PROFILE OF THE INDUSTRY

An industry is defined as a group of firms that produces a homogenous product. Bain defines industry as a group of sellers or of close substitute outputs which supply a common group of buyers. This means that firms, which produce, substitute goods for a group of buyers are recognized to be in an industry. In practice, a firm may produce goods or services, which would belong to different product and market groups. Moreover, substitute goods need not always come from the same industry. In empirical analysis, industry is defined depending upon the purpose of study. In this study, the focus is made on competitive forces operating in the cement industry and how market structure has changed over the years. Since the analysis is at industry level, the selected companies producing cement are considered.

A market is conventionally defined as a closely interrelated group of sellers and buyers. Market structure, for practical purposes, means those characteristics of organization of a market that seem to exercise a strategic influence on the nature of competition and pricing within the market.

The cement industry has reached a stage where cement companies are creating new values to influence customers. Segmented selling, packaging innovations and value additions are becoming the tools to woo customers. In a market that is highly competitive, selling ideas will ensure higher volumes and higher premiums. With that, only companies that adopt newer selling ideas will be able to beat the clutter.

Cement is the preferred building material in India. It is used extensively in household and industrial construction. Earlier, Government sector used to consume over
50 per cent of the total cement sold in India, but in the last decade, its share has come down to 35 per cent. Rural areas consume less than 23 per cent of the total cement. Availability of cheaper building materials for non-permanent structures affects the rural demand.

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counterpart of the modern concrete. The cement has thus from the very early era contributed to the advancement of the civilization in great measure.

When one speaks of cement today it invariably refers to Portland cement only. Portland cement has its origin in England but until 19th century, a mixture of limestone with pozzolana, a type of volcanic earth was known as cement. The significance of clay in conjunction with limestone in the manufacture of cement was first realized by Seaton. But it was Joseph Aspdin who in 1824 came out with first sample of cement. Being an improvement in the modes of producing artificial stone and it came to bear the name Portland Cement for it bore much resemblance when hardened in colour and texture to a famous building stone quarried on the Portland in the English Channel. It was during the latter part of the 19th century that many countries adopted this process of cement manufacture; many decades after Aspdin in England took the first patent. The first cement factory was established around 1890 in both Canada and Australia, while it was found in 1884 in New Zealand. However, in India it came to be established only during the beginning of the present century.

Mini Cement plants play a vital role in social economic development. In India, sizeable deposits of limestone, which is the main raw material required for the production of cement are spread over the country. In those places where there are limited qualities and limited quantities of limestone available, and it is not possible to set up large plants, so the Government had decided to start mini plants.

India under the foreign rule was industrially backward though raw materials were available in plenty in different parts of the country. Britain’s policy towards India was
dominated by Free Trade and laissez faire. Government’s fiscal and industrial policies were based primarily on revenue consideration, without any regard to country’s industrial development. Rather the ‘free import policy’ made the survival of existing industrial concern very hazardous. Besides the discouraging attitudes of the government towards industrialization, the lack of pioneering spirit and capital among Indians coupled with fear of foreign competition were responsible for industrial backwardness in the country. Thus the economic and political circumstances were to a considerable extent detrimental during the period prior to the year 1914, when India entered its cements era.

Cement, as a building material has been known in one form or another since the time of ancient Sind Civilization at Mohenjo-Daro in India. Though it has a legendary history of its use in India its manufacture is relatively of recent origin. In India the cement era commenced in fact with the establishment of a small cement factory at Washermanpet in Madras in 1904, by South India Industrial Ltd., a company that dates back to 1879. The potential capacity of this plant was only 10,000 metric tones per annum. Indians owned most of the entire capital of Rs.9.00 lakhs. This was the first attempt of manufacturing Portland cement with the calcareous seashells as principal raw materials. There was sufficient demand for the product, but because of technological defects and inadequate supply of raw materials, this plant did not operate economically and ultimately collapsed.

Then the real foundation stone of the present industry was laid in the year 1912 when a small factory was established at Porbandar in Kathiawar, by the rate of about 100 metric tonnes per day. This company adopted “dry process” in stationary intermittent operation on vertical kilns, which were changed to continuous rotary kilns subsequently.
This plant had easy access to limestone quarries of Porbandar. It was situated only 300 and 1,500 miles away from Bombay port and Bengal coalfields. The authorized capital was Rs.60 lakhs and paid-up capital during the first year of its operation stood around Rs.7 lakhs and increased to Rs.20 lakhs by 1920. Karachi, Gujarat, Bombay and Madras were its principal marketing centers. It produced only one type of cement designed by British standard committee as “artificial Portland cement”. Though the company was started entirely with the help of private capital, State assistance in some form or other was forthcoming to some extent.

The establishment of the first cement plant at Porbandar proved to be financial success and attracted prospective investments. Imports of cement declined because of I World War and Indian cement proved to be cheaper than the imported cement. During the initial years of the war, the price paid by the government ranged from Rs. 43 Rs. 70 per tonne. While price quoted for imported cement ranged from Rs. 80 to Rs. 200 per tonne. Thus the increase in demand for domestic cement, consequent upon the reduction in supply from abroad, availability of Indian capital, cheaper labour, special Government concession and increased use of cement were largely responsible for the ultimate success of this venture. This initial attempt could cause the establishment of two more factories one at Katni in Madhya Pradesh, another at Lakheri in Rajasthan by Katni Cement Ltd., and Bundni Portland Cement Ltd., respectively. Both these factories started their production respectively in January 1915 and December 1916. Both the factories had no problem of disposing their products, though they were not located nearer to the port-towns. The advent of the 1st World war gave a fillip to this industry and the output of the plans was taken under government controls. The total increases from 18,199 (1915) to
47,911-917 and to 92,718 metric tonnes in 1920. The Government controls were lifted immediately after the war and the boom period of the industry started. On the contrary the conditions changed with the arrival of foreign cement at the port markets. These factories found difficult to step into these main marketing centers’. However, the demand for cement increased very steadily as the cement was used not only for housing but also for dams, road, bridges and other development activities. Thus the promising markets results in higher profitability which eventually, led to the establishment of six more plants with a total licensed capacity of 392180 metric tonnes.

In 1924 total capacity of the industry was only 559.80 thousand tones against which the production was only 27,926 thousand tones. This increase in the indigenous capacity did not lead to reduction of imports, however, the expansion accompanied by a sudden resumption of imports created a glut in the market. Problem of disposal of the product became a very serious problem of the industry. This resulted in a rate-war which was so fierce among the domestic companies that it reduced the prices to such an extent, it actually fell below the production cost. Consequent upon the heavy losses, three factories were closed. The plight was due to foreign competition and rate-war and location disadvantages with regard to market and raw materials.

Though it is difficult to ascertain the degree of cost disadvantage of Indian cement manufacturing, it can be said that European counterparts had absolute cost advantage. The main fuel item coal was qualitatively poor in India compared to that of Europe. Coal was more expensive on account of large railway freight and high pits-mouth cost. In addition to this, due to wagon shortage, there was not adequate supply of coal at proper time which involved huge cost of holding inventories. Moreover, the freight from the
plants to port-towns in India was higher than the sea-freight from England to Indian ports. So only in the interior places the cost per unit of home product was comparable to that of imported one. It was quite often observed that these domestic entrepreneurs were rather hasty and over-optimistic and even short-sighted, for no factory was located within 350 miles of Calcutta and 250 miles of Bombay till 1925. As the cost of internal transport was very high, these centers depended entirely on import. Most of the new factories were within the geographical marketing area of the old ones and the external competition led to an insensate scramble for business at any price. The industry then was in distress. The industry where development was very rapid and full of promises two years back was in total disarray. At this juncture, a number of applications for protection were made to the government by a number of companies. And the government had to intervene by referring the working of the industry to the Tariff Board. The Tariff Board recommended protection of the indigenous industry against the dumping of imported cement at uneconomic prices.

