

in our coming years. We have carefully laid out our strategy and we have set a number of

adjectives for the next two years.

Our vision includes a target

of total 5000 users for whom we intend to provide a single platform for STEM learning. Launching a developed platform and advancing towards our official operation in Tanzania and two more cities of Tanzania are goals we wish to pursue. We would be weaking to launch our sides of the standard of the standard of the launch our sides of the launch our sides of the launch our sides of the standard of

also be working to launch our Augmented Reality Based Periodic Table Game.

We plan to step up our game by increasing our user target to 5 lacs by the year 2022. Artificial Intelligence (AI) is another sector towards which we wish to expand our area of work. We plan to launch AI-enabled robots for programming in the same year and expand our affiliation in Africa. The goal we have come up with for Bangladesh includes setting up AI (Artificial Intelligence) and STEM labs all over the country considering educational institutions in rural areas. We have been very careful with our plans and strategies so far and we wish to work accordingly in the coming years.

IDLC Invests BDT 4 crore as part of VC Fund I in Intelligent Machines Limited



IDLC Venture Capital Fund I is investing BDT 4 crore in Intelligent Machines Limited (IM), an AI (Artificial Intelligence)-first deep-tech startup that provides solutions to Enterprise Clients. This investment is part of IDLC VC (Venture Capital) Fund - I which is managed by IDLC Asset Management Limited, a wholly-owned subsidiary by IDLC Finance Limited.

Launched in March 2020, IDLC VC Fund I is a 45 crore taka Venture Capital Fund that invests in technology-based and high-growth startups in Bangladesh. The country has seen the emergence of a Startup Culture beginning in 2012, and inspired by that IDLC took the courageous step to launch the first-ever VC Fund in the country.

The current funding round will support their expansion in the Enterprise AI sector, where they have been serving an eminent range of clients such as bKash, BAT, Unilever, Arla Foods, Telenor Myanmar, and IDLC Finance. While speaking about the investment, Mohammad Oli Ahad, Founder and CEO of IM said, "We are greatly encouraged with this powerful association. Partnering with a highly respected team like IDLC who has led some of the pioneering industry standards in their fields would help us not only in

immediate journey but also strengthening our process assets and organization culture."

IDLC Finance Limited, the parent entity within IDLC Group, had previously invested in Chaldal with International Finance Corporation (IFC) as a coinvestor.

As the largest NBFI in Bangladesh for the last 35 years, we always thrived for new business opportunities. IDLC have always supported local businesses, be it large or small and pioneered multiple product categories. As a nation, we are cultivating the digital revolution. This investment is also not any exception, and we are delighted to be part of this. We will not be limiting ourselves to capital investment but extend guidance to the tech entrepreneurs too.

Arif Khan
CEO and Managing Director
IDLC Finance Limited

CAREER IN TREASURY MANAGEMENT



In the field of treasury, Nurul Karim Patwery is one of the most prominent figures in Bangladesh. He has completed his BBA and MBA from Accounting and Information System, Dhaka University. He started his career as a probationary officer back in July 2006 in IDLC Finance Ltd. He successfully climbed his ladder to becoming Head of Treasury of this very organization. He has always been a role model for people not only in the treasury sector but also for those who aspire to conquer the top positions in their career life. Our MBR team had an opportunity to have a one-on-one conversation with him.

Nurul Karim Patwery (Mamun)
Head of Treasury, IDLC Finance Limited

MBR: How treasury differs from other finance functions and roles of an organization?

Nurul Karim Patwery (Mamun): Generally, finance functions and roles are the part of accounting which deals with recording, analyzing, summarizing and reporting transactions to meet the financial objectives of the organization whereas Treasury is a specialized field which deals with the management of cash inflows and outflows to ensure sufficient liquidity of the organization to meet the debt obligations as well as managing risk associated with liquidity and market interest rate.

In a nutshell, finance focuses on the long term strategic planning but Treasury Management focuses on the short term and day to day monitoring of cash flows and ensuring the liquidity at minimum or feasible cost.

MBR: What type of skills is a must to have a career in treasury management? Are professional degrees needed in this career? If so, which one would be most fruitful?

Nurul Karim Patwery (Mamun): As specialized functions, to have a career in Treasury management someone should possess the following skills set.



