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# A Study of the Indian Cement Industry: A Special Reference to Adani Effect

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#### ABSTRACT

The Indian cement industry is one of the largest in the world, with a total production capacity of over 500 million tonnes per year. The industry plays a crucial role in the development of India's infrastructure, as cement is a key component of construction. The industry is dominated by a few large players, including UltraTech Cement, Shree Cement, ACC, Ambuja Cement, and Dalmia Bharat Cement, who together account for a significant market share. Industry faces several challenges, including high carbon emissions, water consumption, waste management, biodiversity, and air pollution. However, the industry is increasingly focused on sustainability and innovation, investing in new technologies and processes to reduce its environmental footprint and improve efficiency. The future of the Indian cement industry looks bright, with strong demand expected to drive growth and innovation in the sector, particularly in areas such as infrastructure development, urbanization, and affordable housing. Companies that invest in sustainability and innovation are likely to be well positioned to succeed in the years ahead.

The Adani Effect refers to the economic impact of the Adani Group, an Indian multinational conglomerate headquartered in Ahmedabad, Gujarat. the Adani Effect is a complex and multifaceted phenomenon, reflecting the varied impacts of the Adani Group's activities on the Indian economy, the environment, and society as a whole. On 16th May 2022, the legendary business tycoon Gautam Adani won the race to acquire a major stake in Ambuja Cements and ACC for \$10.5 bn. So as soon as this deal got finalized, the Adani's became the 2nd biggest cement manufacturer in India and while every single news channel told us basic details of this deal, the most important they missed is the business strategy of the Adanis!!

KEYWORDS: Cement Industry, Adani Effect, Business Strategy, Indian Market

# Introduction

The cement industry is an important sector of the world economy since it manufactures and distributes cement, a main building material used in construction projects. Cement is a fine powder comprised of limestone, clay, and other minerals that is burned to high temperatures in a kiln and crushed into a fine powder. The cement industry plays a crucial role in the construction sector, as cement is a key ingredient in the production of concrete, which is used in a wide range of construction applications, such as buildings, bridges, roads, and dams.

This is a huge and complex industry, with several players involved in the manufacturing, distribution and sale of cement. Companies compete on price, quality, and innovation in this highly competitive business. The sector also confronts a variety of issues, including growing energy prices, environmental concerns, and the need to fulfil expanding demand while being sustainable.

The Adani Group has a presence in the cement industry through its subsidiary, Adani Cement. The company operates a cement plant in Gujarat, India, with a production capacity of 10 million tons per year.

The Adani Effect in the cement industry can be seen in several ways. Firstly, the Adani Group's investment in the cement sector has contributed to the expansion and growth of the industry in India, particularly in Gujarat, where the company's cement plant is located. This has created job opportunities and economic growth in the region.

Secondly, the Adani Group's investment in the cement industry has helped to increase competition in the sector, leading to improved efficiency and productivity. This has benefited consumers by providing them with a wider choice of cement products at competitive prices. This paper further provides a clear understanding of the growing and dynamic cement industry and the paper also highlights the influence of Adani group on the sector.

# The Global Cement Industry

The cement industry is a global industry, with major producers located in many countries, such as China, India, the United States, and Germany. According to industry estimates, the worldwide cement industry produces about 4 billion metric tonnes of cement per year, with China being the greatest production and user, followed by India.

The worldwide cement business has seen tremendous consolidation in recent years, with larger corporations purchasing smaller players to increase their market share and obtain economies of scale. This trend is projected to continue in future years as corporations attempt to improve their worldwide market position. The industry is expected to expand in the coming years, driven by population growth, urbanization, and rising demand for infrastructure and housing.

#### The Indian Cement Industry

The Indian cement industry is one of the largest and fastest-growing cement industries in the world. It is the second-largest cement producer globally, after China, and contributes significantly to the country's economy.

The Indian cement industry is comprised of 183 large cement plants and more than 360 mini cement plants. The top cement producing states in India are Rajasthan, Tamil Nadu, Andhra Pradesh, and Gujarat. The industry is dominated by a few large players, such as UltraTech Cement, ACC Cement, Ambuja Cement, and Shree Cement.