In order to help the industry to overcome this difficulty certain proposals were put forward for raising the customs duty from 15 per cent to 41 so that foreign cement may be excluded from the Indian Market resulting in substantial rise in domestic output of cement and an attractive profit margin. It was opined that it would ultimately ensure a definite and substantial relief to the industry. The claim was based on the fact that though the Indian cement was maintaining a good standard there prevail special preference for European cement and this was certainly a special difficulty of a temporary kind. Thus the industry contended that under such a condition the temporary protection
could give a strong footing to the industry by ensuring adequate demand, fuller utilization of installed capacity and ultimately helping them to minimize the cost of production.

The major inputs for the cement industry are limestone, coal power and transport. Approximately 1.5 tonnes of limestone are required for making one tone of cement. Cement grade limestone should normally have a minimum of 44 per cent of coal (Calcium Oxide) content. India is endowed with sufficient limestone deposits. However, cement grade deposits totaling about 90.00 MT are not spread evenly in the country.

Cement industry in India has come a long way since the first unit to manufacture cement was established in 1914. During 2nd World War, that is 1944, cement was included in essential products and was covered under price and distribution controls. These controls continued even in post-independence era. Further, the controls went on increasing in the form of insistence on uniform price, freight equalization through a pool account, three tier pricing system, and excise differentiation, between new and old units and so on. The process continued till February 1982, when the Government, partially decontrolled the industry. After 1982, the Government started fixing levy cement quota in advance and allowing manufacturers to sell it and the balance in the free market. The levy cement quota changed year to year which kept manufacturers always in uncertainty. However in 1989, government fully decontrolled the industry and since then cement industry is on its own.

The cement industry is facing the vagaries and variation of coal quality. Although India is endowed with sufficient reserves of coal, its deteriorating and inconsistent quality has become a constraint for improving productivity and clinker quality. Thus it is
necessary for the coal industry to adopt measures in respect of improvements and care in mining techniques as well as resorting to coal beneficiation so as to minimize extraneous material and ensure consistency in the quality of coal supply.

The cement industry occupies a position of predominance not only as one of the basic infrastructure industries for development, but also because it is the 8th largest in the world, which directly employs about one lakh persons. It constitutes an important segment of the modern industrial economy of India. No other industry of equal standing plays such an important and vital role in the economic life of an economy. There are several factors that contribute to the uniqueness of the industry, the chief of them being the utility of the value of the product manufactured i.e., cement.

Cement, the wonder material for binding stones and bricks together, has contributed to the development of modern civilization in a number of ways, for which it is known as the builder of modern civilization. It ranks next to steel as a construction material. Today it is a grayish powder-limestone as the basic material, mixed clay, calcite to clinker; gypsum added ground to a powder called cement. It has become the basis of all modern construction. The use properties of cement are more, as the number of purposes for which it is being demanded rapidly increases.

**Boom-and-Bust**

The boom-and-bust syndrome normally characterizes a typical cyclical industry. A huge potential market and rapid growth in the early stages lead to a surge in interest and a flurry of research. The projected growth rates point to a lucrative market. The buoyant markets and huge profits raked in by players tempt more players into the market.
Capacities increase, prices fall and margins come under pressure. Capacity addition comes to a halt; weaker players shut or sell off to larger ones. Demand catches up and the cycle is repeated all over again. Perhaps, of all the cyclical industries, the Indian cement industry exhibits this boom-and-bust cycle most visibly.

**Temptation**

A huge potential market, easy availability of raw material and cheap labour may lead to a flurry of activity and a surge in interest. The easiest way to estimate the potential that exists is the per capita consumption of cement, which is abysmally low in India at 85 kilograms as against a world average of 256 kilograms and the Asian average of 200 kilograms. Although the growth of the industry depends more on the level of consumer spending rather than on the per capita consumption, nevertheless, it serves as an easy benchmark to potential that exists.

**Consumption and Demand**

The projected growth rates in demand (based on the potential per capita consumption growth or other demand drivers like the expected GDP growth rate) fuels stock market rallies. Consider the boom in cement stocks in 1994, every cement company was attracting valuations it never dreamt about. Scarcity induced by lower capacities and to a large extent on non-availability of power, drove cement prices to the hilt. The kind of money minted by most cement companies as well as investors in that period made strategies plan enormous increases in capacity. This explains why capacity creation starting 1994 was so enormous.
Profits

The amount of profits being raked in tempts more players to enter the industry. Contagious enthusiasm sweeps the industry and suddenly there is a glut of new players. Capacities start increasing at a rate greater than the demand growth rates. A scenario of excess supply to demand becomes imminent.

Risk

With competition increasing and growth in supply exceeding demand growth, prices begin to fall. This is the time which players realize that Greenfield capacity addition would be to their own detriment. Consolidation within the industry starts. Most of the players weakened during the excess supply induced recession and they sell off to larger and stronger players. Hostile takeovers are also witnessed during this period as the only way to expand is by takeovers. The slew of takeovers in the last two years culminating in Gujarat Ambuja taking a stake in ACC, the largest cement unit in India bears ample testimony to this fact. Till now, over 12 M.T have changed hands. Excluding Indian Rayon’s transfer of 3 M.T to group company Grasim.

The Government encourages the setting-up of mini cement plants due to the following reasons:

1. The utilization of limestone reserves
2. Gestation aid up commissioning these units is just about half of that of larger units
3. The infrastructure requirements of the mini cement plants are much less compared to major companies.
4. The cement produced may be locally distributed thus easing the complicated distribution problem and transport bottleneck.

5. There is an inherent rural development and employment potential in these plants.

6. The mini plants are having advantage of lower cost per installed tone capacity. It is less than 75 per cent of the capital costs of the large units.

7. Mini plant’s wages are not regulated by the cement wage board. As a result the minimum wage paid by the large unit is nearly Rs.1,100/- per month while the wage in the mini plants is Rs.350/- per month only.

8. The cost involved in having captive power units is less in the case of mini plants.

**Government Policies**

Government policies have affected the growth of cement plants in India in various stages. The control on cement for a long time and then partial decontrol and then decontrol has contributed to the gradual opening up of the market for cement producers. The various Government policies for the growth of cement industries are listed below.

- Sops to the housing and infrastructure sector

- Interest amount on housing loan eligible for tax rebate increased from Rs. one lakh to Rs. one and half lakhs.

- House repair amount eligible for deduction from house income increased from 25 to 30 per cent
• 10 year tax holiday to be availed within the first 20 years for core infrastructure projects such as toll roads, Bridge, rail system highway project, water supply project, sanitation, ports and industrial estates tax holiday of 10 years in the 15 years.

• Allocation of a special quota of Rs.2000 crores of tax-free bonds between NHB, HUDCO for undertaking house construction activities in Gujarat.

• Cement sale in Gujarat for usage in construction activities of select agencies identified by the State Government (Such as HUDCO) would be exempted from excise.

• Gujarat Government can raise funds by floating tax-free Earthquake Relief Bonds.

• Fund corpus for Rural Infrastructure Development Fund (RIDF) increased by Rs.500 crores. Interest rate also reduced to 10.5 per cent

• Hike in railway freight on cement by 33 per cent, on coal by 2 per cent and on furnace oil by one per cent.