Academic qualifications in finance background



Capable of handling figures and cash



Strong analytical ability



Prompt decision making capacity



Time sense and accuracy at work



Excellent relationship management capacity



Ability to work under pressure



Good communication skill



Control over planning and budgeting



Excellent leadership quality etc.

In general sense, professional degrees are not mandatory for making career in Treasury Management but, certainly, business professional degrees like CFA, FRM etc. will add extra value or competitive advantages in the career. However, academic degrees from school of business and economics are mandatory for starting career in Treasury Management.

MBR: What advice would you give to the candidates who are looking for a career in this sector?

Nurul Karim Patwery (Mamun): From my experience in Treasury department, undoubtedly, I can say career in Treasury Management is very exciting and the officials of Treasury can oversee the helicopter view of the whole economy. In Treasury, we pass through the numerous ups and downs with financial market volatility. If anyone is interested to develop a career in Treasury, along with relevant academic background, he/she needs to be self-motivated and then have to try to attain the skills set we mentioned earlier and, of course, have to keep close visibility in the financial systems, macroeconomic factors and relevant regulatory changes.

MBR: What are the challenges you faced in your career and what steps did you take to mitigate those?

Nurul Karim Patwery (Mamun): Of course, every business functions have some unique challenges and as a Treasury personal I also faced many challenges in my career. Since, I work closely with the financial market so most of the challenges I encountered from the market volatility and regulatory policy changes.

To mitigate this kind of risks/ challenges, first of all we focused on setting up the policy and process regarding how to react with those challenges and after developing those policies and guidelines prudently and implementing the same, we easily coped up with all the challenges. Since, I mainly deal with liquidity and interest rate risk, so we as a team developed liquidity and interest rate risk management policy and guidelines to mitigate those risks. My strategy to mitigate any kind of challenges is to acknowledge the situations first and then take necessary steps to encounter the same. Another major challenge we face in the industry is the weaker peer group and to mitigate these challenges we always try to remain vigilant in the market through better risk management, honor all debt obligation in times and always remain connected with the market participants.



Performance of Equity Markets of Bangladesh and Peer Countries

Bangladesh equity market ended the first month of the year 2021 in positive territory. During the month, the broad index DSEX gained 4.6%, while blue chip index DS30 increased by 10.0%. On the other hand, Shariah index DSES increased by 1.9%, respectively. Among the regional peers, Sri Lanka advanced (+28.0%) the most during the month, followed by Pakistan (+6.0%). On the other hand, Vietnam (-4.3%) ended the month in negative territory. MSCI Frontier Markets Index remained flat with 0.5% return. Over the long term, Vietnam showed the most encouraging track record with a 5 years' return of 93.8%.

Table 1: Equity market performance of Bangladesh and peer countries

| Indices | Index Points, | | Return* | | | | | | | |
|-----------------------------|---------------|-------|---------|-------|--------|-------|--|--|--|--|
| indices. | January 2021 | 1M | зМ | 12M | 3Y | 5Y | | | | |
| Bangladesh | | • | | | | ' | | | | |
| DSEX | 5,649.9 | 4.6% | 16.6% | 26.4% | -6.5% | 24.4% | | | | |
| DS30 | 2,160.4 | 10.0% | 28.6% | 41.8% | -3.5% | 25.7% | | | | |
| DSES | 1,265.4 | 1.9% | 15.2% | 23.1% | -9.5% | N/A | | | | |
| Peer Countries | | | • | | - | • | | | | |
| Pakistan (KSE 100) | 46,385.5 | 6.0% | 16.3% | 11.4% | 5.3% | 48.2% | | | | |
| Sri Lanka (CSE - All Share) | 8,668.1 | 28.0% | 51.4% | 46.2% | 33.8% | 36.7% | | | | |
| Vietnam (VNI) | 1,056.6 | -4.3% | 14.2% | 12.8% | -4.8% | 93.8% | | | | |
| MSCI Frontier Markets Index | 748.3 | 0.5% | 9.2% | -2.6% | -13.0% | 29.4% | | | | |

^{*}All returns are Holding Period Return

Table 2: Market capitalization and turnover

statistics

Liquidity Condition in Equity Market of Bangladeshh

During January, the total market capitalization increased by 6.9%. The daily average turnover of January was BDT 16.2 bn (USD 190.7 mn), increasing by 57.3% from that of last month. Turnover velocity which represents overall liquidity of the market stood at 85.1% in January compared to 57.8% of last month. In 2020, turnover velocity of Bangladesh equity market was 30.1%, in comparison to 33.5% in 2019.

