

**FINANCIAL APPRAISAL OF PUBLIC AND PRIVATE
SECTOR OIL COMPANIES IN INDIA**
(A comparative study of selected lubricant oil companies in India)

A Thesis

Submitted for the Award of Ph.D. degree

In ABST

(Faculty of Commerce)

to the

UNIVERSITY OF KOTA

by

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Under the Supervision of

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2018

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ST. XAVIER'S COLLEGE, JAIPUR

(Affiliated to the University of Rajasthan)
Hathroi Fort Road, Jaipur, Rajasthan - 302001



1st International Conference
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REENVISIONING ECONOMIES
Inclusive Growth & Sustainability
20th – 21st December, 2016

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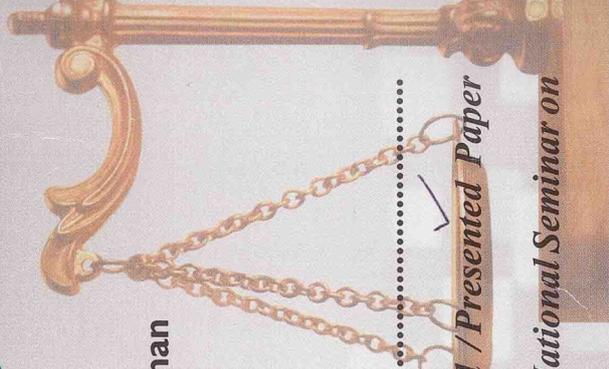
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Abstract

“Lubricant is nothing but a substance used to reduce the frictions between the surfaces which are when came into the mutual contacts. Due to antifoaming, antioxidant and anti-wear properties of lubricants, the industrial, and agriculture, mining, automobile, steel and manufacturing sectors has wide range of the applications. It is useful as cutting fluids like oil emulsions in several industries which are widely used to cool or lubricate the surface. Automobile sales increase will positively influence lubricants market size growth during the forecast period. Appraisal” is just an intelligent application of techniques of appraisal to examine, to measure, to measure, to interpret, and to weigh critically and draw conclusions. Appraisal is done by differently experts who examine the problem with their expertise. When we try to correlate appraisal with finance we mean to say “Financial appraisal”. “An appraisal of the performance of any enterprise depends upon the extent to which corporate objective have been achieved.

The idea to frame a case study of the selected lubricant oil industry grew out of the conviction that very few studies have been made in this field. The study undertakes the task of looking into:

1. Evolution and development of lubricant oil industry in India.
2. The appraisal of performance of selected companies located in India.
3. The aim is to know how the companies have utilised their resources and to appraise the performance of working capital, profitability etc.
4. Their contribution to the upliftment of the society, through value added techniques.

For the present study, four companies of oil industry which are mainly engaged in manufacturing of Lubricant oil are selected on the basis of capital employed and a period of five years (from 2011-12 to 2015-16) is taken for appraisal of performance of these companies. The names of these companies are:

1. INDIAN OIL CORPORATION LTD,
2. HINDUSTAN PETROLEUM CORPORATION LTD,
3. CASTROL INDIA LTD,
4. APAR INDUSTRIES LTD.

Candidate's Declaration

I, hereby, certify that the work, which is being presented in the thesis, entitled **Financial Appraisal of Public And Private Sector Oil Companies in India (A comparative study of selected lubricant oil companies in India)** in partial fulfilment of the requirement for the award of the Degree of Doctor of Philosophy, carried under the supervision of **Dr. M. L. Gupta** and submitted to the Department of ABST in the faculty of Commerce, University of Kota, Kota, represents my ideas in my own words and where others ideas or words have been included. I have adequately cited and referenced the original sources. The work presented in this thesis has not been submitted elsewhere for the award of any other degree or diploma from any Institutions. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. I understand that any violation of the above will cause for disciplinary action by the University and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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Date:

This is to certify that the above statement made by **Gurneet Mokha** Enrolment No. RS/29/16 is correct to the best of my knowledge.

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Supervisor

Acknowledgement

I am thankful to the Almighty God for giving me strength and zeal to complete this endeavour.

I take this opportunity to express my deep sense of gratitude to my supervisor, Dr. M.L Gupta for enriching valuable guidance and support throughout the course of present study. I sincerely thank him for continuously nurturing my endeavour and inspiring me to carry out this research work with full confidence and demand.

