

An Overview of the Cement Industry in Bangladesh



EDITOR

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



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An Overview of the Cement Industry in Bangladesh

Md. Nahidul Islam Shawon*

Abstract

The global value of the cement industry is standing at USD 326.81 billion, projected to reach USD 481.73 billion by 2029. The cement industry in Bangladesh has emerged as a crucial driver of economic growth, fueled by a boom in infrastructure development and construction projects. This study delves into the industry's history, current state, growth drivers and future prospects. Bangladesh's cement industry has the potential to thrive, making a substantial contribution to the nation's economic prosperity. The growth drivers of this sector include government investments, housing demand, and exports. Despite challenges, the sector aligns with development goals, including power generation and infrastructure projects. While facing hurdles, the cement industry contributes to Bangladesh's economy through investment and growth. Addressing challenges with foresight and collaboration can ensure its substantial role in economic development. The industry's landscape is dominated by ten major players, two multinationals, controlling approximately 75% of the market share. This study also highlights the key industry data, including market shares of leading companies, investment activities, consumption patterns, environmental impacts, and challenges faced by the sector.

Introduction

The cement industry is one of the key drivers in the economic growth of Bangladesh. In recent years, the country has undergone a major infrastructural development boom, which has led to a surge in demand for cement and construction materials. Bangladesh began developing its cement industry in the early 1950s. However, the country was heavily reliant on imports until the early 1990s. Today, there are 37 active cement factories in Bangladesh, with a total investment of over BDT 30,000 crore. Only ten corporations, including two multinationals, control approximately 75% of the market share.

Only six market players are listed on the Dhaka Stock Exchange (BCMA, 2023).

The cement industry experienced a significant slowdown during the COVID-19 pandemic. Large cement manufacturers' sales decreased, and most businesses also encountered challenges such as a raw material shortage due to a halt in real estate activity and missed peak season sales. After going through a tough time for the last two years, the cement manufacturers are experiencing a slight increase in demand, riding on some big infrastructure projects. However, the demand is still slow with the global political unrest due to the Russia-Ukraine War. Bangladesh produced a low quantity of cement in FY2022 compared to other developing countries like Vietnam and Egypt. Though Bangladesh is selfsufficient in cement production, raw materials needed for cement production must be imported. Nevertheless, in FY2022, the total export revenue earning from cement was USD 9.57 million, indicating that 14.94 percent will be growth in the export earnings from the cement industry (EPB, 2023). The sector is also going through a slow pace in the Dhaka Stock Exchange (DSE).



^{*}The author is Research Associate, ECRL

Here are some of the critical challenges facing the cement industry in Bangladesh:

Overcapacity: The cement industry in Bangladesh is facing overcapacity, with a production capacity much higher than the current demand. This has led to lower prices and lower profits for cement manufacturers.

Raw material shortages: The cement industry in Bangladesh is facing raw material shortages, mainly limestone. This is because most of the limestone reserves in Bangladesh are located in remote areas, which makes it difficult and expensive to extract and transport.

High energy costs: Bangladesh's cement industry faces high energy costs, which is a significant factor in the high cost of cement.

Environmental concerns: Bangladesh's cement industry faces environmental concerns, such as air and water pollution.

Despite the challenges, the future outlook of the cement industry in Bangladesh is positive. The industry is expected to grow at a compound annual growth rate (CAGR) of 8% from 2023 to 2028. This growth will be driven by several factors, including:

Infrastructure development: The government of Bangladesh is investing heavily in infrastructure development, which is expected to drive demand for cement in the coming years.

Rising demand for housing and commercial construction: The demand for housing and commercial construction is rising in Bangladesh, which is expected to drive demand for cement in the coming years.

Export market: Bangladesh has a small but growing export market for cement. The government is working to expand the export market for cement in the coming years.

Overall, the cement industry in Bangladesh is facing some challenges, but there are also some growth opportunities. The industry is expected to grow in the coming years, driven by the government's focus on infrastructure development and export in developed countries.

Outlook

Despite facing some challenges in recent years, Bangladesh's cement sector has solid prospects for growth as the country's economy is expected to reach \$800 billion by 2030.

Bangladesh Cement Industry Overview

heavily in infrastructure Bangladesh invests development, particularly power generation, highway construction, and bridge building. The cement industry has the potential to play a good role in Bangladesh's goal of becoming a developed country by 2041.

Bangladesh's cement industry is the 40th largest in Bangladesh world. and the Cement Manufacturers Association estimates that it generates \$3 billion in annual sales. The industry has an annual production capacity of 58 million tonnes, which exceeds the local demand of 33 million tonnes.

The country's cement industry is expected to grow in the coming years, driven by government infrastructure spending and rising demand from the private sector. The industry is also expected to benefit from the country's growing population and rising urbanization.