| Particulars | 31-Jan-21 | 31-Dec-20 | % change |
|---|-----------|-----------|----------|
| Total market capitalization (USD* mn) | 56,489 | 52,857 | 6.9% |
| Total equity market capitalization (USD mn) | 49,474 | 45,839 | 7.9% |
| Total free float market capitalization (USD mn) | 17,495 | 16,548 | 5.7% |
| Daily Avg. Turnover (USD mn) | 190.7 | 121.2 | 57.3% |
| Turnover Velocity~ | 85.1% | 57.8% | N/A |

Source: Investing.com, MSCI, DSE

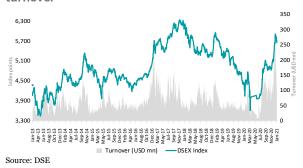
^{*}All USD figures are converted using an exchange rate of 84.80 as of January 31, 2021 as per Bangladesh Bank website.

 $[\]sim$ Turnover velocity is calculated by dividing monthly total turnover with monthend market capitalization. The figures are annualized.

Historical Index Points and Market Participation Data

Since its inception on January 27, 2013, DSEX yielded a holding period return of 39.3% till January, 2021. During the same period, daily average turnover of the market amounted to BDT 5.6 bn (USD 64.9 mn) (Figure 1).

Figure 1: DSEX since inception along with market turnover



Market Valuation Level - P/E Ratio:

The market P/E increased to 18.09x in January compared to last month's 16.5x. It is slightly higher than the 20 years' median market P/E of 15.02x (Figure 2). In terms of trailing 12 month P/E ratio, the equity market of Bangladesh is cheaper than most of its regional peers. (Figure 3).

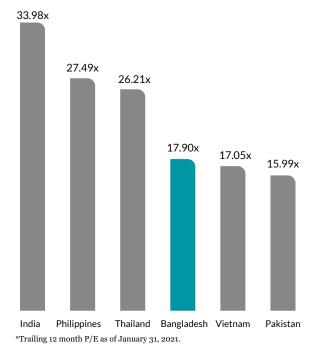
Figure 2: Historical market P/E* and it's median Current Market P/E* in Context of History



*Price Earnings (P/E) Ratio is calculated by dividing total market capitalization of all profit making listed companies with their total audited annual earnings.

Source: CEIC, DSE

Figure 3: Current market P/E* of Bangladesh and peer countries



Source: IDLC, Bloomberg

Sector Performance

During January, Food & Allied sector (+24.7%) advanced the most, followed by Miscellaneous (+22.0%) and Telecommunication (+17.1%). On the other hand, Non-Life Insurance (-12.9%) faced the highest selling pressure among the major sectors.

Fuel & Power sector has the highest dividend yield of 4.9% among all sectors.