I am also thankful to Dr. Anita Sukhwal, Head of Department (ABST), University of Kota, Kota for creating good research environment during my study.

I also feel immense pleasure to put on record my sincere thanks to Prof. M.L. Sharma, former Head of Department (ABST), University of Rajasthan, Jaipur for his help and support during the course of my research work.

I acknowledge Fr. Augustine Perumalil, Principal, St. Xavier's College, Nevta for his constant encouragement and moral support during the course of my research work.

I express my deep sense of gratitude to all the persons from whom I received encouragement, directly or indirectly in my research pursuits for a period of years which have culminated into the thesis.

I extend my sincere thanks to my friend Vandana for her kind help and support.

I would like to express my regards and respect at this moment for my grandfather Late S. Gurbax Singh Mokha who had been a great source of inspiration for me.

I am highly indebted to my parents my father S. Harminder Singh Mokha and mother Sdn. Paramjeet Kaur Mokha, my father-in-law S. Gurdeep Singh Suri and mother-in-law Sdn Harmeet kaur Suri.

I shall not forget throughout my life the whole hearted support extended by my sisters Manpreet Kaur Sodhi and Harmeet Kaur Michra throughout the course of my research work.

I have paucity of words to express my feelings for my husband S. Harshveer Singh Suri for his constant help and concern without which this work would not have been possible.

Last but not the least I owe special thanks to my son Anhadveer Singh Suri as he had to sacrifice valuable moments during the course of this work. His innocent looks and smiling face inspired me to complete this work.

Gurneet Mokha

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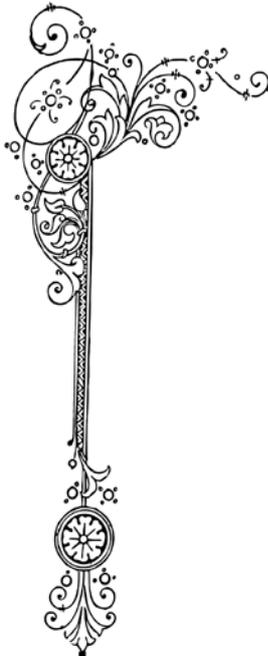
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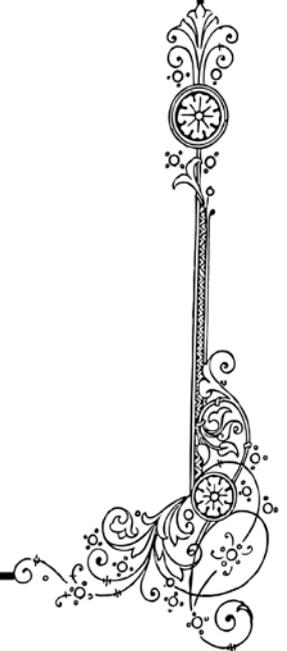
Abbreviations

IOCL	:	Indian Oil Corporation Limited
HPCL	:	Hindustan Petroleum Corporation Limited
CIL	:	Castrol India Limited
AI	:	Apar Industries



CHAPTER 1:

Financial Appraisal



CHAPTER-1

FINANCIAL APPRAISAL

1.1 CONCEPT OF APPRAISAL

“Appraisal” is just an intelligent application of techniques of appraisal to examine, to measure, to measure, to interpret, and to weigh critically and draw conclusions. Appraisal is done by differently experts who examine the problem with their expertise. When we try to correlate appraisal with finance we mean to say “Financial appraisal”. “An appraisal of the performance of any enterprise depends upon the extent to which corporate objective have been achieved”. (Kumar, 2005)

1.2 MEASUREMENT OF FINANCE

Measurement of finance through the financial statement analysis provides a good knowledge about the behaviour of financial variables for measuring the performance of different units in the industry and to indicate the trend of improvement or deterioration in the organisations.

1.3 AREAS OF PERFORMANCE

1.3.1 Profitability Performance

Profitability is the ability of an enterprise to earn profits. Management is vitally interested in profit as it is often used as performance measure. Measurement of profitability is the overall measure of performance. Profits are also important to financial institutions, bankers and creditors. Moreover, even a layman also assesses the performance of a business enterprise by its ability to earn profits. Profitability performance can be made by computing and interpreting various profitability ratios.

