



## THE EFFICIENCY OF CEMENT INDUSTRY IN INDIA

**DR. S. RAJAMOCHAN<sup>1</sup>**  
Professor, Alagappa Institute of  
Management, Alagappa University,  
Karaikudi, (TN) INDIA

**G. HUDSON ARUL VETHAMANIKAM<sup>2</sup>**  
UGC-MANF-Doctoral Research Fellow,  
Alagappa Institute of Management,  
Alagappa University, Karaikudi, (TN) INDIA

### ABSTRACT

*The raw materials needed to produce cement are generally extracted from limestone rock, chalk, shale and clay. The cement contents are calcium carbonate, silica, alumina, and iron ore. These raw materials are won from the quarry by either extraction or blasting. These naturally occurring minerals are then crushed through a milling process. Overall consumption of cement in India was reported by the Cement Manufacturers' Association (CMA) at 135.6Mt in FY2006, a gain of just over 10 per cent over the previous year. Per capita cement consumption on this basis was around 120kg – still relatively low but growing steadily. In the eight months to November 2006, consumption grew 12.7 per cent compared to the same period in the previous year.*

**Keywords:** Cement Productions, Performance, Usages of Cements.

### 1. Introduction

Cement is a binder, a substance used in construction that sets and hardens and can bind other materials together. The most important types of cement are used as a component in the production of mortar in masonry, and of concrete, which is a combination of cement and an aggregate to form a strong building material<sup>[1]</sup>.

Cements used in construction can be characterized as being either hydraulic or non-hydraulic, depending upon the ability of the cement to set in the presence of water. The Hydraulic cements (Portland cement) set and become adhesive due to a chemical reaction between the dry ingredients and water. The chemical reaction results in mineral hydrates that are not very water-soluble and so are quite durable in water and safe from chemical attack. This allows setting in wet condition or underwater and further protects the hardened material from chemical attack. Non-hydraulic cement will not set in wet conditions or underwater; rather, it sets as it dries and reacts with carbon dioxide in the air. It is resistant to attack by chemicals after setting<sup>[2]</sup>.

The terms of financial performance analysis is also known as analysis and interpretation of financial statements'. It refers to the process of determining financial strength and weaknesses of the firm by establishing strategic relationship between the items of the balance sheet, profit and loss account and other operative data<sup>[3]</sup>. In addition to that the financial performance analysis is a process of evaluating the relationship between component parts of a financial statement to obtain a better understanding of a firm's position and performance.

The first one is financial performance and other one is cost efficiency which decides the original cost but not involved the profit of a finished products. In addition to that it is support to decide the fixations of profit in finished product. Cost effectiveness analysis assumes that a certain benefit or outcome is desired and that there is several alternative ways to achieve company objectives. The researcher is explaining supporting ways such as cost-effectiveness analysis is comparative, while cost benefit-analysis usually considers only one program at a time. Cost effectiveness analysis looks at economic decision making the costs and the benefits from a decision.

## 2. Objectives of the study

1. To study the theoretical background of the study
2. To evaluate the performance of cement productions in worldwide and categorised by Ranks.
3. To Assess the performance of cement industry in India

## 3. The Cement Industry in World

Cement is a binder, a substance used in construction that sets and hardens and can bind other materials together. The most important types of cement are used as a component in the production of mortar in masonry, and of concrete, which is a combination of cement and an aggregate to form a strong building material.

Table – 1

The Performance of Cement Production in World Wise

Rank	Country Name	Million Tonnes
1	China	2,482.42
2	India	285.83
3	USA	80.36
4	Iran	77.95
5	Indonesia	74.32
6	Brazil	72.57

7	Turkey	71.63
8	Russia	67.39
9	Vietnam	66.81
10	Japan	55.35

Sources: <http://worldknowing.com/>

Table-1 reveals that the performance of cement production in world wide. The cement productions were measured by the performance of Million Tonnes (MT) and listed the ranked. The first place is china (2,482.42 MT), India is got a second rank compare to the production of cement. After he cement production were listed namely, USA (80.36), Iran (77.95), Indonesia (74.32), Brazil (72.57), Turkey (71.63), Russia (67.39), Vietnam (66.81) and Japan (55.35). The reason found through this study for unavailability of resources. The cement company buy the raw material from various places hence the transportation expenses also increase. Herewith government schemes are announced regarding Goods and Service Tax (GST), so hereafter increase the productivity and also avoid the unnecessary expenses during purchase the raw materials for cement productions.