Table 1. Bangladesh Cement Industry

Market Share	Leading Position Shah Cement Industries Ltd.		
Consumption	Public Sector:45% Real Estate 30% Individual 25%		
Total Revenue (Listed Companies)	BDT 80,272 Million		
Export	USD 9.57 Million		

Table 2. Share Holding Pattern of the cement industry

Company	Sponsor	Govt.	Institute	Foreign	Public
LHBL	64.68%	0%	16.89%	0.63%	17.80%
Heidelberg	60.67%	0%	26.61%	0.43%	12.29%
Confidence Cement	30.03%	0%	35.43%	0%	34.54%
Crown Cement	67.08%	0%	17.70%	0.05%	15.17%
Premier Cement	47.15%	0%	21.31%	0.03%	31.51%
Meghna Cement	49.76%	0%	33.50%	0%	16.74%
Aramit Cement	45.92%	0%	10.02%	0%	44.06%

Source: Royal Capital Ltd. Website (Royal Capital, 2022)

Crown Cement

Table 3. Investment Activities of Major Cement Manufacturers

Confidence Cement

	The 6th Unit has been established at Munshiganj. Production capacity increase of 8,280 MT/Day Total capacity to be reached 19,280 MT/Day Total investment BDT 7.7 billion Project Completion: February 2023	Formed a consortium in 2022 with Confidence Power Ltd. to develop 660 MW Gas/R-LNG- based power plants in Mirsarai, Chittagong.
	Heidelberg Cement	Premier Cement
•	Acquisition of 100% of the shareholding of Emirates Cement Bangladesh (capacity per annum: 0.05 MMT; plant location: Munshiganj) and Emirates Power Company for USD 21.5 million took	Started commercial production of VRM in July 2022. Capital Invested BDT 8.1 billion (approximate). Total production capacity
_	place in 2021. Total Production Capacity: 3.51 million MT/Annum. urce: EBL Securities Ltd. Website (EB	reached 25,520 MT/Day from 8,000 MT/Day.

Table 4. Real-estate activities (at Constant Prices)

Year	BDT billion	% of GDP
2017-18	2,058	8.7%
2018-19	2,133	8.3%
2019-20	2,211	8.3%
2020-21	2,287	8.1%
2021-22	2,371	7.8%

Table 5. Global Cement Industry

USD 326.81 billion
China
China
United States USD 1.8 billion
Vietnam USD 2.1 billion

Global Market Size

The cement industry is a crucial driver of infrastructure development around the world. In 2021, the global cement market was valued at USD 326.81 billion, and it is expected to grow at a CAGR of 5.1% from 2022 to 2029, reaching USD 481.73 billion by 2029.

China is the world's leading producer of cement, with a production of 2100 million tons in 2021. India is the second-largest producer, with a production of 370 million tons. Vietnam is the third-largest producer, with a production of 120 million tons. The United States is the fourth-largest producer, producing 95 million tons.

Bangladesh is a relatively small cement producer, producing 17.9 million tons in 2021. However, the country's cement industry is expected to grow in the coming years, driven by government infrastructure spending and rising demand from the private sector (Royal Capital, 2022).

Table 6. Top 10 Largest Cement Companies in the world

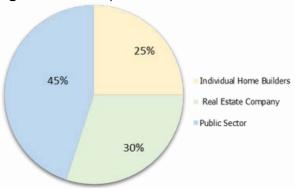
Company	Annual cement Production (Mt/yr)	Cement Production Capacity (Mt/yr)	Country
LafargelHolcim	286.6	386.5	Switzerland
Anhui Conch Cement	217.2	288	China
CNBM	176.22	406	China
Heidelberg Cement	121.11	129	Germany
Cemex	87.09	93	Mexico
Italcementi	76.62	77	Italy
China Resources	71.02	78.3	China
Taiwan Cement	63.72	69	Taiwan
Eurocement	45.18	50	Russia
Votorantim Group	45.02	54.4	Brazil

Source: Royal Capital Ltd. Website (Royal Capital, 2022)

Sector Wise Use

Cement is used to construct buildings, roads, airports, railways, and other works. Three-quarters of the cement produced in Bangladesh is consumed in Dhaka and Chittagong divisions alone. Figure 1 shows that most cement is used in public organizations, as seen in the chart (45%). Real estate developers used commercial cement products (30%), and individual homemakers used the rest 25%. (Faruquee, 2021)