1.3.2 Working Capital performance

Generally working capital is said to be the excess of current assets over current liabilities. It is used for regular business operations consisting of purchases of raw materials, payment of wages, direct and indirect expenses, carrying on production, investment in stock and stores, credit granted to customers and cash in hand. It is a life blood of a business enterprise. As soon as the heart gets blood, it circulates the same in the body. In the same manner working capital funds are

obtained and circulated in business operations. As and when this circulation stops, the business becomes lifeless. So we can say that the working capital has an important place in the area of performance, hence working capital performance indicates the adequacy of working capital in the enterprise and the efficiency as regards utilisation of working capital: Analysing of working capital statements and various ratios of its kind may depict required information for the purpose.

1.3.3 Social performance

The value of all the resources of a business enterprise to the society is called social performance. They may be man, material, machine and money. All these resources which are to be used for the good of society and business consist of social performance.

The social performance of any business enterprise can be studied by value added which indicates the manufacture during a specified period. Social performance can be judged by the statement of application of value added to the different parties like employees, owners, capital financing institutions and the government. All these agencies are members of society.

1.4 CONCEPT OF FINANCIAL APPRAISAL

The financial appraisal is a vital unit to measure the performance of firms. Therefore, financial statements are prepared to serve the objective. “The primary focus of financial reporting is information about an enterprise’s performance provided by measures of earnings and its components.” (Ernst & LLP, 2008)

Rrich A. Helfert rightly remarks, “The measurement of business performance is more complex and difficult, since it must deal with the effectiveness with which capital is employed, the efficiency and profitability of operations, and the value and safety of various claims against the business” (A & Hertfelt, 1997). The main object of preparing financial statement is to show the result achieved by an enterprise through its operations, the revenues and the actual financial position for the particular period on a particular date.

In order to analyse Financial Statement properly, users must have a basic understanding of the concept and principles underlying their preparation. Without such an understanding users will not recognize the limits of financial statements.

In any business enterprise accounting provides financial data through income statements, balance sheet and sources and uses of funds statements. ” The financial Manager must know how to interpret and use these statements in the allocation of the firms financial resources to generate the best return possible, in the long run, Finance are the link that integrates the economic theory with the numbers of accounting. ” (Block & Hirt, 1999)

1.5 NEED & IMPORTANCE OF FINANCIAL APPRAISAL

The financial appraisal encompasses everything involved in managing the enterprise’s financial resources. It involves the activities such as:

- a) **Financial planning:** Financial planning is assessing your business’ financial situation, determining its objectives and formulating financial strategies of how to achieve them.
- b) **Budgeting and forecasting:** Budgeting and forecasting is essential for controlling the financial affairs of a concern.
- c) **Financial control:** Financial control devices generally used by management are (i) Ratio analysis (ii) Cost control (iii) Internal audit (iv) Standard costing etc.
- d) **Estimating financial requirements:** Scope of finance function includes estimating the financial requirements of the enterprise. Finance is required for both long-term as well as short-term purposes. Necessity of finance arises not only at the commencement of business but also during the period business activities are continued. Shortage of funds may ruin the business. Thus, the proper estimation of requirement of funds is necessary.
- e) **Cash and treasury management:** Cash and treasury management is also covered under the scope of financial appraisal. Cash and treasury management includes assessing the needs of money and ensuring that the enterprise has the money when it is needed.

- f) **Deciding optimal capital structure:** Capital structure refers to the mix or proportion of different sources of finance in the total capitalisation of the company. The capital structure is said to be an optimal capital structure when a company selects such a mix of debt and equity, which minimises the overall cost of capital and maximises the wealth of the shareholders.
- g) **Choosing an appropriate source of finance:** Funds can be procured from different sources. Finance function aims at selecting the most appropriate source of finance.

1.6 TECHNIQUES OF FINANCIAL APPRAISAL

1.6.1 Financial

The various financial techniques commonly used for the appraisal of performance are given below.