The Indian cement industry has undergone significant modernization and technological advancement over the years. It has adopted state-of-the-art technologies to increase efficiency, reduce costs, and improve the quality of cement produced. The industry has also been actively involved in sustainable practices such as using alternative fuels and raw materials, energy efficiency, waste heat recovery, and reducing emissions.

The Indian government has been supportive of the cement industry, providing incentives and subsidies for modernization and expansion projects. Industry also plays a crucial role in the country's infrastructure development, contributing to the construction of roads, bridges, airports, and other public infrastructure projects.

The Indian cement industry faces challenges such as high transportation costs, volatility in raw material prices, and increasing competition from new players. However, with the government's support and the industry's focus on sustainability and modernization, it is expected to continue growing and contributing to the country's development in the coming years.

# **Evolution of Cement Industry in India**

The cement industry in India has a long and interesting history that dates back to the early 1900s. Here are some key milestones in the history of the cement industry in India:

1914: The first cement factory in India was set up by the Indian Cement Company Ltd. in Porbandar, Gujarat, with a capacity of 10,000 tons per annum.

1927: The Tata Iron and Steel Company (TISCO) set up the first cement factory in southern India in Andhra Pradesh with a capacity of 1,000 tons per day.

1939: The Cement Marketing Company of India (CMI) was established to promote the sale and distribution of cement across India.

1956: The government of India established the Cement Corporation of India (CCI) to take control of the cement industry and promote the development of the sector.

1982: The government of India enacted the Cement Control Order, which regulated the production, distribution, and pricing of cement in the country.

1991: The Indian government began to liberalize the economy, allowing private companies to enter the cement industry.

1993: The government of India decontrolled the cement industry, removing price controls and allowing companies to set their own prices.

2000s: The cement industry in India experienced a period of rapid growth, with several new companies entering the market and existing companies expanding their capacity.

Today, the cement industry in India is one of the largest in the world, with a capacity of over 500 million tons per annum. The industry continues to grow and evolve, with companies investing in new technologies and processes to improve efficiency and sustainability.

# **The Cement Production**

The raw materials used in the production of cement are primarily limestone, clay, shale, and sand. The exact composition of these raw materials can vary depending on the specific type of cement being produced.

Limestone is the primary raw material used in the production of cement. It is a sedimentary rock that is primarily composed of calcium carbonate (CaCO3) and can be found in abundance in many parts of the world. Limestone is usually extracted from quarries or mines and then crushed into small pieces.

Clay and shale are the other main raw materials used in cement production. They are both sedimentary rocks that contain aluminum and silica compounds. These materials are typically extracted from quarries or mines and then crushed and ground into a fine powder.

Sand or other forms of silica are also sometimes used as a raw material in cement production, particularly for specialty cements such as those used in the oil and gas industry.

In addition to these primary raw materials, other materials such as iron ore, bauxite, and fly ash may be added to the mix to give the cement certain desired properties such as increased strength or durability. These materials are typically added in small quantities and are known as "additives."

Cement is a binding material used in construction that is made by mixing together different raw materials, such as limestone, clay, and gypsum, in specific proportions and heating them at high temperatures. The process of making cement involves several steps, which are as follows:

Quarrying: The first step in the manufacturing of cement is to obtain the raw materials from the quarry, which is a large, deep pit or excavation where limestone, clay, and other materials are extracted.

**Crushing and Grinding:** The raw materials obtained from the quarry are crushed and ground into a fine powder. The crushing and grinding process helps to increase the surface area of the raw materials, which makes it easier for them to react with each other during the heating process.

**Blending:** The crushed and ground raw materials are then mixed together in specific proportions to form a homogenous mixture. The proportion of each material varies depending on the type of cement being produced.

Preheating: The homogenous mixture of raw materials is then preheated in a preheater tower to remove any moisture and prepare it for the next step.

**Kiln:** The preheated mixture is then fed into a kiln, which is a large, cylindrical, rotating furnace. Inside the kiln, the mixture is heated to temperatures of around 1450°C, causing a series of chemical reactions to take place. These reactions result in the formation of clinker, which is a hard, nodular material.