• All surcharges on corporate tax removed except for the 2 per cent surcharge imposed for the Gujarat earthquake relief activities.

• Dividend tax reduced from 20 per cent to 10 per cent

• Import duty on cement and clinker reduced from 35 per cent to 25 cent

• Removal of 10 per cent surcharge on custom duties of products and raw materials.

The present cement market conditions have further eroded their economic viability. It is necessary, therefore, that mini cement plants are extended government incentives till such time they become financially sound. The scheme of financially rehabilitating the mini-
cement plants should encompass the tiny plants, which have been set up in late 80’s making use of the technology developed by the regional research laboratory. A tiny cement plant has production capacity between 20 and 25 tonnes a day. These plants have good development potential in view of the low production costs and the anticipated recovery in demand for cement in the coming years.

**Recent Trends in Cement Industry**

Modern cement companies are facing much competition. Problems and many other factors in the market are much higher because of various direct and indirect factors. Though the prices are relatively higher, some of the companies are still facing loss in their financial position.

This is due to many factors, and the study deals with the following factors.

- History

- It’s past trends

- Its competition

- Its recent trends and

- Its controllable factors.

In this study, analysis is done with reference to two big industries in the competitive cement market,
• India Cements Limited

• Dalmia Cement (Bharat) Limited

Before analyzing the above two companies, a brief analysis about the performance of cement industries in recent years in India is attempted.

The Current Cement Industrial Scenario in India

The fast pace of consolidation in the cement industry, triggered by domestic majors Grasim Industries and Gujarat Ambuja cements, has left little room for the cement trans-national to gain a strong foothold in the domestic market. With the creation of 2 cement blocks-Gujarat Ambuja cements-Associated Cement Companies (ACC) and potential Grasim-Larsen and Toubro (L&T) combine controlling over half of the total capacity. Industry observers feel that international cement majors, waiting in the wings to make an entry, may no longer find India a favorable destination. The only option for them would be to wait for further consolidation to happen and acquire one of the consolidated entities at a later stage. Apart from the world’s largest manufacture Lafarge, which already has a 4.5 million tone capacity in India built through acquisition, the other giants, including Holcim and Cemex have been looking for acquisition opportunities for a long time, although former has a minority stake in Kalyanpur cements, a little known one million tone cement company. Italy cement is the only other foreign major with an India presence through its 50:50 joint ventures in Zuari cements. The international players have never been too keen in acquiring piecemeal capacities. In fact, that is why three of the leading players are eyeing L&T’s cement business instead of going for smaller buys. However, with Grasim Industries joining L&T as a strategic investor, the possibility of
the international players gaining a foothold there is unlikely. The only way they may still
gain a strong presence is by acquiring a consolidated company at a later stage, says a top
official with a leading cement company. Lafarge, Holcim and Cemex are in the run for
L&T’s 16 million-tonnes cement business and had completed the due diligence exercise.
Add a merchant banker, “Most internal majors have been taking a lot of time in striking
deals in India. They have been very cautious about investing in India, and that is the
reason why they lost out on quite a few opportunities. Gujarat Ambuja Cements, it may
be recalled, has outsmarted Lafarge in striking a deal with the Tatas to acquire its 14.4
per cent stake in ACC for over Rs. 1000 crores. The French cement major is second time
unlucky when their plan to take over the Delhi-based DLF Cement does not succeed.
Gujarat Ambuja moves at a blistering pace to block the entry of Lafarge into northern
market, which has been its home turf. Gujarat Ambuja acquires the 1.4 million tonnes
company, now renamed Ambuja cement Rajasthan, for Rs.1312 crores. However,
Lafarge has been the only MNC looking aggressively at acquisition opportunities in
India. The French major acquires the 1.7 million tones cement facility (Which currently
stands at 2.3 million tonnes) of Tata steel three years ago for Rs.550 crores. The
company has augmented its presence in India by buying out Raymond’s 2.2 million tones
cement business for Rs.785 crores. Following the just concluded buyout of a 10 per cent
stake in L&T, Grasim with its strategic partner will now be on the top of the league with
30 per cent share of the domestic market. The duo would have a combined cement
industry of 29 million tonnes, ahead of the Gujarat Ambuja-ACC combine, which
controls 25 million tonnes. Although there are still quite a few acquisition targets, there
is a very few which would excite the MNC’s. Buying piecemeal capacities may turn out to be painful and messy for the foreign companies”, said an industry observer.

Zuari cements a 50:50 joint ventures between the KK Birla promoted Zuari-Chambal group and Italcementi Spa of Italy, is considering two acquisitions in south India. Within a year the plan is to raise the production capacity of the company from 2.2 million tonnes per annum to 4 million tonne in the next year through buyouts. According to management sources, talks are on with a handful of companies with operations in the south-included India cements promoted Shri Vishnu Cements Ltd. It was reported last month that the two are close to striking a deal, whereby India cements will sell its 94 per cent stake in Shri Vishnu Cements to Zuari Industries. Last Year, it’s spun off as 50:50 joint ventures with Italian Company. As per the memorandum of understanding between the two parties, Italcementi, expansion in the south will be through Zuari cements, though it is free to expand on its own in other parts of the country. A couple of months back, Zuari cements had ramped up the capacity of its Yeraguntla plant from 1.7 million tonnes to 2.2 million tones. Zuari cements have also entered into a marketing alliance with Cement Corporation of India (CCI). Under the arrangements, Zuari will sell CCI cement produced as its Tandur plant in Andhra Pradesh in the same state as well as in Tamil Nadu and Kerala. This will account for 25-30 per cent of the Tandur unit’s 1 million tonne per annum capacity. Thus the alliance will enable Zuari cements to sell an additional 2, 50,000-3,00,000 tonnes of cement in the next year. Apart from the acquisitions, Zuari cements are also eyeing a Greenfield cement plant in Karnataka. It has applied for a mining lease for Limestone deposits in Gulbarga district.

**Industrial production**
The cement industry is enhancing its production levels as new homes and offices are being built, and in keeping with the economy's annual growth rate. According to the Cement Manufacturers Association, the overall cement production rose by 8.11 per cent during 2007-08 to 168.29 million tonnes (mt) as against 155.66 mt in 2006-07. In fact, the 16.37 mt produced by the domestic cement industry in March 2008 has been the highest ever by the industry in a single month.

The cement production in the State increased from 17.92 lakh tones in 2007-08 to 19.01 lakh tones and registered a growth of 6.1 per cent. The production performance of public sector cement industries witnessed a downward trend while the industries in the private sector performed well compared to the preceding years. Among the major private sector cement plants in State, the Madukkarai, Grasion South, Sankaridurg, Dalavoi, Alangulam, Ramasamyraja Nagar, Alathiyur Works I, ChettinadKarur and Karaikal and Dalmia cements witnessed an increase in their production compared to the previous year. At the national level, the cement production increased from 1683.11 lakh tones in 2007-08 to 1814.17 lakh tones in 2008-09 which showed a growth of 7.8 per cent. During the year 2008-09, the State’s share worked out to 9.77 per cent of annual installed capacity and 10.48 per cent of cement production of the nation.

