CHAPTER - I

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[1]
1.1 PROFIT AND PROFITABILITY

1.1.1 Concept of Profit:

Earning “Profit” is the key point program of an enterprise. “Profit” reflects the motives of an enterprise. This Big question is of greater importance that How to Determine Profits earned by a concern? Proprietors are not the one and only business entity which is affected by the Actual Profit earned by an enterprise but it is also precious for other business entities including Income Tax Authorities, Managers, and Directors who shares the percentage of concern’s net profit. The world ‘profit’ has been defined in various ways. To some the profit of a business during a given period is the excess of income over expenditure for the period”. While for other “Profit is the execs of the assets over liabilities and the capital between two periods.” Profit may arise from trade as well as other sources.

Profit is a very important aspect of business. “The principal motivating force behind conducting business is profit. Perhaps the most important reason for keeping accounts, as far as the management of a business is concerned, is that the information contained in them provides the means of measuring the progress of the business of testing its pulse and indicating when and where remedial action if necessary, shall be taken.”\textsuperscript{1} Maximization of profit is the primary task of a concern’s management. A company’s business efficiency is measured in terms of amount of profit earned by it. The greater the profit, the more efficient is the business. By studying the profitability of investments done in a business may be used to measure the profit of a business.

In order to survive and grow over years in its business lifecycle a company should earn huge profits which must also grow along its age. It would be a major blunder in the thought process, if every decision and actions taken by the management is seen with regard to profit making.

“It is unfortunate that the word ‘profit’ is looked upon as a term of abuse since some firms always act to maximize profits at the cost of employees, customers and society.”\textsuperscript{2} Except such infrequent cases it is a fact that sufficient profits must be earned to sustain the operations of the business to be able to obtain funds form investors for expansion and to contribute towards the social overheads for the welfare of the society. There are three measurable concepts of profit:
(i) **Accounting profit**: In accounting the word ‘profit’ is used almost invariably with some qualifying words or phrases. In the report of a special committee of the American institute of Accountants, the word ‘profit’ is modified in thirty different ways. “According to this report the accountant usually means by the term ‘profit’ the excess of the selling prince over the cost of anything”.³

On the basis of discussion memorandum issued by FASB in 1976, which highlights important issues on accounting concepts, the most central of which is, of course, the conceptual view of income/profit. FASB has suggested three views of income,⁴ but only two of them i.e. the ‘assets and liabilities’ view and the ‘revenue and expenses’ view have been emphasized.

By measuring the earnings of a business for a period in net economic resources and in the view of its assets and liabilities changes can be measured.

Therefore, Accounting Profit can be obtained by calculating the difference between current value of sales minus historic cost of expenses and by adding retained capital gained into the difference. i.e. the difference between irregular disposal of assets minus historic cost minus depreciation of irregularity disposed assets.

(ii) **Economic Profit**: To determine economic profit a competitive or normal rate of payment for services of capital supplied by the conventional accounting methods. “The capital supplied by the firm is the market value of land, plant, equipment, the working capital, & net of amounts borrowed against the physical assets”⁵.

“In the theory of income distribution, economists classify income of the company into types, according to the nature of its source. Wages are income from direct labour; interest is the income form letting other people use one’s money, rent is the excess of the value produced by a productive factor over the payment needed to induce it as work, and profit is the excess of income over cost of production, wages, interest and rent have had a firm standing in theory for well over a century, but profit has always been a center of controversy. When does it appear? Who produces it? Who gets it?”⁶

Conclusive sense of “economic profit” is the scum of income during a given period of time, after all the contractual and non-contractual payments have been made from the revenue apprehended.
(iii) Accounting Profit V/S Economic Profit: In terms of accounting, accounting profit can be calculated by deducting explicit costs from gross income because of the principle of “Matching Cost”, which is quite pertinent in determining “Surplus” of total revenue over total cost.

But, from economist’s perspective – to measure economic profit, all “implicit” and “explicit” costs must be deducted from the gross income.

Owner’s or Proprietor’s remuneration, interest earned on owner’s capital and revenue generated through rentals of owner’s land and building etc. falls into the category of “Implicit” cost. Whereas payments made against factors of production such as manufacturing, administration and general, expenditure regarding sales and distribution, depreciation, interest on borrowed capital or loans and provisions etc.

Diagrammatical representation of difference between accounting and economic profit are as below:

<table>
<thead>
<tr>
<th>Total Revenues</th>
<th>Accounting Profit</th>
<th>Total Revenues</th>
<th>Economic Profit</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Explicit Costs</td>
<td></td>
<td>Implicit Costs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Explicit Costs</td>
</tr>
</tbody>
</table>

Fig. 1: Accounting Profit  
Fig. 2: Economic Profit

Thus the basic difference between accounting profit and economic profit is due to implicit costs.

(iv) Social profit: Differences between social benefits and costs may be defined as social profit. Furthermore, Large Corporation’s chief executive faces a couple of challenges including reunion of the employees for increment of the salary and enriched benefit plan, consumers for least prices with greater values and stakeholders for higher dividends plus greater capital appreciation – all within a outline that will be constructive and acceptable to society.

Currently available accounting methodologies and techniques to measure contributions of a business concern towards social responsibilities for community are not yet proven with relative degree of confidence and accuracy. However, some
companies have made an attempt to calculate the percentile expenditure under appropriate heads with an outlook to passing on its direct contributions towards social responsibilities.

### 1.1.2 Types of Accounting Profit

Primary motive or means of conducting a business is to earn profit. “Profit”, “Income” and “Earning” are interchangeable terms for the net financial gain of a business. Income statement can be usually categorized in two types – 1) Multiple Step income statement and 2) Single Step income statement. In “Multiple Step” income statement profit is determined in various steps like gross profit, operating profit or the operating profit before interest and taxes, net profit or the net profit before and after taxes and the profit available to shareholders.

**Gross profit**: Gross profit is computed by comparing Sales and Other operating revenues with the cost of goods sold. In case of cost of goods sold exceeds with the comparative sales and operating revenue the it’s accounted as gross loss.

**Operating Profit**: Operating profit for a business concern is the profit which includes all net income before taxes produced by operating assets and excludes any items of non-operating income, such as rental income form leased property, and non-operating expenses, such as interest payments. “In brief, the operating assets produce an income stream known as operating income”.

In general, operating profit is the difference between gross profit and operating expenses (often divided into administration, selling and distribution expenses).

**Net Profit**: Net Profit is sum up of operating profit with non-operating incomes minus other non-operating expenses. Secondary Sources of income like interest, rent and dividend received by an enterprise whose main business domain is quite different from these sources, generates Non-Operating profit. Other non-operating expense refers to incidental activities; for example, financing costs, such as the interest payment made to financers.

“Kohler defines Net Profit as the profit remaining from revenue after deducting related costs: it is thus the residual income left after meeting all the contractual and non-contractual expenses, such as manufacturing, administration, selling and financial expenses including depreciation provision and interest.
In case of current tax provisions are made and tax is deducted from the net profit before tax, the resultant figure is net profit after tax.

**Profit available to Equity Shareholders:** Equity Shareholders gets their dividend from the remaining available revenue after the deduction of preference dividend from net profit tax.

### 1.1.3 Accounting Profit and Social Profit

Accounting Profit can be computed by deducting current values of sales from the cost of expenses and then adding up retained capital gains. Where As deduction of social costs from social benefits produce social profit.

Hence, it concludes that accounting profit includes all the activities of a business concern while social profit includes only social activities of a business concern.

### 1.1.4 Value Added Profit Concept

Traditionally, accountants have valued the success of an organization in terms of profit realized during an accounting period. However, many accounts are now being introduced which stress upon the importance of another principle, viz. value-added statement. Profitability analysis, is solely based on the measure of profit, and is unidirectional. Even the two-dimensional, or two-path measurement of ‘return on investment’ which is the end-product of profit margin and assets turnover is microscopic, because it does not expose the real contribution made by an industry and by its various units to the incremental growth in the Gross National Product. In a developing economy the real profitability of an industry needs to be assessed not only on the basis of its increasing profits in absolute terms, or on its increasing ‘rate of return’ on ‘investment’ relative terms but also on the basis of value added by an industry to the Gross National Product. Thus, value added becomes all the more important when capital formation and capital accumulations are imperatively required for accelerating the pace of economic growth. The policy of integrated approach to development can be possible only when a strategy for the growth of inter-dependent and inter-related sectors is adopted for achieving certain basis national objectives.

Finally, there are two methods to calculate value-added profit namely subtractive and additive method. Subtractive method produces value-added profit
through deduction of sales from bought-in-costs whereas in Additive method employee costs, depreciation and interest will be added to profit before tax.

The application of value added belongs to all involved in the company, in the form of wages, etc., viz., those who have contributed their skills, dividend and interest and those who have provided capital or loans, taxes of various kinds which are paid to the government while retained earnings are ploughed back into the company to facilitate expansion. These allocations of value added are presented frequently in the form of a pie-diagram, which shows effectively and simply the proportions of wealth created which are being distributed to the various interested parties.

1.1.5 Concept of Profitability

“The word ‘profitability’ is composed of two words ‘profit’ and ‘ability’. On this basis the concept of profitability may be defined as the ability of a given investment to earn a return from its use”. This ability is also referred to as “earning power” or “operating performance” of the concerned investment. However, profitability is not a condition that exists and it can be measured for only a limited period of time. It is a variable thing like the temperature of the human body.

The concept of profit is related to absolute figures. It does not tell about the reason, scattereness and how it takes place or the relationship of one figure with another one. These questions can be answered by peeping into the profitability of an entity.

It is an appropriate to say that proprietors invest money in a business to earn a satisfactory return from it. The nature of this earning will be influenced by factors such as the type of the industry. The risk involved the risk of influence etc. These earning can be used to show the efficiency of the business as a whole.