**Cooling:** The clinker is then cooled in a cooler before being ground into a fine powder. The cooling process helps to prevent the clinker from setting prematurely and makes it easier to grind.

Grinding: The clinker is ground into a fine powder along with a small amount of gypsum to control the setting time of the cement.

Storage and Distribution: The finished cement powder is then stored in silos before being transported to customers for use in construction.

Overall, the process of making cement is a complex one that requires careful attention to detail and quality control to ensure that the final product meets the desired specifications.

#### **The Cement Factory**

Setting up a cement factory in India requires complying with various legal and regulatory requirements. Some of the key requirements to set up a cement factory in India are:

Land: Adequate land must be identified and acquired for the cement factory. The land should be suitable for the construction of the factory and have access to utilities such as water and electricity.

Environmental clearance: An environmental impact assessment (EIA) study must be conducted and submitted to the Ministry of Environment and Forests (MoEF) to obtain environmental clearance. The EIA study should assess the potential impact of the cement factory on the environment and propose mitigation measures.

Licenses and permits: Various licenses and permits must be obtained from the relevant authorities, such as the State Pollution Control Board (SPCB), the Central Pollution Control Board (CPCB), and the Ministry of Labour and Employment. These licenses and permits are necessary to ensure compliance with various regulations related to pollution control, labour laws, and safety standards.

Finance: Adequate funds must be arranged for the construction of the cement factory. This may involve raising capital from investors, banks, or financial institutions.

Technology and equipment: The cement factory must be equipped with the latest technology and equipment to ensure efficient and cost-effective production. The technology and equipment used should be in compliance with relevant industry standards and regulations.

Manpower: Adequate manpower must be hired for the operation of the cement factory. This may involve hiring skilled and unskilled workers, as well as managerial and administrative staff.

#### **Major Cement Players**

The Indian cement industry has several major players and numerous smaller players. The industry is dominated by a few large companies that have a significant market share, such as:

UltraTech Cement: It is the largest cement company in India and a subsidiary of the Aditya Birla Group. It has a presence in five countries and operates 22 cement plants in India.

Shree Cement: It is the second-largest cement company in India in terms of market capitalization and a leading player in North India. It operates 10 cement plants in India.

Ambuja Cement: It is part of the global cement company Lafarge Holcim and has a significant market presence in Western and Northern India. It operates 11 cement plants in India.

ACC Cement: It is part of the global cement company Lafarge Holcim and has a significant market presence in Eastern and Central India. It operates 17 cement plants in India.

Other notable players in the Indian cement industry include Dalmia Bharat Cement, JK Cement, India Cements, Ramco Cement, and Birla Corporation.

The Indian cement industry also has numerous smaller players, mainly concentrated in the regional markets, which cater to the local demand for cement. However, due to the increased competition and consolidation in the industry, many of these smaller players are finding it challenging to survive.

There are numerous cement plants located in India. Here are some of the major cement plants in India:

UltraTech Cement: It has 20 integrated plants, 1 clinkerisation plant, 26 grinding units, and 7 bulk terminals.

Ambuja Cements: It has 5 integrated plants, 8 cement grinding units, and a bulk terminal.

ACC Limited: It has 17 cement plants, 50+ ready-mix concrete plants, and a network of sales offices and dealers across India.

Shree Cement: It has 6 integrated plants, 1 clinkerisation plant, and 27 grinding units.

Dalmia Cement: It has 13 cement plants and a network of over 2,500 dealers and retailers.

JK Cement: It has 7 integrated plants and 2 grinding units.

India Cements: It has 8 integrated plants and 2 grinding units.

Birla Corporation Limited: It has 7 cement plants and a capacity of 15.5 MTPA.

The Ramco Cements Limited: It has 5 cement plants and a grinding unit.

Orient Cement: It has 3 cement plants and a grinding unit.

These are just some of the major cement plants in India. There are many other cement plants located across the country, which are operated by various companies.

#### Market Share

The Indian cement industry is dominated by a few large players who hold a significant market share. According to the Cement Manufacturers Association of India (CMA), the top 10 cement companies in India accounted for around 70% of the total installed capacity in the industry in 2020.