The consumption of cement was not affected by the slump in real estate construction activity in the second half of 2008. Between November 2008 and March 2009, the construction activities in the real estate sector were at its lowest on account of a slump in demand and cash crunch with developers. However, cement consumption grew during this period, which is driven by strong demand from the Government funded infrastructure projects and rural housing projects.
At the regional front, South Region (including Andhra Pradesh, Tamil Nadu and Karnataka) was leading the country in terms of cement production in 2009-10. Sufficient raw material availability and various incentives provided by the state governments make this region lucrative for investments. Numerous domestic and international cement companies are striving hard to establish their production base in this region. The installed cement capacity in the country has crossed the 300 million tones mark with the industry adding 19.6 million tonnes in 2011. The industry added 35.6 million tonnes (mt) in 2010.

India’s cement industry has performed better in 2011-12 (FY 12) on back of robust demand revival in the second half of the financial year. The 330 MT industries grew by 6.4 per cent in 2011-12 as against less than 5 per cent in 2011-11. The industry sold 223.02 MT of the building material, compared with 209.5 MT in FY 11. The cement production, too, rose to 223.6 MT against 210.5 MT in FY 11. The cement production increased from 137.16 million tonnes in April 2010-January 2011 to 145.00 in April 2011 – January 2012. While cement dispatches increased from 136.18 MT in April 2010-January 2011 to 143.96 MT in April 2011 – January 2012 according to data provided by the Cement Manufacturers Association (CMA).

Indian cement industry sustained its growth rate even in the tough conditions of economic slowdown. Cement production is expected to increase above 9% year-on-year during 2010-11 against the previous fiscal year. Almost every cement major expanded their installed capacity in the backdrop of the government backed constructive projects as these projects have created strong demand for cement in the country. Moreover, it is anticipated that the industry players will continue to increase their annual cement output
in coming years and the country’s cement production will grow at a CAGR of around 12% during 2011-12 – 2013-14 to reach 303 million metric tonnes.

One of the world’s largest and fastest growing cement industries, the Indian cement industry has been expanding significantly on back of rising infrastructure activities, increasing demand from housing sector, and construction recovery. According to the latest research report, the recent developments in the industry along with the strong support of government are attracting the global cement giants. They have estimated that the total cement installed capacity of India is to increase with a CAGR of around 7% during 2012-13 to 2014-15.

Market for Cement

For a construction material like cement, selling was rarely a problem in the pre-liberalization era. The concept of a two-tier distribution chain comprising of manufacturers and dealers functioned very well. It was a perfect and simple set-up, in the sense that manufacturers sold cement to dealers. From there on, the onus was on the dealers who established contact with builders, government and institutional buyers, and sold to retailers.

With the mushrooming of large plants engaging in cut-throat competition to grab a bite of the market pie, Indian cement companies are now beginning to adopt innovative strategies that have revolutionized the way cement is sold in India. What was predominantly sold in bags is now being sold in bulk, albeit in different quantities. Also,
with a view to adding value to their products, manufacturers have now started selling concrete instead of cement.

The retail level, an innovation in product packing is also a trend that conforms to international practice. The 106 million tone cement industry, which ranks third after China and the US, sells cement mainly in 50 kilogram bags, the most preferred product package.

Cement is an intermediate product - it either goes to a builder, or a concrete manufacturer, or small contractors for repairs and renovations. Even today the most preferred medium is bags, and this trend will continue. Only the dimensions will change.

Focused on product quality and with a strong selling point of easy-to-carry and consume, the product was immediately accepted by the market. Branded as ACC Samrat 53 grade cement, it has captured a significant portion of the retail market.

The interesting thing is that all the innovations are the focus on customer preferences. For example, because of pilferage and leakage from jute and plastic bags, premium customers prefer paper bags. In the process, manufactures are able to generate substantial premiums on cement packed in paper bags, over cement in plastic bags.

Re-designing of the two-tier distribution chain also enabled companies to push volumes—a key factor influencing the bottom lines of cement companies. The distribution chain is now extended to the level.
Gujarat Ambuja Cement revolutionized the market by setting up a chain of retailers catering to small contractors, whose requirements are met by authorized dealers. Today, Gujarat Ambuja boasts a 3200 strong retailer’s network in Mumbai alone.

Larsen & Toubro too has a good network, and operates through large stockiest. In doing so, the response time to orders placed by retailers has improved dramatically. What would take days is now delivered in a few hours.

**Structural Analysis of Cement Industry**

An analysis of market structure of an industry gives an insight into the various interdependencies that exist among companies operating in that industry, and how they influence behaviour and performance of each other. The concepts of firm, industry, market structure, conduct and performance are defined here, as conventionally used in the literature of industrial organization.

**Technology**

The manufacture of cement consists of (i) blending materials containing calcium oxide, e.g., limestone material such as clay, shell and sand, (ii) clink raising the mixture at high temperature in a kiln, (iii) grinding the clinker and when it is cooled, adding gypsum and other additives to produce the finished product. The essential difference between wet process and dry process lies only in the second stage of manufacturing, a brief description of each stage of production follows.

1. **Lime Stone Crushing**
The size of the quarried limestone is reduced using the crushers. The crushed limestone is staked in pre-blending stockpile, laying each batch of crushed limestone down in layers. To achieve a considerable degree of homogenization, the limestone is reclaimed systematically in a vertical manner.

2. a. Clinkerisation - Wet Process

The crushed limestone is fed into raw mill i.e., horizontal-rotating mills called ball mills. Other activities such as bauxite, manganese ore, iron ore and water are also fed with limestone in the right proportion. The resultant product is raw meal, which will be in the form of ‘slurry’. The raw material is then fed into a horizontal rotating kiln. Pulverized coal and a fraction of furnace oil, if required, is used as fuel burn the slurry into clinker. Since the water (about 35 per cent) in the raw meal has to be evaporated, the wet kilns consume about 350 to 400 kilograms of coal for production of 1 tonne of clinker.

b. Clinkerisation – Dry Process

The crushed limestone along with appropriate proportion of additives, such as bauxite, manganese ore, and iron ore are fed into the vertical roller mill. The resultant output is dry, powdered form ‘raw meal’. The raw meal is then fed into horizontal rotary kilns. The pulverized coal and a fraction of furnace oil, if required, are used as fuel to burn the raw meal into clinker. Since no water evaporation is required in the dry kiln, the coal consumption in this process is only 200 kilograms for the production of 1 tonne of clinker.

3. Cement Grinding
The clinker produced in wet or dry kiln can be stored in the open yard for a maximum period of 3 months, without deterioration in the quality. The clinker is fed into a horizontal rotating ‘cement mill’ with about 8-10 per cent gypsum. The resultant finely ground product is called ‘Ordinary Portland Cement’ (OPC). In order to obtain pozzolanic materials such as fly ash, and broken tiles (to the extent of 10-15 per cent), are added to clinker and gypsum in the cement mill. The cement is stored in silos, and is subsequently packed and dispatched.

Cement is a mixture of limestone, clay, silica and gypsum. It is a fine power which when mixed with water sets to a hard mass as a result of hydration of the constituent compounds. It is the most commonly used construction material.

**Different Types of Cement Produced by the Indian Companies**

There are different types of cement based on different compositions according to specific end uses namely Ordinary Portland Cement, Portland Pozzolona Cement, Portland Blast Furnace Slag Cement, White Cement and Specialized Cement. The basic difference lies in the percentage of clinker used.

**Ordinary Portland cement**

OPC, popularly known as grey cement, has 95 per cent clinker and 5 per cent of gypsum and other materials. It accounts for 70 per cent of the total consumption. White cement is a variation of OPC and is used for decorative purposes like rendering of walls, flooring etc., and it contains a very low proportion of iron oxide.