Table 3: Sector performance snapshot

| Sector | | pitalization D mn) | | | Return* | | | P/E (x)** | P/BV (x)^ | Dividend Yield~ |
|--------------------------------|--------|-----------------------|--------|-------|---------|-----------|--------|-----------|-----------|--------------------|
| | Total | Free Float | 1M | 3M | 12M | 3Y | 5Y | | | Ticiu |
| Telecommunication | 9,491 | 1,001 | 17.1% | 37.0% | 86.8% | 9.3% | 128.5% | 20.0 | 6.8 | 4.7% |
| Pharmaceuticals & Chemicals | 7,259 | 3,920 | 1.8% | 11.6% | 23.0% | 9.2% | 41.8% | 17.8 | 2.7 | 1.4% |
| Bank | 6,906 | 3,876 | 2.9% | 7.6% | 18.7% | -5.3% | 75.6% | 8.5 | 0.6 | 4.0% |
| Engineering | 5,732 | 1,077 | -2.6% | 34.6% | 86.7% | 29.7% | 51.7% | 18.2 | 2.4 | 1.8% |
| Fuel & Power | 5,367 | 1,447 | 3.8% | -1.4% | 8.2% | 16.8% | 42.0% | 12.3 | 1.4 | 4.9% |
| Food & Allied | 4,388 | 1,317 | 24.7% | 40.4% | 59.4% | 35.3% | 69.3% | 25.1 | 7.1 | 2.4% |
| NBFI | 2,371 | 753 | 7.6% | 16.2% | 41.2% | -9.5% | 48.0% | 27.8 | 2.0 | 1.8% |
| Miscellaneous | 2,036 | 828 | 22.0% | 66.1% | 76.2% | 87.9% | 117.5% | 45.9 | 1.6 | 1.2% |
| Textile | 1,283 | 740 | -1.4% | -0.5% | 1.3% | -19.5% | -3.6% | 16.7 | 0.8 | 1.8% |
| Cement | 1,101 | 446 | 5.3% | 20.9% | 8.6% | -24.5% | -30.0% | 20.7 | 2.3 | 1.6% |
| Non Life Insurance | 1,013 | 570 | -12.9% | -4.6% | 71.7% | 122.8% | 216.7% | 19.2 | 2.0 | 2.1% |
| Life Insurance | 660 | 369 | -2.2% | 3.6% | -4.4% | 18.9% | 29.3% | 25.6 | 7.0 | 2.0% |
| Travel & Leisure | 304 | 160 | -0.8% | -0.6% | 1.4% | 4.1% | 27.8% | 80.1 | 0.8 | 0.5% |
| Ceramics | 284 | 119 | -0.2% | 10.6% | 4.7% | -15.7% | -16.7% | 88.7 | 1.6 | 2.9% |
| ΙΤ | 268 | 166 | -10.1% | -5.4% | 1.1% | -3.2% | -13.1% | 21.6 | 2.3 | 1.7% |
| Services & Real Estate | 223 | 114 | -1.6% | 23.8% | 27.9% | -8.5% | -12.3% | 15.8 | 1.1 | 2.6% |
| Tannery | 217 | 107 | -2.9% | 2.3% | -7.4% | -30.1% | -33.8% | 20.4 | 1.7 | 1.2% |
| Paper & Printing | 178 | 59 | -4.5% | 3.6% | 2.5% | -51.2% | -52.6% | 45.9 | 1.2 | 0.0% |
| Jute | 25 | 16 | -24.9% | 7.8% | 0.5% | 19.0% | 173.4% | 762.7 | 8.5 | 0.2% |
| Market | 49,646 | 17,495 | 4.6% | 16.6% | 26.4% | -6.5% | 24.4% | 16.2 | 1.8 | 3.0% |

^{*}All returns are Holding Period Return.

Cap Class Performance

During the month of January, Only Large Cap (+8.0%) class advanced. Large Cap was also the highest dividend yielding (3.3%) class.

Table 4: Performance of different market cap classes

| Cap Class | Market Capitalization of Constituent | % of Total Equity Market | | | Return* | P/E (x) | P/BV (x) | Dividend | | |
|-----------|--|-----------------------------|-------|-------|---------|---------|------------|----------|-----|-------|
| сир слазз | Companies (USD mn) | Capitalization | 1M | 3M | 12M | 3Y | 5 Y | 1/2(1) | | Yield |
| Large | ≥119 | 84.3% | 8.0% | 15.1% | 32.1% | 34.8% | 111.5% | 16.0 | 1.9 | 3.3% |
| Mid | 36-118 | 8.8% | -0.2% | 6.3% | 18.2% | -55.0% | -37.6% | 15.9 | 1.0 | 2.1% |
| Small | 12-35 | 6.0% | -6.3% | -0.8% | 16.4% | 19.4% | 66.1% | 22.5 | 0.9 | 1.8% |
| Micro | <12 | 0.9% | -7.1% | -7.0% | 7.4% | -91.3% | -88.5% | 22.2 | 0.2 | 0.7% |
| Market | - | - | 4.6% | 16.6% | 26.4% | -6.5% | 24.4% | 16.2 | 1.8 | 3.0% |

^{*}All returns are Holding Period Return

Performance of 20 Largest Listed Companies in Bangladesh

Among the 20 largest listed companies in terms of market capitalization ROBI (+75.8%), BEXIMCO (+53.0%), BATBC (+32.3%), SUMITPOWER (+18.3%) yielded attractive return.

Majority of these companies yielded outstanding return over longer time horizon (5 years) such as BEXIMCO (+332.1%), UPGDCL (+184.8%), and BXPHARMA (+137.6).

Among the scrips, TITASGAS, GP, SUMITPOWER, DUTCHBANGL, UPGDCL and ISLAMIBANK recorded higher dividend yield compared to that of market.

^{**}Price Earnings (P/E) Ratio is calculated by dividing total market capitalization of all profit making listed companies with their annualized earnings.