As of 2020, the market share of the top cement companies in India is as follows:

UltraTech Cement – 22%	Ramco Cement – 6%
Shree Cement – 13%	India Cement – 5%
Ambuja Cement – 13%	JK Cement – 5%
ACC Cement – 9%	Birla Corporation – 4%
Dalmia Bharat Cement – 6%	Orient Cement – 3%

The remaining 14% is held by numerous smaller cement companies operating in the regional markets. It is important to note that the market share of cement companies in India can vary depending on several factors, such as the region, demand-supply dynamics, pricing strategies, and government policies. However, the top cement companies mentioned above are expected to continue dominating the market in the coming years, owing to their strong brand image, operational efficiency, and focus on sustainable practices.

# **Company Profile of the Cement Players in Indian Cement Industry**

Ultratech Cement: UltraTech Cement is the largest cement company in India and a subsidiary of the Aditya Birla Group. The company was founded in 1983 and has its headquarters in Mumbai, India.

UltraTech Cement has a strong presence in the Indian cement industry, with a total installed capacity of 114.8 million tonnes per annum (MTPA) as of March 2021. The company operates 22 cement plants in India and has a presence in five other countries, including the UAE, Bahrain, Bangladesh, Sri Lanka, and Kuwait.

The company offers a wide range of cement products, including Ordinary Portland Cement (OPC), Portland Pozzolana Cement (PPC), Portland Slag Cement (PSC), white cement, and ready-mix concrete (RMC).

UltraTech Cement has been actively involved in sustainable practices and has implemented several initiatives to reduce its carbon footprint, such as using alternative fuels and raw materials, energy efficiency, waste heat recovery, and reducing emissions.

In addition to its cement business, UltraTech Cement also operates a range of businesses, including building materials, chemical fertilizers, textiles, and financial services.

Overall, UltraTech Cement is a leading player in the Indian cement industry and has a strong brand image, operational efficiency, and focus on sustainability, which are expected to help it maintain its market position in the coming years.

Shree Cement: Shree Cement is one of the leading cement manufacturers in India, with a significant presence in the Northern and Eastern regions of the country. The company was founded in 1979 and has its headquarters in Kolkata, India.

Shree Cement has a total installed capacity of 43.4 million tonnes per annum (MTPA) as of March 2021 and operates 10 cement plants in India. The company offers a wide range of cement products, including Ordinary Portland Cement (OPC), Portland Pozzolana Cement (PPC), and Portland Slag Cement (PSC).

The company has been recognized for its sustainable practices and has implemented several initiatives to reduce its carbon footprint, such as using alternative fuels and raw materials, energy efficiency, and waste heat recovery.

Shree Cement is known for its strong financial performance and operational efficiency, which have helped it maintain its market position in the highly competitive Indian cement industry. The company has also been actively expanding its business through acquisitions and investments in new plants and technology.

In addition to its cement business, Shree Cement also operates power generation facilities, and it has a subsidiary that is involved in the production of industrial gases.

Overall, Shree Cement is a well-established player in the Indian cement industry, known for its focus on sustainability, operational efficiency, and expansion strategy, which are expected to help it continue its growth trajectory in the coming years.

Ambuja Cement: Ambuja Cement is a leading cement manufacturer in India and is part of the global cement company Lafarge Holcim. The company was founded in 1983 and has its headquarters in Mumbai, India.

Ambuja Cement has a strong presence in Western and Northern India, with a total installed capacity of 29.65 million tonnes per annum (MTPA) as of March 2021. The company operates 11 cement plants in India and has a significant market share in the states of Gujarat, Rajasthan, and Punjab.

The company offers a wide range of cement products, including Ordinary Portland Cement (OPC), Portland Pozzolana Cement (PPC), and Ready-Mix Concrete (RMC).

Ambuja Cement has been recognized for its sustainable practices and has implemented several initiatives to reduce its carbon footprint, such as using alternative fuels and raw materials, energy efficiency, and waste heat recovery.

In addition to its cement business, Ambuja Cement also operates a range of businesses, including building materials, engineering services, and real estate development.

Overall, Ambuja Cement is a well-established player in the Indian cement industry, known for its focus on sustainability, strong brand image, and operational efficiency. The company's strong market presence in Western and Northern India, coupled with its diversified businesses, is expected to help it maintain its market position in the coming years.