Profitability is a relative term and its measurement can be achieved by profit and its relation with the other objects by which the profit is affected.

“Sam R. Goodman, aptly observed that “profit is a residual. It is a stick historical term more geared to a reporting function than to decision making.” He further differentiates profit from profitability saying, “Profit is an owner-oriented concept and is tied into the ownership share of national income and provision. On the other hand, as a concept it is akin to levels of profit which lead themselves to be
least number of alternative accounting measure the profit is directly attributable to the existence of a product and identify marginal contributions. It is essentially an internal measure of new wealth creation. Thus, whereas the accounting concept of “profit measures what have been accumulated, the analytical concept of profitability is concerned with future accumulation of wealth.”

Robert Bayer and Donald I. Trawicki observed that “Segment profitability implies segment revenues less segment cost, this cost however may range from variable cost to what is traditionally referred to as full cost.” They further state. “The appropriate measure of profitability and, the appropriate costs will differ depending on the specific purpose for which the information is being used.”

When considered from the accounting point of view profit reflects the excess of earnings over expenses or costs. If the costs are more than earnings it will mean a positive loss.

F.P. Langley, describes, “Profit is not the surplus of receipts over payments but the surplus of revenue over expenses. If total expenses are greater than revenue there `will be loss By revenue it is meant what the business earns in the period under view. Usually what goods or services it has sold.”

(a) Accounting Profitability: Accounting Profitability is measured in terms of business efficiency of a concern and business efficiency is produced by the input-output analysis. Profitability can be computed by measuring the output proportionately to input and comparing relative changes with results of similar other firms or periods.

The income (output) as compared to the capital employed (input) indicates profitability of a firm. This us know as Return on Investment (ROI) or Return on Capital Employed. One of the objectives of a management is to maximize the profitability. The overall profitability ratio has two components i.e. net profit ratio (operating profit/sales) multiplied by turnover ratio (sales/capital employed).

Therefore,

Return on Investment (ROI) = \( \frac{\text{Operating Profit}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Capital}} = \frac{\text{Operating Profit}}{\text{Capital Employed}} \)
Return on Investment is a ‘prime measure’ of management’s capability in handling funds entrusted to it as rewards. Increasing acceptance of this measure as an indicator of performance rests on solid grounds, and, therefore, profit opportunities and performance are viewed in relation to the scale of resources of funds required to produce them. That is, a given amount of “profit return should be evaluated in terms of the percentage profit return on the investment of funds.”

“Moreover, the return on capital used depicts the effectiveness of all the operating decisions, from the routine to the critical, made by management at all levels of the organization form shop foreman to president,” for example;

**Production**: Plant layout, acquisition of automated equipment, product re-design, testing and quality control, purchasing, production and inventory control, employee welfare plan and real location of a plant etc.

**Marketing Decisions**: The marketing plan, hiring and training of salesmen, sales promotion and advertising campaign’s, etc.

**Administrative Decision**: Installation of electronic data-processing equipment and system and the executive development programme etc.

These and many other decisions aimed at improving organizational performance and maximizing profits must be made continually.

**Social Profitability**: By and large, it appears that there is a general consensus that the primary goal of a business lies in maximizing the long term wealth or economic welfare of its members, consistent with social and economic responsibility cost on the business firm by the community in which it operates. C. Means Cardiner rightly observed in this regard, “The darkness of avarice has been dispelled by the light of a new kind of social responsibility.”

By attracting more customers some social objectives reinforce profitability of a business concern; whereas some other social objectives can be directly counteractive. For instance, elimination of pollution may well and direct cost to the company’s operations and reduce its profitability, but it creates social profitability.

Furthermore, consideration of factory environment and its locations, conservation of resources, waste treatment process adopted by company, customer and suppliers needs, labor employment, social pressure as well as market forces including wide community needs are inclusive factors of overall profitability.
Thus, in the words of Earnest Dale, these social objectives “appear to urge the executive to assume an infinitely broad-gauge burden of responsibilities to all of the various public with whom he deals.”

Therefore, it becomes more significant that every company states its personnel, marketing, financial and social objectives clearly and concisely in well-defined format. These objectives must be defined also in such a flexible manner that they are tolerant to the changes for future updates as the nature of real world is dynamic. These objectives must be also published as a guide for all employees. Thus enabling them to know as to what the objectives are and judge how they sway their job at the business concern.

(c) Value Added Profitability: Value Added Profit helps in judging the business efficiency of an enterprise more accurately. It denotes the net value or wealth bent by the manufacturer for a specific time frame. In case of failure in generating wealth no enterprise can survive or grow. An enterprise may exist without making any profit but cannot really survive without adding value. “The enterprise, not making profit, is bound to become sick but not adding value may cause its death over a period of time.”

Thus, value added is a concept broader than profit, which just forms a part of the value added. In fact, “Value added at a particular level of operating capacity and claims as value added can expose the efficiency or inefficiency of a business.”

Investments done in an enterprise comprises shareholder’s investments in its shares, including borrowings from debenture holders, creditors and specialized financial institutions etc. Even after these types of investments if a business doesn’t generates growth i.e. value added then it is treated purely as a misuse of public funds. Thus, conclusively concept of value added directly connected with concept of profitability. Productivity Ratio and Performance of the enterprise can be described by these value-added measures. Productivity Ratio provides help to management to observe that how productivity is increased when the same or better are produced with reduction in resources consumed.

1.1.6 Significance of Profitability

Everything in the world is result-oriented, and a firm too is not an exception to it. So that goal of the firm is to maximize profits. Profits and profitability play the same role in business as ‘blood’ and ‘pulse’ in the human body. The survival of a
human being is not possible in the absence of adequate blood and ability to generate blood. The same may be applied to business. It is very difficult for a firm to survive without prospects and ability to earn adequate profits. Profits and profitability are, therefore, the nerve-knot of a business and without it the existence of a firm is like a body without the back-bone. Lord Keynes has rightly remarked that “profit is the engine that drives the business enterprise.”

Thus, profitability is the most powerful motivational factor in any business. Whether or not a company pursues profit maximization as its objective; the majority of users of accounts will be interested in its profitability, as to how the management will use the resources at their disposal. A profitability objective in this context according to Peter Drucker, measures not the maximum profit the business can produce but the ‘minimum’ is the rate of profit required for the desired type of investment in a enterprise. This means that there must be not only enough profit to yield the capital market rate of return on money which is already sunk in business but also to provide additional capital needed in order to cover the cost of staying in business.

Therefore, the overall objective of a business is to earn at least a satisfactory return on the funds invested in it, consistent with maintaining a sound financial position. The task of management is the maximization of profit. The efficiency of business is measured by the amount of profit earned; the greater the volume of profit, the more efficient is the business considered. Thus, it is the test of efficiency and the measure of control.

1.1.7 Techniques of the Measurement of Profitability

Profitability Measurement is an important aspect for an enterprise and is of equal importance as earning of profit.

The profitability of a business firm can be evaluated or measured from number of perspectives, and there are various quantitative as well as qualitative methods that can be employed for this purpose.

The following major techniques may be used to measure profitability.
Ratio Analysis

Ratio Analysis is an analysis of financial statements based on ratio. It is a powerful analytical tool to measure performance of an enterprise. It implies the process of computing, determining and presenting the liaison of items and group of items in the financial statement of the company. V.Wason points out “Ratio analysis is an art of determining relationship between different components of financial statement of so as to afford a meaningful understanding of profitability and solvency of the business concern”.  

Ratio Analysis technique follows four steps process respectively determination of the accounting ratio to be used, comparison of ratio with the standard set and interpretation. Determination of the fact that which ratio is to be used has to be taken by an analyst solely and then he computes it and compares it with the standards but no such standards still setup by Indian Industries till date. Thus, Interpretation of ratio requires vigilant & comprehensive study and sound judgment from analyst.

Significance of Ratio Analysis: Although, the importance of ratio analysis depends on the purpose for which it is computed, but some of its significance can be defined in following pointers -

(a) Simplification of Accounting Data.
(b) A useful tool in the hands of management.
(c) Useful in judging the financial position and managerial efficiency.
(d) Helpful in comparative study.
(e) Estimate about the trend of business.

Limitations of Ratio Analysis: Ratio analysis suffers from a number of draw backs namely:

b. Price-level changes between two periods.
c. Insignificance of a single Ratio.
d. Window Dressing.
e. Qualitative Aspect ignored.
f. Different meaning of the terms.
g. Ratio analysis conveys observations.
h. Ratio may be misleading.
i. Different procedures and practice followed by different firms.

j. Different accounting periods.

k. Every firm differs in age, size, etc.,

**Classification of Ratios:** Ratio can be classified into two different categories depending upon the basis of classification.

1. The traditional classification.
2. Classification based on nature of ratios.

(1) **The Traditional Classification:**

Traditional Classification of Ratio is based on the financial statements to which determinates of ratio belongs. On this basis it could be classified as below:

(A) **Statement of Profit and Loss Ratio:** Ratio are calculated on the basis of the items of Statement of profit and loss only.

(B) **Position Statement Ratio:** Ratio are calculated on the basis of the figure of Balance Sheet only.

(C) **Compositive Ratio:** Ratio is calculated on the basis of Statement of profit and loss as well as the balance sheet.

(2) **Classification Based on Natural of Ratio:**

To get the correct view of the profitability and financial soundness of a firm and to make a systematic study, Ratios are classified as under:

(A) **Liquidity Ratio:**

This ratio indicates liquidity position of a company besides offering better measures to immediately evaluate the short term liquidity of the firm. Current ratio, liquidity ratio and quick or acid-test ratio are included in liquidity ratio.
(B) Leverage Ratio OR Structural Ratio:-

As its name implies Leverage or Structural ratio guides the long term financial position of the firm. It indicates the funds provided by the long term creditors and owners. It is computed from balance sheet items. Debt Equity Ratio, Gearing Ratio and Debt to total capital ratio are types of leverage ratio.