1. **Ratio Analysis:** A ratio is simply one number expressed as (i) percentage (ii) fraction and (iii) a stated comparison between numbers. According to Hingorani, et al, "Accounting ratios are relationships, expressed in Mathematical terms, between figures with a cause and effect relationship or which are connected with each other in some manner or the other." (Behl & Gupta, 2007). Ratio may be based on figures in the balance sheet, in the profit and loss account or in both. So the "ratio analysis is the study of specific relationship and forms the heart of the statement analysis. Analysts use ratio to link different parts of the financial statement in an attempt to find clues about the status of particular aspects of the business." (Behl & Gupta, 2007). The general procedure in ratio analysis evolves the selection of the items from the financial statements and division of one item into the other to form a ratio. It points out whether the financial condition of a business enterprise is good or bad. It is universally used for appraising the performance of a business firm. The interpretation of ratios involves making comparisons overtime. Under this, the same ratio, or for that matter a group of ratios, is studied over a period of years with the result that significant trends indicating rise, decline or stability are highlighted. Sometimes, the average value of a ratio for a number of years in the past can serve a standard against which to judge current performance. The ratios of any given firm

may be compared with the ratios of other firms in the same industry. This is also known as inter-firm comparison. ’

Steps involved in Ratio analysis:

- a) Find out the purpose for which analysis is required.
- b) Choose relevant data from the financial statements.
- c) Compute appropriate ratios with the help of above data.
- d) Compare these ratios with the ratios of previous years or the ratios of competitor firms or industry average.
- e) Interpret the ratios and draw conclusions.

Objectives of Ratio analysis:

- a) To measure the profitability of the business
- b) To judge the operational efficiency of the firm.
- c) To judge the operational efficiency of the firm.
- d) To assess the short term as well as long term financial position of the business.
- e) To facilitate inter-firm as well as long term financial position of the business.
- f) To facilitate inter-firm as well as intra-firm comparison.
- g) To help the management in budgeting, planning and control.
- h) To locate the weak points of the business.

Limitations of Ratio analysis:

- a) Misleading results
- b) Limited comparability
- c) Qualitative factors neglected
- d) Lack of universally accepted standards
- e) No indication about the future
- f) Problems in interpretations.
- g) Price level changes
- h) Personal bias
- i) Manipulation/window dressing
- j) Sufferings from the limitations of financial statements

2. Trend analysis: A time series analysis made for a number of successive years to understand the trend of financial data is known as trend analysis. Trend analysis technique is useful to analyse the financial statement of an enterprise and to put the absolute figures of the financial statement in more understandable form over a period of years. This indicates the trend of such variables as sales, cost of production (or operation) profits, assets and liabilities.

Purpose and Objectives of Trend Analysis:

- a) To judge the operational efficiency of the business.
- b) To measure the short-term and long term financial position of the business.
- c) To ascertain whether adequate profits are being earned on the capital invested in the business.
- d) To determine the operational efficiency of the management.
- e) To predict the growth potential of the business.
- f) To find out the weaknesses/ shortcomings of the business and timely reporting of the same to the management so that it can take remedial measures to remove those shortcomings.
- g) To make inter-firm comparisons.

Importance of trend analysis

The importance of trend analysis to various parties is given below:

- **Shareholders:** shareholders are concerned about the safety of their investment in company's shares. They want to know the rate of return on their investment. They are also interested in knowing the financial position of the company and the future prospects of the company. Financial analysis provides all the necessary information in this regard and recommends to shareholders whether they should hold or sell their shares.
- **Management:** analysis of financial statements is of utmost importance for management. It measures the overall performance of the business. It helps the management in checking the results of its own policies and decisions. It pinpoints the areas where the managers have shown better efficiency and the areas of inefficiency.
- **Creditors:** Creditors are those who sell goods or provide services on credit and to whom the business owes money. They want to know whether or not the business would be in a position to pay their debts on time. Thus they are more interested in working capital/short-term financial position of the business.
- **Investors:** investors are concerned about the safety of their investment in company. They want to know whether the company will be able to give adequate return on their investments.

The different approaches to trend analysis are as follows:

- (i) Common size vertical analysis
- (ii) Common size horizontal analysis

Trend analyses help the analyst and management to evaluate the performance, efficiency and financial condition of an enterprise. It is useful to compare the position of a company with the average performance of the selected lubricant oil companies and with the others. Trend percentages constitute an important tool of interpretative analysis of the performance of a company. These percentages are, in fact, index numbers showing relative change in financial data resulting from the passage of time.