ACC Cement: ACC Cement is one of the leading cement manufacturers in India and a subsidiary of the global cement company Lafarge Holcim. The company was founded in 1936 and has its headquarters in Mumbai, India.

ACC Cement has a strong presence in India, with a total installed capacity of 39.8 million tonnes per annum (MTPA) as of March 2021. The company operates 17 cement plants in India and has a significant market share in the states of Andhra Pradesh, Telangana, Maharashtra, and Gujarat.

The company offers a wide range of cement products, including Ordinary Portland Cement (OPC), Portland Pozzolana Cement (PPC), and Portland Slag Cement (PSC). In addition to cement, ACC also produces ready-mix concrete and other building materials.

ACC Cement has been recognized for its sustainable practices and has implemented several initiatives to reduce its carbon footprint, such as using alternative fuels and raw materials, energy efficiency, and waste heat recovery.

In addition to its cement business, ACC Cement also operates a range of businesses, including engineering services, information technology, and logistics.

Overall, ACC Cement is a well-established player in the Indian cement industry, known for its focus on sustainability, operational efficiency, and diversified businesses. The company's strong market presence in several key states of India is expected to help it maintain its market position in the coming years.

**Dalmia Bharat Cement:** Dalmia Bharat Cement is a leading cement manufacturer in India, with a strong presence in the Southern and Eastern regions of the country. The company was founded in 1939 and has its headquarters in New Delhi, India.

Dalmia Bharat Cement has a total installed capacity of 37.9 million tonnes per annum (MTPA) as of March 2021 and operates 14 cement plants in India. The company offers a wide range of cement products, including Ordinary Portland Cement (OPC), Portland Pozzolana Cement (PPC), and Portland Slag Cement (PSC).

The company has been recognized for its sustainable practices and has implemented several initiatives to reduce its carbon footprint, such as using alternative fuels and raw materials, energy efficiency, and waste heat recovery.

Dalmia Bharat Cement has also been actively expanding its business through acquisitions and investments in new plants and technology. In 2019, the company acquired the cement business of Kalyanpur Cement, which helped it expand its presence in the Eastern region of India.

In addition to its cement business, Dalmia Bharat Cement is also involved in the production of sugar, thermal power generation, and refractory products.

Overall, Dalmia Bharat Cement is a well-established player in the Indian cement industry, known for its focus on sustainability, operational efficiency, and expansion strategy, which are expected to help it continue its growth trajectory in the coming years.

The RAMCO Cement: The Ramco Cements Limited, commonly known as Ramco Cement, is a leading cement manufacturer in India, with a significant presence in Southern and Eastern India. The company was founded in 1957 and has its headquarters in Chennai, India.

Ramco Cement has a total installed capacity of 23.8 million tonnes per annum (MTPA) as of March 2021 and operates 12 cement plants in India. The company offers a wide range of cement products, including Ordinary Portland Cement (OPC), Portland Pozzolana Cement (PPC), and Portland Slag Cement (PSC).

The company has been recognized for its sustainable practices and has implemented several initiatives to reduce its carbon footprint, such as using alternative fuels and raw materials, energy efficiency, and waste heat recovery.

Ramco Cement has also been investing in new technology and expanding its business through acquisitions and investments in new plants. In 2019, the company acquired a cement grinding unit from MCL at Odisha, which helped it expand its presence in Eastern India.

In addition to its cement business, Ramco Cement also has interests in wind power generation and real estate development.

Overall, Ramco Cement is a well-established player in the Indian cement industry, known for its focus on sustainability, operational efficiency, and expansion strategy, which are expected to help it continue its growth trajectory in the coming years.

India Cement Limited: India Cements Limited is one of the leading cement manufacturers in India, with a strong presence in Southern India. The company was founded in 1946 and has its headquarters in Chennai, India.

India Cements has a total installed capacity of 16.5 million tonnes per annum (MTPA) as of March 2021 and operates eight cement plants in India. The company offers a wide range of cement products, including Ordinary Portland Cement (OPC), Portland Pozzolana Cement (PPC), and Portland Slag Cement (PSC).