(C) Activity Ratio / Efficiency Ratio:-

The term Activity or Efficiency ratio is self-descriptive in its sense. It concludes that – “How efficiently the assets of a business concerns are managed?” These ratios define relationship between level of sales and the investment in various assets.

Activity ratios include (1) Inventory turnover ratio (2) Receivable turnover ratio (3) Payable Turnover Ratio (4) Debtors Collection period. (5) Average Payment Period.

(D) Coverage Ratio:-

Coverage Ratio pin-points the connection between what is actually available from operations of the firms and claims of the outsiders. It includes (1) Interest Coverage Ratio (2) Dividend Coverage Ratio (3) Total Coverage Ratio.

(E) Profitability Ratio:-

Profitability Ratio has become the powerful tool to gain exact details about the overall efficiency of the management. It helps in decision making of many business entities like Creditors, Share Holders, Prospective Investors, Bankers, Financial Institutions and Government etc. as all requires the analysis of profitability of an enterprise for the sake of their own interests. Thus, following profitability ratios can be computed to satisfy the various needs of all inclusive business entities.

Important Profitability Ratio are; (1) Gross Profit Ratio. (2) Operating Ratio. (3) Operating Profit Ratio. (4) Net Profit Ratio. (5) Return on Investment. (6) Earning Per Share (7) Dividend Per Share
[ ii ] Comparative and Common Size Income Statement Analysis:–

Profit Analysis is quite valuable when done on comparative basis, as it gives an insightful extract from income statements used over a period of consecutive years. It is simplest technique for analyzing profit. It is done by taking the figure of net sales equal to one hundred and the percentage of individual items is computed similarly.

[ iii ] Value Added Analysis:–

Value Added Analysis involves preparation of two statements one to show the generation of value added and the other is to application of value added. Value generated is computed by subtracting the total of cost of bought-in-materials and services from the amount of sales plus income from services, which is exactly called Gross Value Added.

[ iv ] Other Techniques of Measurements:–

Besides all the aforementioned well used techniques, various other statistical techniques are also used to provide more accurate, reliable and scientific measurement of profit analysis such as moving average, range, standard deviation, index numbers, regression, correlation, chi-square test, Z-score analysis etc. To better representation and fast adoption diagrams and graphs are also often used in the study of profitability.

1.1.8 Objective of Profitability Analysis:

(a) Accounting Profitability

State of Profitability is “variable” as the multiple factors in which business operators including internal and external are dynamic in nature. Determination of profitability by an accountant or analyst is quite ambiguous to a reading and monitoring temperatures or humidity by a meteorologist.

Just as the weather of a day is recorded in order that future prospect may be forecasted, so by analyzing and measuring the profitability of any enterprise its future course of action and prospects can be planned and chalked out on the basis of its present performance.
Investment Figure is the key point to focus on carefully while measuring profitability. There are several techniques and associations between different types of investments and incomes which have been established by accountants to appropriately compute the profitability of investments.

In the words of Ernest W. Walker and William H. Banghu, “Business enterprises are organized to earn a profit and to realize these objective policies are formulated and promoted in each of the functional area of distribution, production and finance. To ascertain it and how well the firm has been achieving its profit objective, financial management employs various techniques of profit measurement. However, before a profit measurement can be made, a standard level of achievement should be established in order to have a means of determining to what degree, the firm has attained its goal. Once a standard has been established, actual performance is compared with it. In the event, the analysis reveals that the goal has not been realized, action should be initiated to raise basic policies and procedures”.

The overall profitability ratio has two components i.e., net profit ratio (operating profit/salesX100) multiplied by turnover ratio (sales/capital employed). Therefore,

\[
\frac{\text{Operating Profit}}{\text{Capital Employed}} \times 100 = \frac{\text{Operating Profit}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Capital Employed}} \times 100
\]

It’s a proven strategy and recommendation for a management to improve its net profit and turnover ratio, it should focus on maximizing its profitability. Margin earned in each sale in terms of percentage is referred as profitability and net profit and turnover ratio shows the utilization or rotation of the capital to generate sales.

The possible ways of reducing the investment in fixed assets can be done by selling or leasing back that premise which is not required, disposing of idle plants and equipment, selling of ‘unprofitable departments’, and transferring the assets of unprofitable departments to profitable ones.

Likewise reduction of investment in current assets may be done in the following ways:

(a) Reduction investment in inventories by shortening the production time, improving material handling equipment’s or methods, reducing waiting time between each operation and reducing the level of inventory required by better
inventory management, reducing investment in accounts receivable by improving or 
tightening the credit and collection policy, in case debtors are taking undue 
advantages of the credit system, and by investing the surplus ‘cash’ in the 
marketable securities. Thus, the assets put into maximum utilization and 
‘profitability’ can be improved.

On the other hand, the profit margin can be increased in three ways: First, by 
increasing sales more than operating expenses; This can be made possible by 
increasing sales of that product which is yielding a favourable return or by 
increasing the selling price per unit, without corresponding decrease in sales volume, 
if the company holds the position of monopoly in the market for that product.

(b) By reducing the cost of sales, i.e. operating expenses, more than sales, it is 
possible by using various means of cutting operating expenses, such as cost control 
and cost reduction techniques, without suffering a corresponding reduction in sales. 
This will increase operating earnings and thus return on investment.

Obviously, both the sequences must be satisfactory. If one sequence remains 
satisfactory and not the other, then return on investment will go down. Similarly, if 
the quality of one sequence declines and it is essentially compensated by 
improvement in other sequence, the return on investment will remain the same.

Therefore, there are many opportunities for the decisions of accountants and 
the management to influence the reported profit from year to year with a view to 
serving a variety of immediate ends, because the accounting profit figures are only 
as good as the judgment of the person who uses them.

The existence of different methods of evaluating the assets can also affect the 
measurement of profit. For example, one firm may follow a straight line method of 
charging depreciation whereas another may charge depreciation on the diminishing 
value method. Depreciation affects the net margin, and ultimately also the overall 
profitability of a firm.

(b) Value-Added Profitability

The concept of value added is a concept broader than the concept of profit. 
Value-added is a basic and broad measure of performance of an enterprise. In India, 
the presentation of value-added statement is neither statutory nor deemed to be an 
obligation which would otherwise have compelled the companies to compute the 
value added to disclose such statements in their annual reports. Nevertheless, a few
companies both in the private as well as in the public sector have made attempts and included value-added statement in their annual reports. In the absence of uniform policies and practices, the measurements of value added are subject to numerous anomalies and fallacies.

Even then, Profit and Loss Account figures are base for computation of Value-Added, Value-Added is an excess of turnover plus income from services over the cost of bought-in materials and cost of services.

The term ‘turnover’ means the gross sales of goods plus duties and sales tax minus the amount of returns, goods used for self-consumption, commission, rebates and discounts etc. The term ‘income from services’ includes income in the form of dividends from subsidiary companies, rent and compensation and other miscellaneous income etc. The term ‘cost of bought-in of materials’ includes the cost of materials consumed, the cost of merchandising of materials consumed and the cost of stores and spares parts consumed during the process of manufacture. The term ‘cost of services’ includes the cost of procuring services, power, fuel, repairs and maintenance, bank commission, insurance premium, advertising and publicity, postage and telephones, printing, auditing, legal charges and traveling expenses etc.

1.1.9 The Du-Pont Control Chart

This Chart is originally developed by E.I. Du Pont De Nemours and company wilmington, USA. Which came into existence in 1921, when Irenee Du Pont was the president of the company for evolution of inter-industry, inter-corporation and inter-product profitability, the system is considered to be an operationally useful tool. To derive the attention of management to desirable and undesirable concerned trends it develops a series of chart utilizing the ratio inter-relationship. Using such a system the changes in the performance can be easily judged, as soon as a company succeeds in developing reasonable standards of performance regarding the various ratios. To isolate the elements getting into the final figure in order to appraise the effect of individual factor on the performance is the main objective if Du Pont System.
The sales, when divided by capital employed give the capital turnover ratio i.e. the first tier. Capital employed is bifurcated as fixed capital and working capital. Fixed capital consists of land and building, tools, fixtures, plant & machinery etc. and working capital is that which is computed by deducting current liabilities from current assets. The sum total of cash balance, accounts receivables and inventories are current assets. The profit margin given by profit divided by sales is beginning of
the second tier. Sales less cost of sales is the profit and aggregate sum of cost of goods sold and expenses like general work expenses, administrative expenses is the cost of sales.

The separate forms contributing to profit is the main concentration of the two-tier approach. Improvement can be accomplished by either by a better relationship between expenses and sales, measured by profit margin sequence or by more effective use of available sources i.e. capital, measured by turnover sequence. “For providing standards of evaluation, calculations are made on the ratios of return on investment, assets turnover and profit margins for comparable companies” 22 James C. Van Home correctly remarks. “Profitability ratios are of two types; those showing profitability in relation to sales, and those showing profitability in relation to investment.” 23 He further points out, “With all the profitability ratios, comparison of a company with similar companies are extremely valuable. Only by comparison are we able to judge whether the profitability of a particular company is good or bad and why. Absolute figures give some insight, but it is relative performance which is most important” 24 - this statement clearly emphasis the importance of profitability.