**Portland Pozzolona Cement (PPC)**
PPC has 80 per cent clinker, 15 per cent Pozzolona and 5 per cent gypsum and accounts for 18 per cent of the total cement consumption. Pozzolona has siliceous and aluminous materials that do not possess cementing properties but develop these properties in the presence of water. It is cheaply manufactured because it uses fly ash, burnt clay and coal waste as the main ingredients. It has a lower heat of hydration, which helps in preventing cracks where large volumes are being cast.

**Portland Blast Furnace Slag Cement (PBFSC)**

PBFSC consists of 45 per cent clinker, 50 per cent blast furnace slag and 5 per cent gypsum and accounts for 10 per cent of the total cement consumed. It has a heat of hydration even lower than PPC and is generally used in construction of dams and similar massive constructions.

**White Cement**

Basically, it is OPC clinker using fuel oil (instead of coal) and with iron oxide content below 0.4 per cent to ensure whiteness. Special cooling technique is used. It is used to enhance aesthetic value, in tiles and for flooring. White cement is much more expensive than grey cement.

**Specialized Cements**

Oil well cement is made from clinker with special additives to prevent any porosity. Rapid hardening Portland cement: it is similar to OPC, except that it is ground much finer, so that on casting, the compressible strength increases rapidly.
Waterproof cement: OPC, with small portion of calcium storage or non-saponifiable oil to impart waterproofing properties.

**Different Types of Processes**

The Wet, semi-dry or dry processes can be used to produce cement. In the wet or semi-dry process, the raw material is produced by mixing limestone and water (called slurry) and blended with soft clay. The dry process and semi-dry processes are more fuel-efficient. The vertical shaft technology employed by mini cement units uses the wet process whereas the rotary kiln technology uses the modern dry process. The Indian cement industry has been progressively using the wet process and the dry process, which now accounts for 91 per cent of the installed capacity.

The manufacturing process of cement consists of mixing, drying and grinding of limestone, clay and silica into a composite mass. The mixture is then heated and burned in a pre-heater and kiln and then cooled in an air cooling system to form clinker, which is the semi-finished form. This clinker is cooled by air, subsequently ground with gypsum to form cement.

Limestone is the key raw material and normally, 1.2 to 1.5 tons are needed for every ton of cement. The quality of the limestone significantly affects the operating efficiency of the units. Under normal conditions, to produce 1 ton of cement, 0.25 ton of coal, 120 kWh of power and 0.05 ton of gypsum is required.

**Obsolescence**
Many cement factories face the problem of large-scale obsolescence of their plant and machinery. But with the introduction of partial decontrol in February 1982, the industry has entered a new era of hope and confidence. Enthused by the liberalization, the industry has drawn up comprehensive modernization/expansion programme involving a massive capital investment of about Rs.2,500 crores. The capital expenditure incurred from April 1982 up to September 1984, aggregated Rs.575 crores. In addition to modernization and conversion of wet kilns into dry kilns, the programme includes the setting up of captive power generating sets and quarry modernization.

Profitability is determined by structural as well as behavioural variables. Structural factors have a bearing on profitability, size, growth, and barriers to entry, degree of vertical integration, diversification and cost conditions. As mentioned earlier, corporate policies relating to various functions will affect profitability. Some of them are relevant in the short run while others have impact in the long run. One has to identify certain specific variables considering the purpose of study and relevance of factors in explaining profitability in the industry during the period of study. Financial ratios are used to measure the variables.

Cement is a basic material, which is used in all types of construction activities—industrial construction, housing, dams, bridges etc. The cement industry therefore plays a vital role in the country’s economic development and its easy availability is an essential pre-requisite for rapid growth of the economy. It is considered one of the core sectors of the economy. The per capita consumption of cement is rightly considered as a barometer of the pace of a country’s economic development.
The decade of eighties witnessed major developments in the cement scenario. In February 1982, partial decontrol of cement distribution and pricing was done with the introduction of the system of levy cement and dual pricing. In the subsequent years, the controls were gradually eased and the industry was completely decontrolled in 1989. The decade of eighties witnessed a gradual liberalization in all sectors of the industry and the highest rate of growth of industrial production since the advent of planning era. In line with this, the cement industry also achieved the highest rate of growth and by the end of the decade, for the first time, the country became a surplus producer of cement and started exporting cement. Consequent to opening up of the economy in 1991, there was a slow-down in the economic growth, due to reduction in the public sector outlays and a lag in the private sector initiatives. As a result there has been a slow-down in the growth of the demand for cement. The output of cement in 1992-93 did not record any worthwhile growth when compared with 1991-92. However, the industry has shown signs of recovery in the year 1993-94 with a growth in output of over 6 per cent.

Cement is an essential constituent of concrete, and is the basic material used for the construction of buildings, roads, bridges, tunnels, drainage networks, etc. It is grey powder that has the property of hardening in the presence of water, in the absence of air. Cement manufacture consists of grinding an artificial rock called clinker very finely (to a few microns), mixing with other products including gypsum and limestone fillers, or by-products from other industries such as blast furnace slag or coal fly ash.

Clinker is produced by intimately mixing about 80 per cent limestone and 20 per cent clay (percentages expressed dry) and this highly alkaline mixture is baked at 1450° Centigrade in appropriate kiln operating in reverse current. Then clinker is cooled by air,
thus increasing the air temperature to between 800 and 900° Centigrade and the air is then used secondary combustion air and provided more than 90 per cent of the total air necessary.

The ground raw material passes through the kiln with its hot gas reverse current and its temperature rises to about 1450° Centigrade, which is the temperature at which clinker minerals, are formed. As it leaves the kiln, the clinker is suddenly cooled in order to fix crystalline state.

**Modernization and Expansion Plan**

Many cement factories face the problem of large scale of obsolescence of their plant and machinery. There is, therefore, immense scope for rejuvenation, modernization and expansion of Indian cement industry. Modernization in a nutshell, means using modern technological advances to ensure that productivity increases quality improves and the cost of inputs is reduced to the maximum extent possible.

The Government policy lays much emphasis on modernization and upgradation of technology. The modernization programme of cement industry covers use of precalcintor technology; conversion from wet to dry process; introduction of advanced technologies in the area of quarry operations, crushing and grinding, material handling etc., installation on pollution controls equipment increasing productivity by modern process control and instrumentation. The industry has drawn up comprehensive modernization and expansion programmes, involving a massive capital investment of about Rs.2, 500crores.

A World Bank line of credit to the tune of $200 million is available for the modernization of seven plants and providing sub-sector training assistance for the cement
industry. The changeover to dry process technology will result in economy of energy consumption. Many cement units have scope for reducing energy consumption to the extent nearly 12 per cent.

**Research & Development**

Research & Development work in the fields of cement technology is being carried on by the cement research institute, several universities and also by various organizations in public and private sectors. The gamut of their activities includes use of industrial waste such as fly ash, puzzolona in the manufacture of cement, productivity enhancement programmes development of mini cement plant technology and host of other programmes.

The I.I.T., Kanpur and the Regional Research Institute had developed a technology for the manufacture of cement from paddy husk. Already a factory in Shimogaa, Karnataka has been making successful applications of this technology to produce cement. The states of U.P. Punjab and Haryana, are taking speedy action to establish similar plants. The cement from paddy husk may be utilized to any construction work.

A cement Research Account has been set up by the committee of Director of cement Research, with the Cement Research Institute, as the Secretariat of the Committee. This account has about Rs.100 lakh coming mainly from the provision of Rs 50 per tonne in the cement retention price. However, the funds have not been allocated on any systematic basis so far, and a substantial part remains unutilized. It may be said
that cement research in the country requires a new direction, proper guidance and a fresh
and comprehensive programme.