[^]P/BV is calculated by dividing total market capitalization of listed companies with their respective total book values, excluding companies with negative book values.

 $^{{\}sim} Dividend\ yield\ is\ calculated\ by\ dividing\ last\ year's\ declared\ cash\ dividend\ with\ market\ capitalization.$

Table 5: Snapshot of 20 largest companies in terms of market capitalization

| DSE Code | Sector | | | Daily Avg. Turnover | Return* | | | | P/E (x) | P/BV | Dividend Yield | |
|------------|-----------------------------|--------|------------|------------------------|---------|--------|--------|--------|---------|---------|-------------------|-------|
| | | Total | Free Float | (USD Mn) | 1M | зМ | 12M | 3Y | 5Y | , . (1) | (X) | Yieid |
| GP | Telecommunica- tion | 5,922 | 592 | 1.36 | 7.1% | 12.8% | 53.9% | -11.0% | 89.2% | 13.5 | 17.3 | 7.4% |
| WALTONHIL^ | Engineering | 3,742 | 36 | 1.14 | -6.0% | 52.8% | N/A | N/A | N/A | 19.7 | 4.0 | 1.9% |
| BATBC | Food & Allied | 3,317 | 877 | 3.14 | 32.3% | 47.9% | 56.2% | 36.9% | 71.9% | 24.2 | 8.5 | 2.6% |
| ROBI^ | Telecommunication | 3,237 | 322 | 13.72 | 75.8% | N/A | N/A | N/A | N/A | 177.4 | 4.5 | 0.0% |
| SQURPHARMA | Pharmaceuticals & Chemicals | 2,416 | 1,581 | 3.71 | 5.3% | 16.5% | 16.6% | -16.3% | 28.0% | 13.0 | 2.9 | 1.9% |
| UPGDCL | Fuel & Power | 1,926 | 193 | 2.13 | 6.9% | -7.7% | 8.6% | 121.9% | 184.8% | 14.0 | 6.2 | 4.7% |
| RENATA | Pharmaceuticals & Chemicals | 1,327 | 648 | 0.28 | 4.3% | -0.2% | 6.9% | 22.0% | 63.2% | 22.7 | 5.7 | 1.0% |
| ICB | NBFI | 1,008 | 32 | 0.48 | 7.4% | 13.7% | 34.3% | -17.2% | 37.3% | 69.6 | 9.0 | 0.4% |
| BXPHARMA | Pharmaceuticals & Chemicals | 969 | 677 | 13.05 | -3.3% | 55.7% | 148.8% | 78.4% | 137.6% | 18.6 | 2.7 | 0.7% |
| BEXIMCO | Miscellaneous | 901 | 626 | 21.04 | 53.0% | 311.3% | 527.3% | 268.7% | 332.1% | 155.7 | 1.3 | 0.6% |
| BERGERPBL | Miscellaneous | 839 | 42 | 0.32 | 7.4% | 16.0% | 11.5% | 51.0% | 70.0% | 32.0 | 9.8 | 1.9% |
| MARICO | Pharmaceuticals & Chemicals | 800 | 80 | 0.44 | 0.7% | 2.6% | 32.7% | 106.3% | 98.6% | 20.4 | 36.8 | 0.9% |
| BRACBANK | Bank | 755 | 406 | 0.87 | 9.0% | 16.4% | 6.1% | -21.2% | 105.7% | 18.0 | 1.7 | 1.4% |
| LHBL | Cement | 688 | 243 | 5.69 | 5.0% | 27.7% | 2.6% | -11.8% | -23.8% | 29.2 | 3.7 | 2.0% |
| SUMITPOWER | Fuel & Power | 579 | 213 | 5.40 | 18.3% | 15.6% | 21.7% | 54.2% | 66.7% | 8.9 | 1.5 | 4.3% |
| ISLAMIBANK | Bank | 524 | 255 | 0.30 | 3.0% | 5.7% | 56.5% | -7.3% | 36.6% | 9.0 | 0.8 | 3.6% |
| UNILEVERCL | Food & Allied | 426 | 40 | 0.24 | 6.8% | 42.9% | 78.1% | 105.5% | 96.3% | 59.1 | 32.0 | 1.8% |
| OLYMPIC | Food & Allied | 420 | 255 | 0.71 | -6.7% | -0.3% | -8.6% | -34.2% | -21.2% | 16.6 | 4.9 | 2.9% |
| DUTCHBANGL | Bank | 395 | 51 | 0.25 | 3.1% | 5.2% | 9.5% | 39.9% | 101.4% | 8.0 | 1.3 | 4.5% |
| TITASGAS | Fuel & Power | 391 | 98 | 0.59 | 8.8% | -3.5% | 7.4% | -10.6% | -7.0% | 12.5 | 0.5 | 7.8% |
| Market | | 49,646 | 17,495 | 190.69 | 4.6% | 16.6% | 26.4% | -6.5% | 24.4% | 16.2 | 1.8 | 3.0% |

^{*}All returns are Holding Period Return.