1.1.10 Management Achievement Chart

Kenneth R. Rickey 25 has portrayed ‘Management Achievement Chart’ for evaluation of total management performance. “The Management Achievement Chart and Profit Performance chart have been designed after making modifications in Du Pont Chart,” 26 The above chart help in analyzing performance of the management as well as in goal establishment and performance measurement against them.
As in Figure 1.2 Financial management performance and operational management performance are the two sections in which the Management Achievement Chart is bifurcated. The combination of both indicates the total management performance. The total management performance is given as percentage of shareholder investment (Net Worth) as net profit. This can be derived from the above chart in the form of equation as follows:

Total Management = Financial Management Performance x Operational Management Performance

OR

Total Management = S.V C O.P N.P C.E
Performance C.E S.V C O.P N.W

i.e. Total Management = N.P
Performance N.W.
Where,  
S.V = Sales Volume  
C.E. = Capital Employed  
C = Contribution  
O.P. = Operating Profit  
N.P. = Net Profit and  
N.W. = Net Worth

The performance of financial management is calculated as the product of financial operation ratio and financial leverage ratio. Dividing the net profit by operating profit, the financial operation ratio is computed. After making adjustment for interest, taxes, profit or loss on sales of securities, dividend income etc. net profit is arrived. The financial leverage ratio is gained by dividing net worth by capital employed and it is determined by the corporate financial policy. Moreover, the financial ratio is reduced by interest on debenture.

Next section relating to performance of operating management is the product of profit volume ratio, capital turnover ratio and margin of safety the excess of sales over break-even sales is the margin of safety and is calculated by dividing the operating profit by contribution. The calculation of contribution given by sales less variable costs is made clear by way of profit performance chart is figure 1.3. Break-even-point is gained by the profit volume ratio, which depicts the amount on sales after sales. The ratio is gained by dividing profit contribution by sales volume and expenses the amount made on each rupee of sales before deduction of fixed cost, financing cost and taxes in times of percentage.

It is advisable that all the five relationship should be found separately in order to approach at the final figure as important for better decision although, total management performance can directly obtained by dividing net profit by net worth. For better understanding of Management Achievement Chart and detail expression of the terms mentioned in the ratios, Profit performance chart must be refereed to which is drawn in figure.
Figure 1.3
PROFIT PERFORMANCE CHART

Sales Volume

- Direct Costs

= Contribution

- Period of Fixed

= Operating Profit

- Interest and Taxes

= Net Profit

- Dividends

= Retained Earnings

Direct Material
Direct Labor
Variable Expense
However, Management Achievement Chart is regarded as the responsibility accounting in action. As in practice, after the targets set on the basis of Management Performance Chart are agreed upon, the objectives are accordingly formulated for accounting and finance department. Thereby, responsibility is imposed upon each manager for controlling his respective costs.

1.1.11 Flaws of Profitability

The evaluation of overall business performance is full-fledged measured by profitability. Yet a management quite often comes across certain obstacles while practicing it. The following are some of the weak points that emerge in profitability analysis:

(i) The better analysis of the techniques of profitability is possible only if a comparative study with the part results of the business or results of business of same type is done. Only a glimpse of the past performance is provided by this type of comparative study. Time factor, market conditions management policies etc., are factors on which forecasts based on past trend are based and it results in defective planning and unexpected results. Difficulties are also created when the comparison of performance is between two companies operating under different situations.

(ii) In order to present a better position of a firm than what actually it is by manipulation of accounts such that it concedes the vital facts, the profitability becomes a victim of windows dressing. Example a high total assets turnover indicates the efficiency of management in making good use of tangible assets. Misleading figure of high total assets turnover ratio are the results of assets with lower book value and lower depreciations.

(iii) Profitability is bound to be a carrier of human limitations. Since the planning of the future course of action is done by the management of organization after interpreting the already achieved results. Different management favours different course of action may be problematic, example some managers believe in adopting conservative policy, while some others prefer being liberal with respect to business
policies. Probably the analysis and the interpretation is purely a matter of managerial skills.

(iv) Profitability analysis may consider only as a starting as gives only a part of information required for decision making. The information gained from the profitability analysis combined with collection of information from other sources must be used for ensuring comprehensive analysis as the only information gained by profitability analysis cannot be interpreted properly. Profitability analysis must looked upon as approaching to end not the end itself.

(v) No fixed norms can be laid down for the ratios. As ideal ratio for assets turnover is 2 times but in case of capital intensive industries 1.5 to 2 times is also admissible. Similarly, it is also considered ideal if current assets are twice the current liabilities. But in case of industries capitally of acquiring needful funds form bankers may be perfectly ideal even if current assets are equal to current liabilities.

(vi) Due to price level change, the interpretation and comparisons of profitability becomes less reliable. It is assumed that the accounting figures on the basis of which profitability analysis is made to remain constant. In reality, changing prices over years are constantly affecting accounting earnings. As two companies set up in different years on plant and machinery of different ages cannot be accurately compared, which again contributes to misleading results. The techniques of current cost accounting and current purchasing power prove somewhat helpful in this respect.

(vii) The ratio followed for depreciation policy, provision for bed debt’s, estimate like with regards to the life of an assets etc. are the data on which the profitability analysis is usually based. Hence, it is not a matter to be excited for an analyst that what he interpret and calculates because the actual results are bound to be probable based upon this calculations.

(viii) Practically, certain terms cannot be distinguished in terms of definitions. Although there are various perspectives about what should be included in shareholder's equity, capital employed or whether, intangible assets are to be included in calculating rate of return on investment etc. thus profit is also considered
differently to different peoples and poses difficulty in computation and comparisons of actual profitability.

(ix) Composite figures of various figures depict the Profitability which in turn largely based on ratios of different kinds. Where, figures are pertaining to time period, an instant of time, and some of them are in terms of averages. Nelcom Tom and Miller Paul have made wonderful remarks in the respect, “A man who has his head in the over and his fact in the ice-box is on the average comfortable.” Many figures used in ratios analysis are not of greater importance as they doesn’t impact on significant factors. Furthermore, balance of accounts at one moment of day is represented in balance sheet figures. It indeed provides a coarse idea of balance during the year and is not the true illustrative of typical balance.

(x) Profitability analysis is only a quantitative analysis that prohibits the importance of managerial skill foretell and plans for profitability correctly, contribution of manual efforts and efficiency is a lot in achievement of projected level of profits external factors like market conditions, products demand, business cycle etc. The terms which cannot be expressed in monetary terms are not depicted by it.

“It is unfortunate that the word 'profit' is looked upon as a term of abuse since some firms always act to maximize profits at the cost of employees, customers and society.” Profits are of greater significance and must be given priority by management of a concern but its every action must not be driven by the same while disregarding the social consequences.

1.2 History and growth of Cement Industry in India

1.2.1 Introduction

Cement Industry one of the major and oldest established manufacturing industries in the modern sector of the Indian economy. It is an indigenous industry in which the country is well-endowed with all the necessary raw materials, skilled man-power, machinery, equipment's, technology and know-how. It is one of the key, capital-intensive, energy and transport-intensive industries in India. It is both a basic and consumer industry. A country’s economic growth is defined by the growth
of its core sector activities. Construction is one such vital area where a nation’s progress is shaped by the bridges, roads, buildings, factories, flyovers, airport terminals, railway stations, office complexes, educational hubs, hospital etc., which are all part of its future design all held by the spell of the power of cement. Thus it is regarded as a major nation building industry, whose importance in a developing economy can never be over-emphasized.

Therefore, with the ushering in of the era of planned economic development in India, cement industry has been assigned an important role and has been accorded a pride place in the scheme of priorities for development of industry. But unfortunately with the massive development programmes, envisaged especially in the rural, industrial and urban sector, the demand for the product has outstripped its availability and is expected to rise more steeply in the future. The gap between its supply and demand has been steadily and in fact it seems to be an ever-widening one. And if the industry is in the limelight in recent years, it is because of the serious shortage of the product, which has become the most profile begetter of black money and public corruption.

The cement industry is one of the most energy-intensive sectors within the Indian economy. Clinker production is the most energy intensive step, accounting for nearly 75 percent of the energy used in cement production. In India, an estimated 90-95 per cent of the thermal energy requirement in cement manufacturing is met by coal. The remaining is met by fuel oil and high-speed diesel oil. Generally, the cement industry in India on an average requires 90-105 units of power in the wet process, and 100-110 units of power in the dry process to produce one tons of cement. The energy costs and cement freight costs are the two most important elements in the cost structure of a cement company.

1.2.2 History of Cement

From the history it is interesting to know how the cement is made today. People wanted a material that would muddle stones into a solid, formed figure, since civilizations paced in the earth. For this purpose the Assyrians and Babylonians used clay and the Egyptians discovered lime and gypsum mortar a binding agent for constructing pyramidal structure. Some more improvements were made by Greeks
and finally cement was developed by Romans that produced remarkably durable structures.

It was found that the mining of slaked lime with Pozzolana, a volcanic ash from Mount Vesuvius is the secret of success of making cement by romans. The cement produced by this process was capable of hardening under water. This art was vanished and it was not rejuvenated until the scientific spirit of inquiry revived that secret of hydraulic cement (cement that will toughen under water). In the Roman Forum building foundations were mostly constructed with a form of concrete, located up to a depth of 12 feet. Examples of Roman architecture in which cement mortar was used are the giant Basilica of Constantine and the great Roman baths built about 27 B.C. Portland cement today is a predetermined and sensibly proportioned chemical mixture of calcium, silicon, iron, and aluminum.