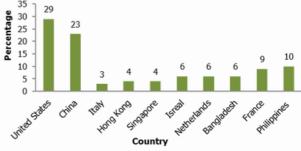
Figure 1. Consumption of cement



Major Importers and Exporters of Cement in 2022

In 2022, the United States was the world's leading cement importer, with an estimated import volume of 1.8 billion units. Following closely were China, with an import volume of 1.4 billion units, and the Philippines, with an import volume of 608.3 million units, occupying the second and third positions respectively, among global cement importers. During the same year, Bangladesh imported approximately US\$ 384.5 million worth of cement, primarily sourced from the United Arab Emirates, Thailand, Indonesia, Pakistan, and Vietnam. Presented below are ten countries that recorded the highest monetary value of cement purchases in 2022 (Royal Capital, 2022):

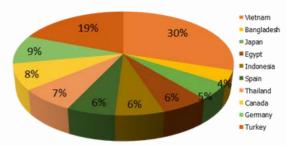
Figure 2. Top 10 Importers in the world



Country Name	US\$
United States	1.8 billion
China	1.4 billion
Philippines	608.3 million
France	560.9 million
Bangladesh	384.5 million
Netherland	357.5 million
Israel	341.3 million
Singapore	233.5 million
Hong Kong	233.2 million
Italy	219.3 million

Below are the ten countries that exported the highest dollar value worth of cement in 2022 (Royal Capital, 2022):

Figure 3. Top 10 Exporters in the world



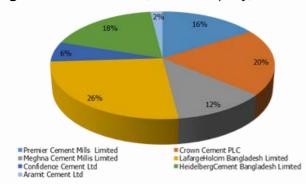
Country Name	US\$
Vietnam	2.1 billion
Turkey	1.4 billion
Bangladesh	9.57 million
Germany	610.4 million
Canada	535.3 million
Thailand	501.9 million
Spain	429.5 million
Indonesia	407.4 million
Egypt	393.8 million
Japan	382.4 million

Among the cement exporter country, Vietnam is in the first position globally. Then Turkey and Bangladesh are in the second and third position of the world for export cement. Besides satisfying the local demands, the country's cement industry is also exporting to neighboring countries like India, Myanmar, Nepal, Maldives, and Sri Lanka.

Market Share (Listed Company)

Among listed companies, LafargeHolcim Bangladesh Ltd. holds the leading position (26% Market Share). Then Crown Cement PLC and Heidelberg Cement Bangladesh Limited in the second (20% market share) and third (18% market share) positions (BCMA, 2023).

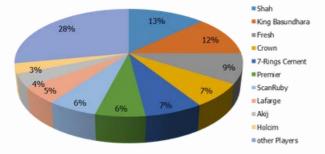
Figure 4. Market Share (Listed Company)



Market Share

According to the latest data of Bangladesh Cement Manufacturers Association (BCMA), Shah Cement industries limited holds the leading position (13% Market Share). This is the largest cement-producing plant in Bangladesh, with a capacity of 10 million metric tons per annum. Then King Basundhara and fresh cement Bangladesh were limited in the second and third positions (BCMA, 2023).

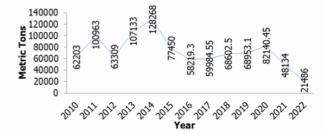
Figure 5. Market Share (%)



Bangladesh Cement production

Due to the increasing population, rapid urbanization, and infrastructural development, there is a demand for cement in the country, which will contribute to the economic growth of Bangladesh. Cement production in Bangladesh from 2010 to 2022 will be upward and downward. In the year 2010, cement production in Bangladesh was 62203 metric tons, and in 2022 cement production was 21496 metric tons (BB, 2023)

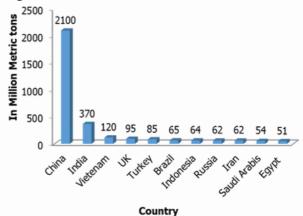
Figure 6. Production (Metric Tons)



World Cement Production

Cement is used in infrastructure development worldwide. Cement is used for both internal and external works. Cement is also used to construct large civil structures such as dams, railways, highways, and airports and small structures such as residences. The production of cement worldwide in 2022 is depicted in Figure 7. China is the world's biggest producer and user of cement. In 2022, they produced 2100 MT (in millions) of cement. India and Vietnam were in second and third place, producing 370 and 120 MT (in millions) of cement, respectively(statista, 2022)

Figure 7. Production (in million metric tons)



Market Growth

Bangladesh's cement sector plays a vital role in infrastructure development. During the Pandemic of 2020, various government and commercial development projects in the country were stopped for some time. During this time, most cement manufacturers saw a drop in sales due to a shortage of raw materials, which affected their economy. The pandemic returned to normal in 2023, and the cement industry recovered quickly.

The market growth rate will be faster in 2022 than 2020 and 2021. The Market growth rate of the cement industry in the year 2015, 2016, 2017, 2018, 2019, and 2020 is 5.91%, 19.19%, 8.32%, 15.69%, 7.37%, and -7.65%. In 2016 the market growth rate will be the highest compared to the other years (BCMA, 2023).