The company has been recognized for its sustainable practices and has implemented several initiatives to reduce its carbon footprint, such as using alternative fuels and raw materials, energy efficiency, and waste heat recovery.

India Cements has also been expanding its business through acquisitions and investments in new plants. In 2020, the company acquired the cement assets of Murli Industries Ltd in Maharashtra, which helped it expand its presence in Western India.

In addition to its cement business, India Cements also has interests in sugar, ready-mix concrete, and other construction materials.

# **Challenges Faced in Indian Cement Industry**

The Indian cement industry is facing several challenges that are impacting its growth and profitability. Some of the key problems facing the Indian cement industry are:

**Overcapacity:** The Indian cement industry is currently facing an overcapacity issue due to the addition of new capacity in recent years. The excess capacity has led to increased competition, pricing pressures, and lower profitability for cement manufacturers.

**Rising input costs:** The cost of raw materials, such as limestone and coal, has been increasing, which is putting pressure on cement manufacturers' margins. This is compounded by the fact that the cement industry is an energy-intensive industry, and the cost of power and fuel is also increasing.

Logistics and transportation: The cement industry is highly dependent on efficient logistics and transportation infrastructure, and the inadequate infrastructure in India is impacting the industry's growth. The lack of proper transportation facilities, such as ports and railways, has led to higher transportation costs and delays in delivery, impacting the industry's profitability.

**Environmental concerns:** The cement industry is a significant contributor to greenhouse gas emissions and air pollution. The increasing environmental concerns are leading to regulatory pressures and compliance costs for cement manufacturers.

**Slowdown in construction activity:** The slowdown in construction activity in India due to economic and political factors has impacted the demand for cement. This has led to a decline in sales and profitability for cement manufacturers.

Overall, these challenges are impacting the Indian cement industry's growth and profitability, and cement manufacturers need to adopt innovative strategies to overcome these challenges and remain competitive.

#### **Environmental Challenges**

The cement industry is one of the largest emitters of greenhouse gases, which contributes to climate change. The production of cement requires large amounts of energy and raw materials, such as limestone and clay, which leads to high levels of carbon emissions. Here are some environmental challenges facing the cement industry:

Carbon emissions: The cement industry is responsible for around 7% of global carbon emissions. The industry needs to reduce its carbon emissions to mitigate the impact of climate change.

Water consumption: Cement production requires large amounts of water for cooling and processing. In many parts of the world, water is a scarce resource, and the cement industry needs to find ways to reduce its water consumption.

Waste management: Cement production generates a significant amount of waste, such as dust, ash, and sludge. Industry needs to find ways to manage this waste effectively and minimize its impact on the environment.

**Biodiversity:** Cement production can have a negative impact on biodiversity, as it requires large areas of land and can disrupt natural ecosystems. Industry needs to find ways to minimize its impact on biodiversity and protect natural habitats.

Air pollution: Cement production can lead to air pollution, as it generates dust and other particulate matter. The industry needs to find ways to minimize its impact on air quality and protect public health.

To address these environmental challenges, the cement industry is increasingly focusing on sustainability and innovation. Companies are investing in new technologies and processes to reduce their environmental footprint and improve efficiency. Some examples include using alternative fuels and raw materials, such as biomass and waste materials, to reduce carbon emissions, and investing in renewable energy sources, such as solar and wind power, to reduce energy consumption. Additionally, companies are adopting circular economy principles, such as recycling waste materials and reducing waste generation, to minimize their impact on the environment.

#### Mergers and Acquisitions

The Indian cement industry has witnessed several mergers and acquisitions in recent years. Some of the major mergers and acquisitions in the Indian cement industry are:

UltraTech Cement - Binani Cement: In 2018, UltraTech Cement acquired Binani Cement, which had a capacity of 6.25 million tonnes per annum, for Rs. 7,950 crore. The acquisition increased UltraTech Cement's capacity to 116.75 million tonnes per annum.

**Dalmia Bharat Cement - Kalyanpur Cement:** In 2018, Dalmia Bharat Cement acquired the assets of Kalyanpur Cement, which had a capacity of 1 million tonnes per annum, for Rs. 110 crore. The acquisition increased Dalmia Bharat Cement's capacity to 25 million tonnes per annum.