Portland cement replaced Natural cement, which is a predictable, known product of steadily high quality. Portland cement produced in the plant established by Aspdin in Wakefield was used in 1828 in the construction of the Thames River Tunnel. Almost 20 years later J.D. White and Sons established thriving factory in Kent which was greatest period of early expansion, in England as well as in Belgium and Germany. In 1859, Portland cement was used to construction the London sewer system. Thomas A. Edison won forerunner in the advance development of the rotary overs. In his Edison Portland Cement Works in New village, in 1902, he introduced the first long furnaces used in the industry which was 150 feet long in contrast to the customary 60 to 80 feet. Now a day some of furnaces are more than 500 feet long. Analogous enhancement in crushing and grinding apparatus also influenced the quick increase in production. Since crunching process ingest most the energy, various technological development in crunching system took place like ball mill/vertical roller mill/Roller presses. Blending takes place in storage tower with air blown to aerate the contents. Many others new designs were also established to increase the proficiency of mixing.
1.2.3 Indian Cement Industry

The history of the cement industry in India dates back to the 1889 when a Kolkata-based company started developing cement from Argillaceous. In early 1900s, the industry started getting structured shape. In 1914, in Porbandar, India Cement Company Ltd was established with a capacity of 10,000 tons and production of 1000 installed. In the year 1956, the Indian cement industry observed the price and distribution control system and established a model to guarantee unbiased price for consumers as well as manufacturers. Government sanctioned new manufacturing units later in 1977, to put a higher tag for their products. After few years, government introduced a three-tier pricing system with different pricing on cement produced in high, medium and low cost plants.

In any country the Cement industry plays a key role in the development of the nation. Indian Cement industry was controlled and supervised fully by the government. After the economic reform, however, it got liberation at a large extent. But still in India government interference is still evident especially in the pricing. All though India is the second largest producer in the world it falls in the list of lowest per capita consumption of cement with 125 kg. A poor rural person who leaved in mud huts and cannot afford to have the commodity is the basic reason behind this. Regardless of this fact the demand and the supply of cement in India has grown up. There is always a large possibility of enhancement of cement industry, in a fast developing economy like India.

There are two clear discrete Phases. The first phase has been a long phase of seven-and-a-half decades of the “Full Control” since 1914 till the “Complete Decontrol” in the year 1989. Second Phase is the Post-Decontrol period, which was relatively small of two-and-a-half decades.

**Phase I: Full Control**

There was a continuous deficit in the infrastructure support – power, coal and railway wagons in the ‘Full control’ phase. Due to Government policies at time the entire industry was hit hard, whereas it provided some reliefs at some times as well. However, due to large data exposer the cement industry had to struggle for its existence. By 1924 the capacity reached to mere 6.60 lakh tones. 23 cement plants were in operation with a total capacity of 2.2 Mt., at the time of India’s partition in 1947. During partition 5 plants went to Pakistan while 18 plants remained in India.
which had an agreement capacity of 1.47 Mt. As India was under British rule and quite naturally the policies were made according to Britain’s definitions of priorities.

The Government machinery then made efforts to mend the help of cement Industry. Under defense of India rules between August 1942- September 1946, it was to control in respect of price and distribution followed by informal control by fixing of prices by managerial orders between October 1946 and June 1956.

Through tariff Commission enquiries (1953, 1958, 1961 and 1974.), this trend seemed to be unchanged. By the Government authorities the cement prices were seen to be kept low effectively and ‘Too little Too late’ the reliefs were observed to be offered.

Significantly, the performance of the cement industry was unpleasantly affected regulating its own growth and development. During this period there was a severe shortage in the supply of cement with the consequent wild black-marketing, filling the pockets of anti-social elements, corruption and more permanently scant cement supply to the projects, including housing and also for small consumers for repair. It was a dominant Permit Raj.

**Phase II : Complete Decontrol**

Preliminary based on Dr. A .K. Ghosh committee’s recommendations, which was the beginning of loosening hold of Government controls, and the real relief started coming in with the dispensation of partial decontrol in 1982. In the history of the cement industry it was very important milestone. The cement industry scribbled and executed an enormous and comprehensive rejuvenation program encouraged by the step. This included the conversion of wet and Semi-dry process furnaces to energy-proficient dry process scuffing of small capacity out-dated furnaces. Captive power plants to segregate the industry against inconsistent power cuts and poor power quality, etc. By these steps positive results were approached. The capacity reached 61.74 Mt. within a short span of over six years which was more than two-and-a-half times in 1989-90 where as it was 23.30 Mt. in 1982-83. The reforms of 1991 also acted as a boost. In 1990 the ‘BUYERS’ Market appeared in cement.

The exponential growth posted by the cement industry took 83 long years to approach the first 100 Mt. capacity, the period was substantially compressed to 11 years and 3 years for adding the second and third 100 Mt. mark respectively. The
cement industry reached over 350 Mt. cement capacity and 251 Mt. production in 2012-13.

The first initial push was given by the world-war I to the Indian cement industry and the industry started growing at a fast rate in terms of production, manufacturing units, and installed capacity. This stage was referred to as the Nascent Stage of Indian Cement Company. To propagate cement consumption as well as to make up public awareness on the utility of cement, in 1927 concrete Association of India was established. Cement production during the year 2009-2010 from large plants was recorded 160.75 million tons as against 181.60 million tons in the previous year. It employs a large number of workers, which is over 0.12 million persons and supports another 1.2 million persons engaged indirectly.

<table>
<thead>
<tr>
<th>Year</th>
<th>Capacity at The Year End</th>
<th>Cement Production</th>
<th>Capacity utilization (%)</th>
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<tr>
<td>Annual Plans</td>
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<tr>
<td>1990-91</td>
<td>59.31</td>
<td>45.75</td>
<td>77.13 (77)</td>
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<tr>
<td>1991-92</td>
<td>61.73</td>
<td>50.61</td>
<td>81.98 (82)</td>
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<td>VIII Plan</td>
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<td>1992-93</td>
<td>65.36</td>
<td>50.72</td>
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<td>1993-94</td>
<td>71.68</td>
<td>54.09</td>
<td>75.46 (75)</td>
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<td>1994-95</td>
<td>78.52</td>
<td>58.35</td>
<td>74.31 (74)</td>
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<td>87.18</td>
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<td>74.03 (74)</td>
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<tr>
<td>1996-97</td>
<td>96.68</td>
<td>69.98</td>
<td>71.34 (71)</td>
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<td>IX Plan</td>
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<tr>
<td>1997-98</td>
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<td>76.74</td>
<td>75.28 (75)</td>
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<td>1998-99</td>
<td>107.98</td>
<td>81.67</td>
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<td>1999-00</td>
<td>111.16</td>
<td>94.21</td>
<td>84.75 (85)</td>
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<td>76.76 (77)</td>
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<td>2001-02</td>
<td>134.94</td>
<td>102.40</td>
<td>75.88 (76)</td>
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X Plan

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<td>2002-03</td>
<td>139.38</td>
<td>111.35</td>
<td>79.88</td>
<td>(80)</td>
<td>145.95</td>
<td>117.50</td>
<td>80.50</td>
<td>(81)</td>
<td>153.60</td>
<td>127.57</td>
<td>83.05</td>
<td>(83)</td>
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<td>2003-04</td>
<td>160.00</td>
<td>141.81</td>
<td>88.63</td>
<td>(89)</td>
<td>167.79</td>
<td>155.64</td>
<td>92.75</td>
<td>(93)</td>
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XI Plan

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<tr>
<td>2007-08</td>
<td>198.10</td>
<td>168.31</td>
<td>84.92</td>
<td>(85)</td>
<td>219.51</td>
<td>181.61</td>
<td>82.72</td>
<td>(83)</td>
<td>215.78</td>
<td>160.75</td>
<td>74.49</td>
<td>(74)</td>
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</table>

*ACC & Abuja Cement data included


Table-1.1 shows that commencing with a capacity of 59.31 million tons in 1990-91; cement industry progressed to a capacity of 215.78 million tons in 2009-10. Similarly, production has increased from 45.75 million tons to 160.75 million tons during the same period. Capacity utilisation, which was 77.13 percent during 1990-91, has slightly decreased to 74.49 percent in 2009-10. The Eighth Five Year Plan (2002-2003 to 2006-2007) estimates projected the maximum utilisation of capacity of 93 percent in 2006-07.

Table - 1.2

REGION-WISE CAPACITY AND PRODUCTION (Million Tone)

(Large Plants)

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>North</td>
<td>31.12</td>
<td>95.34</td>
<td>53.77</td>
<td>95.05</td>
<td>47.47</td>
</tr>
<tr>
<td>East</td>
<td>24.22</td>
<td>20.05</td>
<td>82.78</td>
<td>24.07</td>
<td>87.06</td>
</tr>
<tr>
<td>South</td>
<td>51.09</td>
<td>44.88</td>
<td>87.84</td>
<td>54.09</td>
<td>92.71</td>
</tr>
<tr>
<td>West</td>
<td>29.08</td>
<td>24.93</td>
<td>85.72</td>
<td>27.28</td>
<td>93.16</td>
</tr>
<tr>
<td>Central</td>
<td>24.49</td>
<td>22.28</td>
<td>90.97</td>
<td>24.04</td>
<td>95.01</td>
</tr>
<tr>
<td>Total</td>
<td>160.00</td>
<td>141.81</td>
<td>167.79</td>
<td>155.64</td>
<td>198.10</td>
</tr>
</tbody>
</table>

[32]
Source: CMA, Cement Statistics, New Delhi 2010

* Excludes data from two cement companies that discontinued Membership with CMA during 2009-10.

Table-2 shows that the average capacity utilization for central region has been 90 to 96, average 93 per cent. It has been recorded 75 to 95 per cent, average 85 per cent, for northern region and 79 to 87 per cent, average 83 per cent for eastern region. These three areas have registered higher capacity utilization in comparison of industry average of 83 per cent. The other areas capacity utilisation has been recorded below the average. The average capacity utilization for western region has been 79 per cent and for southern region 72 per cent.