The National Council for Cement and Building Materials (NCCBM), the apex
body in cement research and development, along with other research organizations are
responsible for technological development, in the area of energy conservation, mining,
cement manufacture and environment protection.

A number of cement companies are also pursuing research and development
activities through their R &D Units. The cement industry has reached a stage where
cement companies are creating new values to influence customers. Segmentation selling,
packaging innovations and value addition are becoming the tools to woo customers. In a
market that is highly competitive, innovative selling ideas will ensure higher volumes and
higher premiums. With that, only companies that adopt newer selling idea will be able to
beat the clutter.

Problems Associated with Cement Industry

The main impediments to the growth of cement industry in India may be broadly
listed as follows.

**Shortage of Capital:** The cement industry is capital – intensive in nature. On account of
its record of declining profitability it is unable to raise the required finance from the
capital market.

**Power Shortage:** Cement industry is also power intensive, frequent power cut affects the
production. Though many units try to tide over the power crisis by installing their own
generators, they seem to suffer loss due to high cost of such effort. It is estimated that 50-55 per cent of total manufacturing cost relates to power.

**Location Problems:** Cement industries mainly situated western and southern regions about 71 per cent of the total output, while the northern and eastern regions account for 29 per cent of the total output. The southern and western regions consume only 57 per cent of their total output while the northern and eastern regions consume 43 per cent of their total production. There is excess production in the southern and western regions while there is excess demand from northern and eastern regions. These factors lead to heavy transport cost.

**Shortage of Coal:** Coal shortage affects production of cement industry resulting in idle capacity and underutilization of capacity. The impurities and low quality of coal affects the furnaces and quality of cement. Coal supplied to cement unit has reportedly ash content up to 57 per cent and a calorific value of 3,000 and even less against the calorific value of 4,500 to 6,500 of imported coal.

Non-availability of Railway Wagons: Non-availability of railway wagons leads to considerable delay in bringing in the raw materials and in dispatching the cement to various potential markets. Sending cement by open railway wagons leads to pilferage and damage by rain, 55 per cent of cement is dispatched by rail and 45 per cent by road.

**Defective Method of Transport:** Methods of cement bagging and its transportation in India are primitive and which make marketing inefficient and uneconomical. Hardly any quantity of cement at present is handled in bulk.
Negligible Share in World Trade: India’s share in world trade is negligible. Currently, India exports only 3.5 lakh tones in year.

Technological Obsolescence: The industry is in need of change in the production process. There is a need for conversion from wet process to dry process. It needs an investment exceeding Rs.200 crore. If the industry does not earn reasonable profit, institutional finance also becomes difficult. The other factors that affect the cost of production and the profitability of the industry are mainly due to:

a. Price increases in critical energy inputs such as coal, power, lignite etc.

b. Higher wages and lower labour productivity

c. Royalty and other levies-public levies of royalty and mineral rights tax constituted 60 to 70 per cent of limestone cost in Andhra Pradesh.

d. Lower capacity utilization where higher capacity utilization has been achieved with captive power generated at twice the cost of grid power.

e. High capital and financing cost of the new plants owing to high import duty for plant and machinery as well as high cost of steel and,

f. Increases in freight charges over the period.

Cementing the Export Prospects:

Indian cement is exported mainly to Nepal, Bangladesh and a small portion to Sri Lanka. Though export enquiries for about 1 million tones are on hand with India, with the huge domestic demand exports have taken a back seat. Substantial export can be
achieved if 100 per cent export oriented units are set up in the coastal area. These units would have the benefit of low project cost due to the concessional import duty and could afford to import coal against export earnings. It was believed that the Post-Gulf War would lead to massive requirements of cement once the reconstruction of Kuwait and Iraq had commenced. It was estimated that a good deal of Iraq’s 7 million tonne capacity have been destroyed. Cement is one of the extreme focus items for exports, the target being 5 million tones by end of 8th Five year Plan.

In addition to commercial marketing of cement export, the following measures could be considered.

a. Supply of cement to Indian construction companies working abroad

b. Cement to be included as one of the commodities, while giving aid to other countries.

c. While going in for large import to include cement as one of the items to be exported from India as counter trade.

At the global level given the present scenario, prospects for cement exports are deemed to be favourable in the coming years. There is good potential for export, what is required is adequate infra structural facilities.

Cement industry was partially decontrolled in February 1982. Effective from March 1989 the government announced complete withdrawal of price and distribution controls on cement. Finally it was delicensed in 1991. The industry was able to achieve
in the short period of eight years, what it could not during the long span of more than six decades of its existence.

**Price and distribution Controls (1940-1981)**

During the Second World War, cement was declared as an essential commodity under the Defence of India rules and was brought under price and distribution controls, which resulted in sluggish growth. The installed capacity reached only 27.9 MT by the year 1980-81.


In February 1982, partial decontrol was announced. Under this scheme, levy cement quota was fixed for the units and the balance could be sold in the open market. This resulted in extensive modernization and expansion drive, which can be seen from the increase in the installed capacity to 59 million MT in 1988-89 in comparison with the figure of a mere 27.9 million MT in 1980-81, an increase of almost 111 per cent.

**Total Decontrol (1989)**

In the year 1989, total decontrol of the cement industry was announced. By decontrolling the cement industry, the government relaxed the forces of demand and supply. In the next two years, the industry enjoyed a boom in sales and profits. By 1992, the pace of overall economic liberalization and peaked; ironically; however; the economy slipped into recession taking the cement industry down with it. For 1992-93, the industry remained stagnant with no addition to existing capacity.

**Government Controls**
The Prices that primarily control the price of cement are coal, power tariffs, railway freight, royalty and cess on limestone. Interestingly, government controls all these prices.

**Coal**

The consumption of coal in a typically dry process system ranges from 20-25 per cent of clunker production. This means for per ton clunker produced production cost. The cement industry consumes about 1 million tonnes of coal annually. Since coalfields like BCCL supply a poor quality of coat, NCL and CCL the industry has to blend high-grade coal with it. The 25-30 per cent compared to imported coal of high calorific value (7000-8000kcal/kg) with low ash content 6-7 per cent. Lignite is also used as fuel by blending it with coal. However this process is not very common.

**Electricity**

Cement industry consumes about 5.5 billion units of electricity annually while one tone of cement approximately requires 120-130 units of electricity. Power tariffs vary according to the location of the plant and on the production process. The state government supply this input and hence plants in different states have different power tariffs. Another major hindrance to the industry is severe power cuts. Most of the cement producing states like Andhra Pradesh, Madhya Pradesh and Tamil Nadu
experiencing power cuts to the tune of 25-30 per cent every year causing substantial production loss.

**Infrastructure**

To reduce uncertainty relating to power, most of the leading companies like ACC, Indian Rayon, and Grasim rely on captive power plants. A few companies are also considering power-generating windmills.

**Limestone**

This constitutes the largest bulk in terms of input to cement. For producing one tone of cement, approximately 1.5 tonne of limestone is required. Therefore, the cement plant location is determined by the location of limestone mines. The major cash outflow takes place by way of royalty payment to the central government and cess levies on royalties levied to be 90 billion tones. Andhra Pradesh has the largest share -34 per cent, Karnataka 135, Gujarat 135, Madhya Pradesh 8 per cent and Rajasthan 6.5 per cent. The plants near the limestone deposit pay less transportation cost than others.