#### 4. The Cement Industry in India

India, the world's second largest cement producer, is a major economic success story with its cement sector expanding by 11 percent in 2006 and the future looking profitable, prompting the industry into major capacity additions to the tune of an estimated 100 MT.

It covered 41 top cement producers across nine Indian states, representing 80 percent of the sector. Gujarat Ambuja Cement Limited's Gujarat plant bagged second spot, while the third spot was shared by three companies J K Lakshmi Cement Limited, Prism Cement Limited and ACC's Galgal Cement Works.

The cement industry has recorded continuous growth since ANCEM planning started. The average annual growth rate of production of cement fluctuated violently due to unimaginative government police of control and distribution of cement. But the industry has maintained an upward trend throughout performance of cement industry.

India, world's second largest cement producer after China, is the home to a number of top cement companies. As various infrastructure projects, road networks and housing projects are coming up, many of which are backed by the government, the cement industry in India is growing at a great pace these days. With the capacity of 151.2 Million Tonnes (MT), the Indian cement industry is truly big in size and hence accommodates a number of cement companies in the market[4].

The Indian cement industry is largely dominated by a few companies. The top 20 cement companies account for almost 70 percent of the total cement production of the country. During April September 2009, the Indian cement companies produced 11 MT cement.

### List of Top 10 Cement Companies in India

The researcher were listed out top 10 Indian cement companies such as ACC Limited, Ambuja Cements Limited, UltraTech Cement Limited, India Cement Limited, Shree Cement Limited, Rain Cement Limited, Prism Cement Limited, Madras Cement Limited, Birla Cement Limited and JK Cement Limited.

### 5. The cement industry in Tamil Nadu

Tamilnadu is one of best place for producing the cement. These kinds of manufacturing sectors were motivated by the different government schemes. But the unavailability of raw material is the main barriers to produce the cements in stipulated periods. The researcher are categorised by capacity, cement production and cement consumption of Tamilnadu.

**Table – 2**  
**The performance of cement capacity and production in Tamilnadu**

(Million Tonnes)

Year	Capacity	Cement Production	Cement Consumption
2012	34.38	20.97	18.53
2011	34.38	20.63	18.03
2010	32.08	20.86	17.27
2009	24.43	19.02	15.88
2008	18.23	17.92	14.46

Source: <http://www.cmaindia.org/>

Table -2 displays that the performance of cement production, capacity and cement consumption of the cement production in Tamilnadu. The more and more capacity is available in the year of 2008-12. But the lake of technology is the major barriers to face the cement productions in Tamilnadu. The technology is used in the production and reduces the cost of the production in cements. Every cement industry should be checked the SWOT analysis, financial position through balance sheet and check the cost reduction through analysis of cost sheet.

### 6. Conclusion

The companies to concentrate in Lime Stone Quarrying expenses compare to other material. To use for new Technology and control the expenses than earning a more profit at Tamilnadu

Cement Corporation Limited. The company concentrates to changing a method of process. The company used for wet-process. It is old process still more cost expensive one so change to the dry-process. The process is easy at the same time cost is low. To consider the old system (Paper or manual system) to new system of computerize records maintains then easy to control the cost cement corporation Limited. To more concern the requirements of skill labour otherwise all work too late then cost also expenses. The all manufacturing cement sectors are make awareness about the GST and use this concept and avoid the unnecessary expenses. The producers will concentrate the production and achieve the objectives of the company as well as easy to compete the worldwide competitors.

## REFERENCES

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