1.2.4 International Cement Industry Perspective

At present India is the second largest cement producer in the world with 272.0 million tones of cement capacity as on 2013. In 2013, global cement production was reported at 3434.2 mm tones, with China accounting for nearly 68.69 Percent of the total output of cement in the world, India was the second largest producer with 7.92 Percent of the total output of cement in the world.

| Table - 1.3 |
| Main world producers |
| Country | Cement Production ( Million tons) | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | Percent to total % In 2013 |
| China | 1236.8 | 1361.2 | 1388.4 | 1644.0 | 1881.9 | 2063.2 | 2137.0 | 2359.0 | 68.69 |
| India | 159.0 | 170.5 | 185.0 | 205.0 | 220.0 | 270.0 | 239.0 | 272.0 | 7.92 |
| European Union | 264.8 | 271.0 | 251.8 | 201.3 | 191.0 | 195.5 | 159.2 | 157.2 | 4.58 |
| USA | 98.2 | 95.5 | 86.3 | 63.9 | 65.2 | 68.6 | 74.0 | 77.0 | 2.24 |
| Brazil | 41.4 | 45.9 | 51.6 | 51.7 | 59.1 | 63.0 | 68.0 | 71.9 | 2.09 |
| Turkey | 47.4 | 49.3 | 51.4 | 54.0 | 62.7 | 63.4 | 63.8 | 70.8 | 2.06 |
| Russian Federation | 54.7 | 59.9 | 53.5 | 44.3 | 50.4 | 56.1 | 53.0 | 55.6 | 1.62 |
| Japan | 69.9 | 67.8 | 63.0 | 54.9 | 51.7 | 51.5 | 59.2 | 61.7 | 1.8 |
| Korea, Rep. | 49.2 | 52.2 | 51.7 | 50.1 | 47.4 | 48.2 | 46.9 | 47.3 | 1.38 |
| Saudi | 27.0 | 30.3 | 37.4 | 37.8 | 42.5 | 48.0 | 43.0 | 48.0 | 1.4 |
|---------------------|------|------|------|------|------|------|------|------|------|------|-------|------------------------|
| Arabia              |      |      |      |      |      |      |      |      |      |      | 47.0  |                       |
| Indonesia           | 33.0 | 35.0 | 38.5 | 36.9 | 39.5 | 45.2 | 53.5 | 47.0 | 1.37 |      |       | CEMBUREAU 2013         |
| Mexico              | 37.9 | 38.8 | 37.1 | 35.1 | 34.5 | 35.4 | 36.2 | 37.0 | 1.08 |      |       |                       |
| Germany             | 33.6 | 33.4 | 33.6 | 30.4 | 32.3 | 33.5 | 32.4 | 31.5 | 0.91 |      |       |                       |
| Italy               | 47.8 | 47.5 | 43.3 | 36.4 | 34.4 | 33.1 | 26.2 | 23.1 | 0.67 |      |       |                       |
| France              | 22.0 | 22.1 | 21.2 | 18.1 | 18.0 | 19.4 | 18.0 | 17.5 | 0.51 |      |       |                       |
| Canada              | 14.3 | 15.1 | 13.7 | 11.0 | 12.4 | 12.0 | 12.5 | 12.1 | 0.35 |      |       |                       |
| Argentina           | 8.9  | 9.6  | 9.7  | 9.4  | 10.4 | 11.6 | 10.7 | 11.9 | 0.35 |      |       |                       |
| South Africa        | 13.1 | 13.7 | 13.4 | 11.8 | 10.9 | 11.2 | 13.8 | 14.9 | 0.43 |      |       |                       |
| Australia           | 9.2  | 9.2  | 9.4  | 9.2  | 8.3  | 8.6  | 9.8  | 10.5 | 0.31 |      |       |                       |
| United Kingdom      | 12.1 | 12.6 | 10.5 | 7.8  | 7.9  | 8.5  | 7.9  | 8.2  | 0.24 |      |       |                       |
| Total               | 2280.3 | 2440.6 | 2450.5 | 2613.1 | 2880.5 | 3146.0 | 3164.1 | 3434.2 | 100.00 |       |       |                       |

Source: CEMBUREAU 2013

**Figure 1.4: Main World Producers Cement**
However, there are some dark corners also. The capacity utilization is still below three-fourth. The prices record increase due to high capacity utilization and narrowing gap of demand supply. The average capacity utilization for western Region and Southern Region are below the industry’s average. Though India is the second largest cement producer in the world, it is amongst the lowest per capita consumer of cement. In India per capita cement consumption is 130 kg, which is far below the world average of approximately 355 kg.

1.2.5 Demand of Indian Cement in the overseas Market

Currently, An unprecedented pace of growth has been observed in the cement industry of India due to hardcore efforts made by government of India for the development and growth of Infrastructure projects, housing facilities and road networks. Today, with a total capacity of 151.2 Million Tones (MT) India has gained second place in the largest cement producers in the world, after China. Further acceleration in the tempo of growth is being reported in the coming years. In fact, in Financial Year 2011 , India would rise in the cement production for an estimated 236.16 MT.

1.2.6 Future Outlook

A recent report has been published by research company RNCOS titled 'Indian Cement Industry Forecast to 2012'.The report has found that, even in the tough conditions of economic turbulence, Indian cement industry sustained its growth rate .It further stated that, in the backdrop of the government backed construction projects almost every cement major expanded their installed capacity as, these projects have created strong demand for cement in the country.

The report forecasted that the cement production is expected to increase above 9 per cent year-on-year during 2010-11 against the previous fiscal year. The research report has also 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 per cent during 2011-12 to 2016-17 to reach 407 Million Tons.
1.2.7 Contribution of Indian Cement Industry in the Indian Economy

In India’s GDP, role of cement companies is of greater significance as it boosts the economic development of the country. It is one of the oldest sectors in India. With the immense growth in housing and infrastructure development along with construction of transportation systems drives this industry. There is a significant raise in the demand of cement in India as Government and Private Builders increased outflow in infrastructure sector being the key raw material in construction industry. This rapid growth and positive aspects of the forecast’s influenced to invest many giant enterprises/companies. To fulfill the growing demand of cement at least 125 cement plants by major companies including 300 other small scale cement manufacturers have been setup in India. Cement industry being one of the vital industries have gained its reputation by contributing in the nations socio-economic development. Countries economic growth has been indicated by the total utilization of cement in a year.

With an unparalleled growth achievement of over 9% for three consecutive successful years between 2005-06 and 2007-08, it has also faced challenges aroused by slowdown in Indian Economy due to the Global Financial Crisis of 2008-09 and
currently under the swift recovery phase. Continuous downward drift in Gross Domestic Product (GDP) growth from 8.4% in 2010-11 to 6.5% in 2011-12 have been noted and to lower than 5% for two consecutive years, i.e. 2012-13 and 2013-14. GDP growth in the year 2013-14 was 4.7% as against 4.5% in the previous year. First time in last 25 years sub-5% growth was witnessed during two successive years.

Persistent uncertainty in the global outlook, caused by the crisis in the Euro area, and general slowdown in the global economy are some major causes for such a low growth, which are further compounded by domestic structural constraints and inflationary pressures and cyclical slowdown in both global and domestic economics.

Various segments of the Industry have been impacted by this slow growth rate. Industrial growth dropped to 0.4% in 2013-14 against 1% in 2012-13, according to data presented by Central Statistics Office (CSO). To emulate the peak growth achieved in the recent past, revival of industry may be longer and needs stronger initiatives of all stakeholders.

With growth averaging 0.2% per annum, manufacturing sector is disappointed particularly from last two years. During 2013-14 growth rate in manufacturing sector was negative (-0.7%) as compared to 1.1% in 2012-13. Agriculture sector was 4.7% in 2013-14 as against 1.4% in 2012-3. Construction sector grew by 1.6% in 2013-14 as against 1.1% in 2012-13.

The Cement Sector plays a vibrant role in country’s economic growth and drives towards all inclusive growth. Construction and Infrastructure Sector projects need Cement as most indispensable item. The Construction Sector alone contributes to over 7% of the country’s GDP.

For the first time after decades, Central Government has been changed with an overwhelming majority mandate. New Government is considered to be pro-business and already announced bold steps and measures, so Cement Industry also looks forward growth opportunities in the light of revival of country’s economy. Prime Minister have focused infrastructural investments, time bound actions and
improved coordination between Centre and States to ensure the smooth implementation of Government policies including 10 point plan charted out, which motivated the optimism in the economy. Anticipated growth for the current year onwards is surely expected to pick up.

1.2.8 Problems of Cement industry

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

1. **Shortage of capital** – Cement industry is by nature capital-intensive industry. Due to declining profitability track record on accounts, it is unable to elevate the required finance from the capital market.

2. **Power shortage** – Power is also an imperative infrastructure resource needed by every cement industry to continue its production. State Electricity Boards (SEBs) consistently raising cost of power every year while service quality is also diminished, in terms of frequent voltage fluctuations, power cuts and interruptions. Thus, it is affecting adversely on the health of the cement industry and lessens its production capability.

Indian cement industry resolved the issue by installing their proprietary power plants which are not only fulfills their need, today they are supplementing grid power supply which have crossed 700 MW capacity.

3. **Locational problems** – High production capacity cement industries which are producing 71 percent of the total output are located geographically in Western and Southern region of the country, and Northern and Eastern regions account for 29 percent of the total output, while the consumption percentage of total production are different. Southern and western regions consume only 57 percent of their total output and Northern and Eastern regions consumes 43 percent of their total production. Thus, there is an excess production against demand in the Southern and Western regions while there is an excess demand in Northern and Eastern regions. These factors lead to heavy transport cost.
4. **Shortage of coal** – Coal is used as fuel in the production of cement in the cement industry thus its shortage also affects production by putting on hold or underutilization of capacity having a plant. Estimated 13 MT coal are required by the industry today, which in terms of percentage is 6% against its total production in India. Thus, it leads to the dependency of cement manufacturers on coal traders, which further charge exorbitant prices. It is estimated that coal requirement for cement industry will go up to 25MT per annum by 2005.