 $^{^{\}wedge} WALTONHIL\ got\ listed\ on\ September\ 23,\ 2020.\ \ ROBI\ got\ listed\ on\ January\ 24,\ 2020.$

Top Performing Mutual Funds:

Table 6: Top ten open end funds based on 4Y return (CAGR) performance

| News | Asset Management | Fund Size | NAV Return | | | | |
|-------------------------------------|------------------|-----------|------------|-------|-----------|--|--|
| Name | Company | (USD mn) | 2021 YTD* | 2020 | 2017-2020 | | |
| CAPM Unit Fund | CAPM | 1.9 | 5.2% | 30.6% | 11.4% | | |
| UFS-Pragati Life Unit Fund^ | UFS | 0.9 | N/A | 35.5% | 9.1% | | |
| LankaBangla 1st Balanced Unit Fund | LankaBangla | 5.1 | 0.6% | 29.2% | 8.7% | | |
| Peninsula AMCL BDBL Unit Fund One | Peninsula | 2.3 | 14.5% | 35.3% | 8.5% | | |
| IDLC Balanced Fund | IDLC | 8.0 | 8.4% | 29.4% | 8.3% | | |
| Seventh ICB Unit Fund | ICB | 5.0 | 15.0% | 20.4% | 7.7% | | |
| VIPB Accelerated Income Unit Fund | VIPB | 8.3 | 9.1% | 13.0% | 7.2% | | |
| ICB AMCL Pension Holders' Unit Fund | ICB | 3.4 | 1.4% | 36.5% | 6.9% | | |
| ATC Shariah Unit Fund | ATCP | 1.5 | 9.3% | 17.6% | 6.6% | | |
| Third ICB Unit Fund | ICB | 3.8 | 13.1% | 23.9% | 6.4% | | |
| Market (Broad Index) Return (%) | • | | 6.0% | 22.3% | 1.8% | | |

Based on published NAV and DSEX point of January 28, 2021

All the top ten closed end mutual funds on the basis of 5 years (2016-2020) performance yielded positive returns on YTD bas. Among them, ICBAMCL2ND (+12.8%) yielded the highest return.

Table 7: Top ten close end funds based on 5Y return (CAGR) performance

| DSE Code | Fund | Fund Size | Price¹ | NAV¹ | Price/ | | Redemption | | | | |
|------------|-----------|-----------|--------|-------|--------|------|------------|-------|-------|---------|-------------------|
| DSE Code | runa | (USD mn) | (BDT) | (BDT) | NAV | | 2021 YTD | 2020 | | 2016-20 | Year ⁴ |
| NLI1STMF | VIPB | 8.9 | 12.8 | 15.0 | 85.6% | 3.9% | 8.9% | 13.4% | -0.1% | 9.5% | 2022 |
| GRAMEENS2 | AIMS | 42.4 | 17.2 | 19.7 | 87.2% | 4.1% | 5.5% | 18.5% | 2.7% | 9.2% | 2023 |
| SEBL1STMF | VIPB | 16.5 | 12.1 | 14.0 | 86.2% | 2.5% | 8.6% | 12.8% | -0.4% | 9.1% | 2021 |
| RELIANCE1 | AIMS | 9.8 | 12.0 | 13.7 | 87.7% | 0.0% | 5.3% | 15.5% | 2.2% | 8.7% | 2021 |
| 1STPRIMFMF | ICB AMCL | 3.0 | 19.2 | 12.8 | 149.8% | 4.2% | 11.8% | 35.7% | 3.1% | 8.5% | 2029 |
| PRIME1ICBA | ICB AMCL | 10.7 | 6.7 | 9.1 | 73.6% | 7.5% | 10.8% | 33.0% | 2.8% | 8.1% | 2030 |
| ICBSONALI1 | ICB | 11.1 | 7.9 | 9.4 | 83.9% | 6.3% | 6.7% | 28.3% | 2.4% | 7.8% | 2023 |
| ICBEPMF1S1 | ICB | 7.3 | 6.8 | 8.3 | 82.0% | 7.4% | 11.4% | 40.0% | 1.4% | 6.9% | 2030 |
| ICBAMCL2ND | ICB | 5.6 | 7.9 | 9.6 | 82.7% | 6.3% | 12.8% | 35.1% | 0.3% | 6.9% | 2029 |
| LRGLOBMF1 | LR GLOBAL | 44.7 | 6.8 | 12.2 | 55.8% | 5.9% | 5.1% | 24.9% | 2.0% | 6.7% | 2031 |
| Market | | | | - | | 2.7% | 6.0% | 22.3% | -4.7% | 3.1% | |