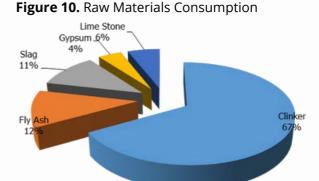
Figure 8. Market Growth of cement industry



Raw Materials Import for Cement

Though Bangladesh is self-sufficient in cement production, raw materials production for cement is still import dependent. The production amount of cement is high, which also increases the demand for the raw material of the cement. The most important raw material for cement is clinker, where limestone is the main element in making the clinker. However, this limestone cannot be supplied from Bangladesh. There are only two companies in Bangladesh that produce clinker. In FY 2021-2022, Bangladesh imported 384.5 million tons of cement clinker, granulated slag, limestone flax, and gypsum (Faruquee, 2021). Figure 9 shows the essential element in producing cement.

Figure 9. Raw Material to manufacture cement

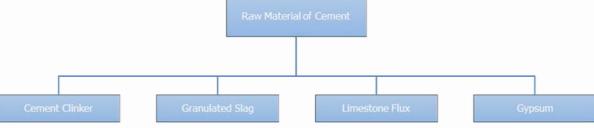


Regional Concentration

The use of cement varies according to location in our country. According to cement demand, Dhaka 45%, Rajshahi and Rangpur divisions 10%, Chittagong 23%, Sylhet 7%, Khulna 10%, and Barisal 5% are used. About three-quarters of the cement produced in Bangladesh is used in Dhaka and Chittagong divisions.

Social impacts

Cement production at the local level has both negative and positive impacts. The positive side is that the cement industry can create new business and employment opportunities for local people. Negative impacts include disturbance to the landscape, dust, and noise, and disruption to local biodiversity from quarrying limestone (the raw material for cement).



Raw Materials

Cement is mainly used for all types of construction, including housing, roads, schools, hospitals, dams, ports, patios, floors, staircases, driveways, pool decks, and items like tables, sculptures, or bookcases. The primary raw materials required in cement manufacturing include clinker, gypsum, limestone, iron slag, fly ash, and clay and soil. ECRL researched some listed cement companies and found that, on average, clinker alone takes 67% of the total raw material cost, followed by iron slag and limestone (Data Export Group, 2022).

Table 7. Raw Materials Price (BDT per MT)

1 mar mare mare (22 per m.)					
Year	Clinker	Gypsum	Fly ash	Slag	Limestone
2016	4,200	2,302	2,150	2,102	2,015
2017	4,275	2,245	2,025	2,245	2,020
2018	4,683	2,275	2,119	2,706	2,409
2019	4,978	2,571	2,411	2,575	2,304
2020	4,858	2,714	2,465	2,742	2,309
2021	5,988	3,008	2,553	3,182	2,801
2022	6,832	4,010	2,725	3,720	2,991

Source: Bangladesh Bureau of Statistics website (BBS, 2023)

Challenges: Reducing CO2 emissions is one of the significant challenges of the cement industry because the cement industry contributes 6 to 8% of global carbon emissions. The quality of raw materials, such as limestone and clay, was a concern for the cement industry.

Raw Material Supply: Cement production requires materials like clay, limestone, and gypsum. A proper supply of these materials must be ensured. Disruption in the supply of materials reduces production and increases prices.

Power Supply: The cement manufacturing process is energy-intensive, requiring a reliable and uninterrupted power supply. However, Bangladesh faces power shortages and frequent electricity disruptions, which can disrupt production schedules and increase costs due to the need for backup power generators.

Lack of Skilled Workforce: Cement production and maintenance require a skilled workforce. There is a shortage of skilled and technical workers in Bangladesh. To increase cement production, the workers should be converted into skilled workforce through education programs and training.

Conclusion

Over the years, the Bangladesh government has supported the cement industry and has implemented various measures to encourage investment and growth in this sector. The significant investments in the sector have led to increased production capacity and improved cement quality in Bangladesh. However, Bangladesh has experienced shrinking public spending, and strictness in development expenditure in Bangladesh has hit the cement sector hard with a fading demand since 2021 with the postpandemic impact and dollar crunch affecting the imports and exports. The sector improved in 2022 compared to the previous two years. The cement industry in Bangladesh is expected to continue growing in the future, driven by the increasing demand for construction materials and government support for the sector.

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Dhaka Office

Shams Rangs, House 104, Park Road Level-A1, A2 & A5 Baridhara, Dhaka-1212

+880 2222260911, Tel:

+880 2222260897

+880 2222260828

Email: info@emergingrating.com

Chattogram Office

Al Madina Tower, 6th Floor 88-89, Agrabad C/A, Chittagong

+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 +880 1833 330060

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