Cement industry face perennial problem of availability and movement of coal. Bihar, Orissa, West Bengal and Madhya Pradesh are the four major states who deposits 90 percent of the coal available. Coal has be hauled over very long distances as excluding Madhya Pradesh, no other state have any limestone deposits. This leads to the increase in transportation cost also.

5. **Non-availability of railway wagons** – Railway Transportation is most suitable for the bringing of raw material and dispatching of cement to potential markets due to less transportation cost, but Non-availability of railway wagons leads to considerable delay in this process. Adding to this, most railway wagons are open or without roof, due to this dispatched cement, which leads to pilferage and damage by rain. According to statistics of cement industry, dispatching through railway transportation is 55% while 45% of produced cement is dispatched by road.

6. **Defective method of transport** – Process of packaging and bagging of cement in Indian cement industry lacked quality issues. It is economically cheap but may damage during its handling while transporting them and there is not difference packaging or bagging for bulk handling presently.

7. **Negligible share in world trade** – India’s cement industry’s share in the world cement trade is insignificant. Current annual exports are only about 3.5 lakh tones.

8. **Technological obsolescence** – Indian Cement Industry’s are using lower hand production technology and there is no innovation in the production process so there
is a great need to the complete overhauling of the process. Current production process involved wet where there is an immediate need to adopt dry process.

Modernization programs involving rupees 300 crore, has been already implemented, including the latest technologies advancement for the production process using computerized control systems, X-ray analyzers, pollution control devices, captive power plants, upgrading quarry operations etc.

1.2.9 Cement Companies Under Study

1. J.K. Cement Limited – J.K.Cement Limited is serving the nation by three decades in cement manufacturing industry. The Company established in May 1975 at Nimbahera, Rajasthan by initiating operations with commercial production in its first grey cement plant. Successively, it established two more units in Rajasthan at Mangrol and Gotan plant. To expand its business and cover the south-west India market company had setup a green-filed unit in Muddapur, Karnataka, in 2009.

2. Madras Cement Limited – Due to requirements of huge investments and price control factors in 1950s, investment in cement industry was negligible. Industrialists who preferred nation’s development over profit took the charge in their hands and without expecting any profit they invested in the Industry.

In 1961, Madras Cement came in existence and installed its first plant with a total production capacity of 200 tonnes per day which was based on Wet Process. Later, It transformed from Wet Process to Dry Process Furnace for incremental growth in the production capacity & became the first South India based factory.

Further, in 1987, it had established second kiln with total production capacity of 15 lakh tons per annum at Jayanthipuram, Near Vijayawada in Andhra Pradesh.

In 1997, at Alathiyur in TN the third venture of MLC was set up with a capacity of 36.50 lakh ton per annum and expanded by new set up in 2001. By taking Big Leap in the industry in 2009, it has established the country’s most
modern state of the art technology based plant in Aryalur with 2 MTPA huge production capacities.

3. **Shree Cement Limited**– Shree Cement Ltd. is not a new name in the Industry now. On 25th October, 1979 it was incorporated as a public limited company. Members of Bangur family gave commencement certificate to this establishment. In the promotion of this new venture many major player contributed including Shree Digvijay Cement Co.Ltd., Graphine India Ltd. and Fort Gloster Industries Ltd. It has been licensed to manufacture 12 Lakh Tones of Portland Cement per annum. Actual commercial production was started from 1st May 1985. Later, in the fall of 1993 it has increased its production capacity from 6.0 Lakh Mt. per annum to 7.7 Lakh Mt.

Shree Cement Ltd. required a total of 700 acres of leasehold/freehold land which has been acquired from Govt. of Rajasthan including some private parties and project was started at Andheri Deori village in Beawar Tehsil of Ajmer District in Rajasthan state. A new unit named RAJ cement with 1.24 Mt. production capacity per annum was implemented by the company with an estimated cost of project Rs. 325 crore.

4. **The India Cement Company Ltd.** – India Cement Company Ltd. commenced its operations in 1949. Two plants are running by it, Sankardurg, Salem, Tamil Nadu and Nandambakkam, Chennai. Since 1965 its Chennai plant also producing Portland Pozzolana Cement which is a blended cement produced by inter-grinding of OPC clinker along with gypsum and pozzolanic materials in certain proportions. Growth of the company can be measured by analyzing data of its production capacity during five years which is increased five times including setup of a second plant in 1964.

Like every business have its ups and downs it has also seen low production due to major repair of older kiln and techniques in the new factories during the period of 1962-63 and 1964-65. It has also faced challenges of reduced demand by government and private sector due to recession during 1966-67 following another year 1969-70 with below production against its rated capacity. Only 85/5 of the marked production capacity was achieved at Sankardurg plant due to supply delay in machinery for crushing unit and initial teething trouble in the working of new kilns.
Even shortage of coal reserves and higher transportation costs due to distance from coal reserves created adverse circumstances.

It really impressed me during study and presented an example of how business faces challenges and stands up again to survive and grow. In 1961, one of its furnaces burned due to Oil Firing which was also extended to Second Factory. It has successfully overcome with this damage. Due to its efficient units which have the capability to utilize their full production capacity and future expansion plans this Company may supersede in Industry.

5. Ultra-tech Cement Company – Inception of UltraTech can be traced back to the mid-1980s along with the Grasim’s first cement plant at Jawad, Madhyapradesh. Later, Grasim acquired a stake in 2001 in L&T Cement Ltd. in order to increase its reach. In 2003, Grasim presence was PAN-INDIA by increasing majority stake in 2003 due to increased market share. Further, in 2004, due to demerger of L&T’s business completed and it acquired more controlling stake in L&T Cement Ltd. and its name as was changed to UltraTech.

Later on, in May 2010, Grasim’s cement business was demerged and vested in Samruddhi Cement Ltd with Samruddhi Cement Ltd. consequently being amalgamated with UltraTech Cement Ltd. in July 2010. By taking a big leap and showing smart business practices, UltraTech Cement’s wholly owned subsidiary UltraTech Cement Middle East Investments Ltd. acquired management control ETA Start Cement Company, along with its operations in UAE, Bahrain and Bangladesh, it put efforts which now made this company visible on the Global Map in the Industry.

1.3 Review of Literature

Not only in Rajasthan but in different universities of India under commerce subject, the profit of industries, capital structure, working capital, financial management and other subjects are selected, but in cement industry work is done on the subjects like material management, human development, labor management etc. and different people have done work on this. Dr. Mahesh chandra gupta has
presented his research work to Rajasthan University, in which he has taken the economic points of cement industry but till I know, till today financial stability of cement industry has not been studied.

Though previous research study is made on other points of cement industry but during study it came in the mind that only on the basis of these points suggestions for the development of cement industry is not possible till the financial capacity of it is not studied because it is the back bone of the financial business without whom business can not be alive whether finance is used properly? How the finance be used so that this industry can become self dependent by making its economic conditions well.

Dr. choudhary R.L. in his research analyze the reasons of low profitability of fertilizers industry in India. The basic Labor Unionism in Cement Industry specify the reasons of that strong labor unions effects the productivity and profitability off the industry. Dr. Baldua L.N. in his research Labour unionisms in cement Industry specify the reasons that strong labour unions effects the productivity & Profitability of the industry. Dr. Surana C.L. in his research Depreciation Accounting in Cement Industry, he emphasis that due to depreciation procedure and rate of the profits of the cement industry effects.Dr. Shashibala Sharma in her research Material Control in Cement industry of Rajasthan . The aim of study is to suggest a scheme of coast control and coast reduction in the cement industry through the adoption of appropriate scientific material control techniques .Dr. Madhav Bahadur Shrestha in his research Working Capital Management in Cement Industries of Nepal: A Case Study.Dr. Sanajy J.Bhayani in his research Analysis of Financial Statement of cement industry in India. Dr. Bavaria R.K. in his research A Study of Profitability VIS A VIS Liquidity of Cement Industry of Gujarat . Dr. N.K. Dhing in his research ‘Value added Accounting in Cement Industry’ a study of selected units in Rajasthan.’Dr. D. Bhattacherjee in his research Industrial relations in associated cement Companies A Case study of Sindri Unit .Dr. R.Elango in his research Corporate Profitability-A Study with special reference to selected industries/companies in India. Dr. Gayadhar Parhi in his research Corporate Profitability in India: A Study of Selected Chemicals Companies. Dr. H.K. Sahu in his research A Study of Effectiveness of Protective Labour Laws in Cement Industry : with special reference to Dhar District of M.P.. Dr. N. Chandrasekar in his research

Though Present research study is made on other points of cement industry. Raghu chand Atolia is Research in Cost Management in Cement industry (A Case study of selected comment companies in Rajasthan. Vidhi jain is Research in Profitability Analysis of Automobile Industry in India (with special reference of two wheeler Manufacturing Companies).

Shikha Jaiman is Research in Cost Accounting & Control System in Cement Industry in India. Rajesh Kumar Tailor is Research in Performance Appraisal – A Comparative study of Cement Companies in India. By getting the primary study of 45 big cement industries of the country it is found that from them 40% big companies are having financial loss where as the other companies are also not studying the financial life and capacity and can give suggestions for its reform. Under its study how to bring charge in financial plan of the cement industry so that this industry can develop more and being the basic industry of the nation can itself more stable.

As India accepts the WTO norms of free trade, the cement industry's survival, similar to the whole industrial sector, in the changing scenario grossly depend on the competitiveness of the Indian product vis-à-vis major cement producing countries in the world like Korea, Indonesia, Japan and others. Domestically, the growth of cement plants at various stages in the Indian cement industry is always affected by the government policies. The policies of control on cement for a long time followed by consecutive partial and total decontrol have contributed to the gradual opening up of the market for cement producers.