**Transportation**

Cement is mostly packed in paper bags now. It is then transported either by rail or road. Road transportation beyond 200kms is not economical therefore about 55 per cent cement is being moved by the railways. There is also the problem of inadequate availability of wagons especially on Western railways and South-eastern Railways. Under this scenario, manufacturers are looking for sea routes, this being not only cheap but also reducing the losses in transit. Today, 70 per cent of the cement movements
world-wide are by sea compared to 15 per cent in India. However, the scenario is changing and most of the big players like L&T, ACC and Grasim are setting up their bulk terminals.

The cement industry may never be the same again. From a commodity business, the cement industry is today moving towards brand building and improved logistics management to drastically bring down its delivery cost.

Watch out for more action as consolidation and strategic alliances are set to gain momentum, as the industry’s fragmented character may soon become a thing of the past. With big-ticket infrastructure projects including the golden quadrilateral project and the east-west north-south corridors-coming up, the industry is geared towards a sharp rise in cement off-takes over the next 3-4 years.

The manufacturers say, will open up the floodgates for further consolidation, which could, in effect, bring about a stable price regime. It would be an era of strategic alliances. Though there could be a few takeovers and mergers, strategic alliances would surely be the dominant theme. The coming months would see relatively smaller manufactures coming together and innovating ways to slash the cost of delivery. Strategic alliances, as manufactures are fast realizing, would go a long way in driving down critical cost elements like that on input, production processes, marketing and distribution. Opportunities like cross branding to slash transportation costs are being explored by the industry, which is fast transforming with the times. Branding would also become a very important issue as manufacturers explore new ways to improve
realizations. While cement process would be a function of the presence they would be able to sell at a premium.

Gujarat Ambuja Cements – ACC and Grasim industries – Larsen & Toubro control around 46 per cent of total cement capacity. Industry observers feel, the consolidation will now enter the decisive phase with small cap manufactures joining the fray.

According to Kotak Securities the key drivers for further consolidation would be the vulnerability of regional players and the under-representation of global majors. It is felt that further consolidation, from medium size cement companies, will improve industry dynamics thereby driving asset valuations”.

Such heightened activity, analysts feel, would go a long way towards improved logistics management, which is so critical for the industry given its ‘high-volume low valve’ nature of cement. Besides, such alliances would significantly help in stabilizing the price structure.

A.K. Jain, President (Marketing) of ACC says the focus on logistics, to a great extent, would depend on the fright costs. If diesel prices see an upward revision in the coming months, logistics management would definitely become even more important. However, what is driving the industry today is the confidence that demand would firm up in the coming months. Although the much talked about demand-supply parity may still be a couple of years away, the cement industry is confident about the further, especially with the government’s initiatives on housing and infrastructure development, gaining steam.
PROFILE OF THE SAMPLE INDUSTRIES
DALMIA CEMENTS (BHARAT) LTD.

Dalmia Cement was established in 1935 by Jaidayal Dalmia. The cement unit started commercial operations from 1939. The machinery used for cement production was imported from Germany. The factory had the capacity of manufacturing 250 tonnes per day. Magnesite operations were commenced from 1958. The 200 tonnes Vertical Shaft Kiln was installed in 1982. It initially used the Fuel Slurry process. The company got the ISO 9002 certification in 1993. The VRM-Cement Grinding Mill was commissioned in 1997. The 3300 TPD-KHD up gradation was completed in 2002. The ISO 14001 certification was obtained in 2004. The 3800 TPD FLS Plant was commissioned in 2006.

The Dalmia Group had established four cement plants in pre-independence years, two of which were affected by the partition and Independence. The two remaining plants operate as Dalmia Cement and we have also made strategic investment in Orissa Cements Limited (OCL). Managed by a professional team, they have sustained the path to innovation and growth for seven decades.

Dalmia Cement (Bharat) Limited is an Indian company engaged in the manufacture of cement. The company also processes sugar and has its own Research and Development arm. JH Dalmia is the Vice Chairman of Dalmia Cement (Bharat) Limited. The company is popularly known by its initials: DCBL.

The company has cement plants in southern states of Tamil Nadu (Dalmiapuram & Ariyalur) and Andhra Pradesh (Kadapa), with a capacity of 9 million tonnes per annum. A leader in cement manufacturing since 1939, DCBL is a multi-spectrum Cement
player with double digit market share and a pioneer in super specialty cements used for oil wells, railway sleepers and air strips. It also holds a stake of 45.4% in OCL India Ltd., a major cement player in the Eastern Region, and now controls a cement capacity of 14.3 million tones and has a strong presence in southern & eastern regions of the country.

They have also kept up the pace of excellence. In 1993, DCBL became the first company in South India to obtain ISO 9002 certification and second in the country among the Indian Cement Plants. In 2004, they became an ISO 14001 certified company. Its efforts in sustaining growth with responsibility have merited us many notable awards for Energy Conservation & Efficiency, Safety, Health & Environment issues from the Government and other reputed agencies. The company has year on year moved up the value chain with a consistent record of making profits and paying dividends, making the company financially strong and stable. With a total income of over Rs. 2194 crores DCBL has business interests in two major segments, cement and sugar. It objective is to grow further and be among the top manufacturing industries today. In this course, the cement business has grown with an increased production capacity from 1.5 million tonnes [MT] in the past to the current installed capacity of 9 MT. Also they have sugar business since its commencement in 1994, has grown to have three integrated sugar mills in the State of Uttar Pradesh with total installed capacity of 22,500 tonnes of cane crush per day leading to sugar manufacturing of about 300,000 MT per annum, distillery capacity of 80 KL per day & cogeneration facility. With the launch and commencement of its two Greenfield projects in the Kadapa district of Andhra Pradesh and Ariyalur in Tamil Nadu with a total 5MN tonnes capacity, this parabolic growth in last few years is a testament of the company determination to grow into a leadership position.
Company History – Dalmia Industries

1937 - The company was incorporated at Bihar. The main object of the company is to manufacture dairy products like skimmed milk powder and ghee. It also runs a trading unit which deals in peanut candy, mustard oil and crash helmets. The dairy products are sold under the trade name SAPAN.

- All shares issued for cash. Till 1951, paid-up capital changed from year to year.

1954 - Share capital reorganized paid-up capital reduced from Rs.150, 21,337.50 to 150, 00,000 by refunding Rs. 21,377.50.

1964 - The company owned two factories in Pakistan, at Karachi and at Dandot (West Punjab), having an annual capacity of about 3,000 tones. The company manufactured refractories at the Dandot Factory. A transaction was concluded on 30th September.

1967 - With effect from 1st September, the Company obtained a lease of the stoneware pipe and reinforced cement concrete pipe manufacturing plants from Dalmia Cement (Bharat), Ltd., located at Dalmiapuram. The business was to be carried on under the name and style of Dalmia Ceramic Industries. The company was also appointed sales Manager for the sale and distribution of refractories manufactured by the Dalmia Cement (Bharat), Ltd. The company decided to put up a plant at Bharatpur (Rajasthan) for the manufacture of skimmed milk powder and ghee.

1969 - With effect from 1st February, the company took over on lease the refractory plant
of Dalmia Cement (Bharat), Ltd., at Dalmiapuram. The arrangement with Dalmia Cement (Bharath) Ltd., under which the company was acting as 'Sales Manager' for the sale of refractories was terminated.

1974 - 2,40,000 shares offered to members of Dalmia Cement (Bharat) Ltd., only 1,13,640 shares taken up. The balance 1,26,360 shares offered to the public.