¹ Price as of February 01, 2020, and NAV published on January 28, 2021.

[^]NAV of Dec 30 was not disclosed due to year closing.

² On last cash dividend declared.

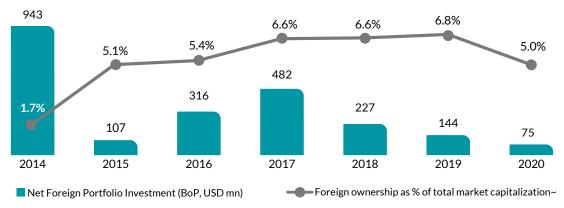
³CAGR computed for respected periods, except for 2019 and 2020 YTD, adjusted for dividend. YTD returns of funds debuting within the year represent return generated since debut, hence is not directly comparable with return of funds that operated throughout the year.

⁴In reference to BSEC Press Release বিএসইবস/মুখপার (তয় খড)/২০১১/২৫ published on March 16, 2018, tenure of existing listed closed end mutual funds can be extended by another tenure equal to maximum 10 years, provided that the full tenure of the subject fund does not exceed 20 years in total. However, the mutual funds those are not willing to extend their tenure will still have the option to convert or wind up as per rules and regulations.

Foreign Participation in Equity Market of Bangladesh

Over last 5 years, Bangladesh equity market has seen a surge of foreign investment. As of December, 2020 total foreign ownership stood at 5.0% of the total equity market capitalization, which was only 1.7% in 2014.

Figure 4: Net foreign portfolio investment and foreign ownership as % of total equity market capitalization



Source: DSE and Bangladesh Bank

Among all the companies with foreign ownership, BRACBANK had the highest foreign shareholding of 39.6% as of December 2020, followed by OLYMPIC with 28.4%.

Table 8: Top ten companies with highest foreign shareholding as of December 2020

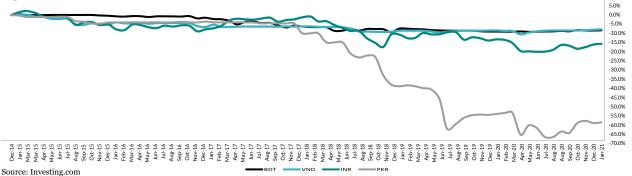
| Ticker | Sector | Foreign Shareholding* |
|------------|-----------------------------|-----------------------|
| BRACBANK | Bank | 39.6% |
| OLYMPIC | Food & Allied | 28.4% |
| BXPHARMA | Pharmaceuticals & Chemicals | 28.3% |
| RENATA | Pharmaceuticals & Chemicals | 22.7% |
| MLDYEING | Textile | 21.9% |
| DBH | NBFI | 21.7% |
| ISLAMIBANK | Bank | 20.6% |
| SHEPHERD | Textile | 18.4% |
| VFSTDL | Textile | 18.3% |
| BSRMLTD | Engineering | 17.1% |

Source: DSE

Performance of BDT and Currencies of Peer Countries against USD

Since 2015, BDT retained its value better than majority of the currencies of peer countries. While BDT depreciated by 8.3% against US Dollar, other currencies of neighbor countries like Vietnamese Dong (VND), Indian Rupee (INR) and Pakistani Rupee (PKR) lost 7.8%, 15.6% and 58.3%, respectively.

Figure 5: Five year's relative performance of BDT and peer currencies



^{~%} of foreign ownership of equity market capitalization data are as of December of the respective years.

^{*}Latest Data for Foreign shareholding available on DSE are as of December 2020