Nirma - Lafarge India: In 2016, Nirma acquired the Indian assets of LafargeHolcim, including Lafarge India, which had a capacity of 11 million tonnes per annum, for \$1.4 billion. The acquisition increased Nirma's capacity to 13.5 million tonnes per annum.

UltraTech Cement - Jaypee Group: In 2017, UltraTech Cement acquired the cement assets of Jaypee Group, including 21.2 million tonnes per annum cement plants in five states, for Rs. 16,189 crore. The acquisition increased UltraTech Cement's capacity to 93 million tonnes per annum.

Heidelberg Cement - Italcementi: In 2016, HeidelbergCement acquired Italcementi, which had a presence in India through Zuari Cement, for \$4.2 billion. The acquisition increased Heidelberg Cement's capacity to 60 million tonnes per annum.

These mergers and acquisitions have led to consolidation in the Indian cement industry, with the leading players increasing their market share and capacity. Moreover, such mergers and acquisitions have also helped cement manufacturers expand their geographical presence and tap into new markets, leading to improved efficiencies and profitability.

#### Adani Group

Adani Group, which is primarily known for its operations in the energy, ports, and logistics sectors, has recently ventured into the cement business. In January 2020, Adani Group announced its entry into the cement sector with the incorporation of Adani Cementation Limited (ACL).

Adani Cementation Limited has set up a greenfield cement grinding unit with a capacity of 1.5 million tonnes per annum in Mundra, Gujarat. The plant is expected to start commercial operations by the end of 2021. Adani Cementation Limited has also received clearance from the Ministry of Environment, Forest and Climate Change for a 5 million tonnes per annum cement plant and a 60 MW thermal power plant in Maharashtra.

Adani Group's entry into the cement sector is seen as a strategic move to diversify its business portfolio and tap into the growing demand for cement in India. The cement industry in India is expected to grow at a CAGR of around 8% during 2021-2026, driven by increasing infrastructure development and construction activities.

Adani Group's entry into the cement business is likely to increase competition in the industry, which is already highly competitive, and cement manufacturers will need to adopt innovative strategies to remain competitive. However, Adani Group's strong financial resources and experience in project execution may give it an advantage in the industry.

#### Adani Acquisition of Two Major Cement giants

The cement industry in India has seen consolidation in recent times, with Swiss cement major Holcim exiting India and the Adani Group becoming the second- largest cement maker in the country. The Adani Group acquired two well-known companies, Ambuja Cement and ACC, from Holcim in a \$10.5-billion deal. Holcim had a tight leash on quality, and did not expand capacity or acquire any of the companies that came on the block through the Insolvency and Bankruptcy Code. This could explain why Holcim did not find the India market attractive enough to stay on. Gautam Adani, Chairman of the Adani Group, has announced the acquisition of Ambuja and ACC from Holcim for \$10.5 billion.

The transaction values Ambuja at an enterprise value per tonne (a standard metric used in the cement industry) of \$178, while it is \$127 for ACC. The Adani Group will acquire Holcim's 63.11 per cent stake in Ambuja Cement and 4.48 per cent in ACC, apart from the 50.5 per cent indirect holding in ACC. The acquisition gives the buyer an immediate and strong foothold in India, with the north and east contributing 50 per cent of its capacity. The deal is unlikely to face any hurdles from competition watchdog, the Competition Commission of India. Responding to a query from Business Today on a media call, the company's global CEO, Jen Jensich, hinted that the company had been conservative in India. The race to acquire Holcim's businesses in India saw two other global steel majors in the fray.

The Adani Group, however, managed to fend off competition and acquire the India businesses of Holcim, catapulting itself to the No. 2 spot on the pecking order of cement manufacturers in the country. According to Periwal, consolidation has been the buzzword in the Indian cement industry and this transaction further strengthens that. Holcim had been less aggressive in capacity additions and its exit marks the exit of a large overseas player, leading one to believe that India is a terrain they are not too comfortable with. Home-grown companies continue to look for ways to increase capacity and capture a generous slice of the infrastructure pie. With the government's infrastructure push, things will only get more interesting from this point.