1975 - The name of the Company was changed from Dalmia Cement Ltd., to Dalmia Dairy Industries, Ltd., with effect from 6th of March.

- The Company ceased to be a subsidiary of Dalmia Cement (Bharat), Ltd., with effect from 31st January.

- Along with the public issue of equity shares during the year, one of the existing shareholders offered for sale at par 21,000 equity shares of Rs. 10 each to the public in order to meet the listing requirements of the stock exchanges.

1977 - Shares fully called up. 100 shares forfeited. 2, 99,900 bonus shares then issued in prop. 1:1.

1985- 4, 00,000 bonus shares issued in prop. 2:3.

1988- 5, 00,000 bonus shares issued in prop. 1:2.

1989- The name of the company was changed from Dalmia Dairy Industries Ltd., to Dalmia Industries Ltd.

1990 - Sapan Dairy Special was relaunched in October which helped to achieve good growth in sales volume. The programs of modernization were initiated at the Bharatpur
factory. The company was also engaged in an ongoing programme of modernization and plant upgradation.

2000 - The company proposed to reopen the century-old Punalur paper mill which has been lying closed for over a decade.

PROFILE OF THE SAMPLE INDUSTRIES – INDIA CEMENTS

Company Profile
The India Cements Ltd., was established in 1946 and the first plant was set-up at Sankar Nagar in Tamil Nadu in 1949. Since then it has grown in stature to seven plants spread over Tamil Nadu and Andhra Pradesh. The capacities as on March 2010 have reached 14.05 mtpa.

Vision and Mission
The new millennium will bring with it new challenges and greater opportunities. The 21st century will most certainly see the unfolding of a period of extraordinary possibilities and incredible developments bringing about more fundamental changes in the global economy.

**Company Highlights**

- The company is the largest producer of cement in South India.
- The company's plants are well spread with three in Tamil Nadu and four in Andhra Pradesh which cater to all major markets in South India and Maharashtra.
- The company is the market leader with a market share of 28% in the South. It aims to achieve a 35% market share in the near future. The company has access to huge limestone resources and plans to expand capacity by de-bottlenecking and optimization of existing plants as well as by acquisitions.
- The company has a strong distribution network with over 10,000 stockists of whom 25% are dedicated.
- The company has well established brands- Sankar Super Power, Coromandel Super Power and Raasi Super Power.
- Regional offices in all southern states and Maharasthra offices/representative in every district.
- Technical cell to cater to all your queries/doubts

**MILESTONES OF INDIA CEMENTS**

1946- Incorporation of the India Cements Limited.
1949- Commissioning of first Cement plant at Sankarnagar-Installed capacity 1 lakh tonnes per annum.

1963- Commissioning of second Cement plant at Sankaridrug-Installed capacity 2 lakh tonnes per annum.

1969- Capacity expansion at Sankar Nagar touches 9 lakh tonnes per annum.


1971- Capacity Expansion at SankariDurg to 6.00 Lakh tonnes per annum

1990- Acquisition of Coromandel Cement plant at Cuddapah-Installed Capacity rises to 2.6 million tonnes per annum. The India Cements Ltd. becomes the largest producer of Cement in South India.

1990- Conversion of Sankarnagar Plant to Dry Process with the increased capacity of 1.00 million tonnes per annum.

1991- India Cements ventures into Shipping, sets up a Shipping Division.


1995- Announces issue of 1:1 Bonus shares.

1996- India Cements' green field cement plant at Dalavo commences commercial production with the installed capacity of 0.9 million tonnes per annum.
1997 - India cements acquire Aruna Sugars Finance Ltd., Renamed as India Cements Capital & Finance Ltd.

1997 - India Cements acquires Cement Plant of Visaka Cement Industry Ltd., at Tandur, Ranga Reddy district of Andhra Pradesh with installed capacity 0.9 million tonnes.

1998 - India Cements acquires Cement Corporation of India's Yerraguntla Cement Plant at Andhra Pradesh installed capacity of 0.4 million tonnes.

1998 - India Cements acquire Raasi Cement Ltd., at Nalgonda District of Andhra Pradesh with the installed capacity of 1.8 million tonnes.

1999 - India Cements acquires Cement Plant of Shri Vishnu Cement Ltd., at Nalgonda District of Andhra Pradesh with installed capacity of 1.0 Million Tonnes.

1999 - Turnover sails over the Rs. 1000 crore mark.

2001 - India Cements divests its stake in Sri Vishnu Cement Limited.

2001 - Group's overall capacity reaches 9 million tonnes.

2004 - The unique Waste Heat Recovery System for generation of power from waste gas at Vishnupuram Cement Plant was commissioned during November 2004, for a capacity of 7.7 MW of power.

2004 - The company through its special purpose vehicle M/s Coromandel Electric Co Ltd has commissioned a (gas based) captive power plant at Ramanathapuram for a capacity
of 17.4 MW and the same has started supplying power from the month of November 2004.

**2005**- The company has successfully completed an equity issue in the international market during October 2005 by issuing 25,613,796 Global Depositary Shares (GDSs) at USD 4.3226 per GDS, (each GDS representing 2 underlying equity shares of Rs. 10 each) and raised an amount of Rs. 497 crores including a premium of Rs. 446 crores.

**2006**- The company has issued unsecured Zero Coupon Convertible Bonds due 2011 (FCCBs) for US $75 million to investors outside India at an initial conversion price of Rs.305.57 per share.

**2007**- The Hon'ble High Court of Judicature at Madras vide its order dated 25th July 2007 sanctioned the Scheme of amalgamation of Visaka Cement Industry Limited with The India Cements Ltd.

**2007**- The company has converted the Sankari plant from wet process to dry process and commissioned the plant.

**2007**- The company has privately placed 2,07,89,000 equity shares at a price of Rs.285/- per share (including premium of Rs.275/- per share) by way of Qualified Institutional Placement in December 2007.

**2008**- The company has revived its shipping business with the purchase of two ships (dry bulk carriers) with a total capacity of 79843 DWT.
2008- The company has successfully bid for the Chennai franchise of the DLF-IPL 20/20 Cricket Tournament – “Chennai Super Kings”.

2008- The company has completed and commenced commercial production of one million tonne grinding plant at Chennai.

2009- The company has completed and commenced commercial production of one million tonne grinding plant at Parli (Maharashtra).

2009- The company’s subsidiary, namely, Trishul Concrete Products’ Limited has completed and commenced commercial production of one lakh Cubic MT ready mix concrete Plant at Hyderabad (Andhra Pradesh).

2009- The II line of 1.2 MT at Malkapur was commenced operations from March 2009.

2009- The upgraded capacity of kiln I to 3000 TPD (1700 TPD) at Vishnupuram started functioning from April 2009.

2010- ICL Financial Services Limited (ICLFSL), the Company’s wholly owned subsidiary, acquired 60.89% (including shares acquired under open offer) of equity share capital of Indo Zinc Limited (IZL). Consequently, IZL became a subsidiary of ICLFSL and ultimate subsidiary of the Company in January, 2010.

2010- The company privately placed in March, 2010 2, 45, 94,000 equity shares at a price of Rs.120.20 per share (including premium of Rs.110.20 per share) to Qualified Institutional Buyers.
2010- The company’s cricket franchise “Chennai Super Kings” has won IPL III Trophy in April 2010.

In this chapter the researcher has discussed the overview of the cement industries. The researcher has referred the studies related to history, product and performance of selected cement industries.