Therefore the study of cement industry is significant, which is one of the major infrastructure industries. The present book assesses analytically the policies adopted towards cement industry and their impact of on its structure and performance. For addressing these issues, the book takes a different approach. It addresses the issue of wholesale privatisation by placing it in the surrounding environment. The study is pursued at two different levels (a) public sector as a whole and (b) individual public sector firm as compared to the private sector firm within the cement industry. For appraising performance, a comparison between
Cement Corporation of India (CCI) and Associated Cement Companies Ltd. (ACC) in the public and private sectors of the industry is envisaged.

There are a variety of views and opinions expressed about the Indian cement industries structure and prospects. Chandak(2008) establishes a strong correlation between GDP and cement industry growth, suggesting also that the Indian cement industry has contributed 8% to economic development in the country. He also underscores the point that companies must continue to emphasize in reduction of cost through enhanced productivity and cites the example of increased use of the sea route for transportation. Moreover he forecasts consolidation across a fragmented industry, as companies seek economies of scale and look to expand their footprint across region. He also questioned the ability of the industry to weather the global economic recession and slowdown in the Indian housing market solely through increased infrastructure spending by the government.

Arora and Sarkar(2008) sought to analyze the good performance of the cement industry over the past few years for collusive behavior. The research discussed characteristics of an ideal cartel detection policy and structural and behavioral cartel detection methods. Parameters that were studied included the firm concentration index, region-wise production & consumption, capacity utilization and cost to sales ratio amongst a few. Their analysis on these metrics appeared to demonstrate that the sudden surge in the price of the cement over the past few years was neither due to a demand-supply mismatch nor a increment in the cost of producing cement. They contended that the cement industry likely engaged in illegitimate collusion and they suggested that the observed decline in cement price after the government announcement to import cement was more evidence of a cartel in the industry.

Katja Schumacher and Jayant Sathaye(1999) contribute to the discussion on productivity growth and the role of technological change within the context of global environment change. Furthermore, different economic and policy settings and efficiencies within the sector have been discussed. They have examined the ongoing changes in the cement industry structure. It compares world best technologies to Indian technologies and identifies potentials and barriers to the achievement of efficiency improvements. A scenario analysis highlights the energy efficiency and productivity improvements that could be achieved by employing more efficient
technologies. Starting with a brief review of the historical as well as theoretical aspects describing state intervention and development; a concise picture of the interaction between government policy and the public sector is set down. It reviews very succinctly, the historical background as well as the price and distribution policy of cement industry in India since its inception. The discussion on the structure of the industry over the years includes a regional overview and a brief outline on the public and private sector in cement industry. The performance of the industry has been analysed in terms of financial analysis, cost behaviour and technical and allocative efficiency with respect to the firms under study. It may be mentioned here that firm-level research in India is at its initial stages, in view of that, the study endeavours to fill in this gap.

Dr. M. Selvam, S. Vanitha & M. Babu is research in A study on financial health of cement industry — “Z” score analysis. The financial health plays a significant role in the successful functioning of a firm. Poor financial health threatens very survival and leads to business failure. Most of the cement producing companies in India has been caught in a vicious down cycle facing a threat to their viability. Therefore, financial health of cement companies has been subject to empirical investigation. In this study an attempt has been made to determine the combined effect of various financial ratios with the help of MDA.

The estimated discriminate function could be of great use for the management in ascertaining the financial health. This study would also be useful to all companies, policy makers and researchers for appraising financial health of corporate sector in general and cement companies in particular.

Dr. Shantanu Kumar Ghosh & Santi Gopal Maji is research in Working Capital Management efficiency(A study on the Indian cement Industry) significant portion of financial research is concerned with the management of working capital. This issue has been extensively investigated at both conceptual and empirical levels. Prasad (2001) conducted a research study on the working capital management in paper industry. His sample consisted of 21 paper mills from large, medium and small scale for a period of 10 years. He reported that the chief executives properly recognised the role of efficient use of working capital in liquidity and profitability, but in practice they could not achieve it. The study also revealed that fifty percent of the executives followed budgetary method in planning working capital and working
capital management was inefficient due to sub-optimum utilization of working capital. Sarvanan (2001) made a study on working capital management in ten selected non-banking financial companies. For this he employed several statistical tools on different ratios to examine the effective management of working capital. He concluded that the sample firms had placed more importance upon the liquidity aspect compared to that of the profitability. Dulta (2001) observed that the various components of working capital of HPMC had not been used efficiently and net working capital position had worsened continuously during the period of study (1991 to 1998). Chundawat & Bhanawat (2000) analysed the working capital management practices in IDBI assisted tube and tyre companies for the period 1994-1998 by using some relevant ratios and concluded that the working capital management of IDBI assisted companies was more effective than the industry as a whole. Srivastav & Yadav (1986) developed a multiple discriminate model in determining the effectiveness of working capital management using four ratios and a sample test of 40 textile companies, of which 20 'not effective' (sick) and 20 'effective' (healthy), they empirically found that their model correctly classified 95 percent of the companies in the sample.

Though accounting ratios played a very important role in most of the above studies, but a choice of ratios or group of ratios is often a difficult task due to the absence of a proper theory of ratio analysis (Bhattacharya, 1997). To overcome this problem Bhattacharya (1997) developed an alternative ratio model for the measurement and monitoring the efficiency of working Capital Management.

An attempt has been made in the present study to investigate the efficiency of the Indian cement companies in the matter of management of working capital during 1992-93 to 2001-2002. Instead of using the common method of analysing different working capital management ratios, three index values representing the average performance of the components of current assets, the degree of utilisation of the total current assets in relation to sales and the efficiency in managing the working capital, have been computed for the selected firms over the ten- year study period. Using industry norm as target efficiency level of the individual firms, an evaluation has been made with regard to the speed of achieving that target level of efficiency by an individual firm during the study period. From the present study it is observed that the Indian Cement industry did not perform remarkably well during
this period. Industry average for efficiency index was greater than one in 6 years out of 10 years study period. Though some of the sample firms had successfully improved efficiency during these years, the existence of a very high degree of inconsistency in this matter clearly points out the need for adopting sound working capital management policies by these firms. In the matter of achieving the target level (industry norm) of efficiency by the firms, Associated Cement and Dalmia were the most successful firm followed by Decan, Kanoria & Madras. In view of the observed values, once again it may not be unwise to conclude that firms under study should take necessary steps in order to improve efficiency in this regard. This is, in particular, important in the context of the present competitive situation of the market.

Present study also suggests that a further study may be helpful for identifying the forces that govern this chronic nature of inefficiency present in the Indian cement companies in the matter of working capital management.

Krishna Kumar research in HR Management Practice in cement Industry in India. The study reveals that more than 80% of the employees are satisfied with Human Resource Policies and practice followed in the company. In allowances also more than 80% of the Employees are satisfied. In Employer and Employee relation sheep around 85% of the employees are satisfied. More than 85% of the employees are satisfied with labour welfare measures. The overall conclusion about the HR Policies and practice followed in India Cement Ltd. Sanskari is excellent. It shows that the reason for the vast development of India cement ltd. Group. If the company continues the same stream of HR policies and practices in future it may achieved many glorious things.

1.4 Objectives of the study

The present study aims to:

1. Assess and comment on the Profitability of cement Industry in India.
2. Suggest ways to increase Profitability without additional financial obligation.
3. Evaluate the value addition in the selected units.
4. Supply valuable information to prospective investors and foreign collaborators.
5. Analyze condense common size income statement.
6. Analyze condense common size balance sheet particularly, utilization of assets for which extent.

1.5 Research Methodology

The relevant data of the selected companies for the study period were collected from authentic resources such as annual reports of the concern companies and publications of Cement manufacturing association. The five leading companies in cement industry in India were selected. The seven year data from 2005-2006 to 2011-2012 have been used with a view to establish the reasons behind. Periodic changes if any. The present study, this way is an attempt to represent the cement industry in India for its profitability analysis over a significant period of time.

Several accounting ratios have been computed to attain the objective of the study. Chi-square test and analysis of variance have been used to test the following hypotheses.

Common size statement, cost and sales trends, multiple discriminator analysis, value added analysis are the major accounting tools used in the study.

1.5.1 Hypotheses

1. There is no significant difference in Inter-firm profits of the selected units.
2. There is no significant difference in the Intra-firm profits of selected companies across the study period.
3. There is no significant difference in gross value added and net value added of the selected companies.

1.6 Limitations of the study:

The number of companies has been kept limited to five only. Further, the study is based on the seven years, i.e., from 2005-06 to 2011-12 for the purpose of studying and testing hypotheses.
1.7 Concluding Remarks

Chapter concludes that Profitability shows the Business and Financial efficiency of a business concern as well it also attracts Investors. It’s vital instrument to measure not only the business performance but also overall efficiency in its concerned. In present study various types of measurement tools of profitability were discussed i.e. Gross profit ratio, operating profit ratio, net profit ratio, earning per share, return on gross capital employed, return on net capital employed, return and return on net worth. Study reveals basic idea of profitability and its significance along with various measurement accounting tools and techniques for computing efficiency of enterprises.

The capacity of Indian cement industry has increased over five times in the last two decades with a three-fold growth in per capita consumption. The available capacity is satisfactory and more than the demand. With, both demand and supply expected to grow equally; cement industry is likely to continue to operate at close to 90% level utilization. The trend of rising prices for cement may not discontinue in the near future. High growth in volumes will certainly drive the industry’s profitability to new highs.

Being this industry a part and parcel of constructional activities, the goals of economic growth of the country cannot be achieved without balanced development of this industry. However, the challenges particularly the factors affecting financials of the cement producers in India need to be researched in totality with a view to identify the measures for strengthening the industry.
References


11. Ibid, p. 29.


21. V. Wason’s, Analysis of financial statements, S.Chand, 2003, P.4.2


24. Ibid P.43