#### ACC and Ambuja Cement Deal

- Largest acquisition in India's Infrastructure and Materials space valued at USD 6.50 billion
- Post the transaction, Adani will hold 63.15% in Ambuja Cements and 56.69% in ACC (of which 50.05% is held through Ambuja Cements)
- The combined market capitalization of Ambuja Cements and ACC is USD 19 billion as on date
- With this acquisition, Adani is now India's second largest cementmanufacturer (capacity 67.5 MTPA)
- Enhanced corporate governance with 100% independent directors on Audit Committee and Nomination & Remuneration Committee
- Two new Board committees Corporate Responsibility Committee and Public Consumer Committee comprising solely of independent directors, will drive ESG assurance and a consumer–first approach.

#### **Government Initiatives**

The government of India has taken several initiatives to promote the growth and development of the cement industry in the country. Here are some key government initiatives for the cement industry in India:

National Cement Policy: In 2002, the government of India introduced the National Cement Policy to promote the development of the cement industry and ensure sustainable growth. The policy aims to increase the production capacity of the cement industry, improve efficiency and productivity, and promote the use of alternative fuels and raw materials.

**Infrastructure development:** The government of India has initiated several large-scale infrastructure projects, such as highways, airports, and railways, which require large quantities of cement. This has created a strong demand for cement and provided a boost to the cement industry.

Housing for All: The government's "Housing for All" initiative aims to provide affordable housing to all citizens by 2022. This initiative has created a strong demand for cement, as cement is a key component of construction.

Make in India: The government's "Make in India" initiative aims to promote domestic manufacturing and attract foreign investment. The cement industry is a key focus area of this initiative, and the government has taken several steps to promote investment in the sector.

Export promotion: The government of India has taken several measures to promote the export of cement, such as providing incentives to exporters and simplifying export procedures.

Ease of doing business: The government of India has taken several steps to improve the ease of doing business in the country, such as simplifying regulatory procedures and reducing bureaucracy. This has made it easier for companies to set up and operate cement plants in India.

These government initiatives have helped to create a favorable environment for the cement industry in India and promote its growth and development.

#### **Future Prospects**

The cement industry in India has a bright future, with several factors driving its growth and development. Here are some key factors that are likely to shape the future of the cement industry in India:

**Infrastructure development:** India is expected to invest heavily in infrastructure development over the next decade, with large-scale projects planned in areas such as highways, railways, airports, and urban development. This is likely to create a strong demand for cement, driving the growth of the industry.

Urbanization: India is undergoing rapid urbanization, with a growing population moving into cities and towns. This is creating a strong demand for housing and infrastructure, which in turn is driving the demand for cement.

Housing for All: The government's "Housing for All" initiative aims to provide affordable housing to all citizens by 2022. This initiative is likely to create a strong demand for cement, as cement is a key component of construction.

Green initiatives: The cement industry is increasingly focused on sustainability and environmental protection. Companies are investing in new technologies and processes to reduce emissions and improve energy efficiency, which is likely to make the industry more sustainable and attractive to customers.

**Increasing use of alternative fuels and raw materials:** The cement industry is increasingly using alternative fuels and raw materials, such as biomass, waste materials, and fly ash, to reduce its environmental footprint and improve efficiency. This trend is likely to continue in the future, as companies seek to improve their sustainability and reduce costs.

# Conclusion

The Adani Group has faced criticism and controversy in relation to its cement operations, particularly with regard to environmental and social issues. Critics have raised concerns about the impact of the Adani Group's cement plant on the environment, including air and water pollution. There have also been concerns raised about the displacement of local communities and the impact on their livelihoods.

Overall, the Adani Effect in the cement industry is a complex issue that reflects the varied impacts of the Adani Group's activities on the industry, the environment, and society as a whole. While the company's investment in the industry has contributed to its growth and expansion, it is important to ensure that this is done in a sustainable and socially responsible manner.

Overall, the future of the cement industry in India looks bright, with strong demand expected to drive growth and innovation in the sector. Companies that invest in new technologies and processes to improve efficiency and sustainability are likely to be well positioned to succeed in the years ahead.

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