Common size statements:

Common size statements are those statements in which figures of financial statements are converted into percentages to some common base. Common size statements may be prepared for the income statement as well as for the balance sheet. In the common size income statement, sales are taken as the base i. e. 100 and all other items are expressed as percentages of this base. Likewise, in the common size balance sheet, the total of balance sheet is taken as the base i. e. 100 and all items of assets and liabilities are expressed as percentages of this base.

(i) Common-size Vertical Analysis

All the statements may be subject to common size vertical analysis. A figure from the same year's statement is compared with the basic figure selected from the statement. The statement should be converted into percentage to some common base. The common size vertical income statement and balance sheets of selected Lubricant oil companies under the study are given in the study.

(ii) Horizontal Common-size Analysis:

It is a calculation of percentage relation that each statement item bears to the same item in the base year. Horizontal analysis can help the analyst to determine how an enterprise has arrived at its current position. The horizontal common-size balance sheet and profit and loss accounts of the selected lubricant oil companies covered by this study are given at the end.

The technique of common size statement is useful when we wish to compare the performance of one company with that of another for presentation of the data in percentage form, since it eliminates problems relating to differences in organisation size.

3. Comparative statement analysis:

Comparative financial statements are the statements in which the financial statement figures for two or more periods are put side-by-side so as to facilitate comparison and to ascertain the trend of the profitability and financial soundness of the business. These are the statements prepared in a form reflecting financial data for

two or more periods are known as comparative statements. The data must first be properly set before comparison. In the preparation of comparative financial statement, uniformity is essential, otherwise comparison will be vitiated. Comparative financial statements are very useful to the analyst because they contain not only the data appearing in a single statement but also information necessary for the study of financial and operating trends over a period of years. They indicate the direction of the movement in respect of the financial position and operating results. Comparison of absolute figures has no significance if the scale of operations of one company is much different from that of others.

(i) Comparative Balance-sheet: increase and decrease in various assets and liabilities as well as in proprietor's Equity or Capital, brought about by the conduct of a business, can be observed by a comparison of the balance sheets at the beginning and end of the period. Such observation often yields considerable information which is of value informing an opinion regarding the progress of the enterprise and, in order to facilitate comparison, a simple device known as the "Comparative Balance Sheet" may be used.

Though the balance sheet is a useful statement, the comparative balance sheet is even more useful, for it contains not only the date of single balance sheet but also those which may be used in studying the trend in an enterprise. Information regarding trends indicating the direction in which a business is headed is usually more significant to the analyst than that concerning the book values of assets and liabilities.

(ii) Comparative Income statement: an income statement shows the net profit or net loss resulting from the operations of a business for designated period of time. A comparative income statement shows the operating results for a number of accounting periods so that changes in absolute data from one period to another may be started in terms of money and percentages.

The comparative income statement contains the same columns as the comparative balance sheet and provides the same type of information.

As the income statement presents the review of the operating activities of the business and the comparative balance sheet shows the effect of operation of its assets and liabilities, the latter contains a connecting link between the balance sheet and the income statement. Income statement and balance sheet are complementary documents and they highlight certain important facts. These statements indicate:

- a) Increase or decrease in sales.
- b) Increase or decrease in cost of goods sold.
- c) Increase or decrease in gross profit.
- d) Increase or decrease in operating expenses like office, administration, selling and distribution expenses.
- e) Increase or decrease in operating profit
- f) Increase or decrease in net profit.

1.6.2 Costing techniques

Several costing techniques are used for the appraisal of efficiency and effectiveness e. g. Standard Costing and budgetary Control, Uniform costing, Marginal Costing etc. These techniques are explained as under.

- a) **Standard Costing:** Standard costing is a technique which determines the costs in advance of production. It is used for the purpose of costing. When standard costs are used for the purpose of cost control, it is known as standard costing. Standard costing means and include the following:
 - i. Ascertainment of standard cost
 - ii. Measurement of actual cost
 - iii. Comparison of actual cost with standard cost to find out variance.
 - iv. Analysis of variance.

In actual practice standard costing is complimentary to historical costing. It is used to find out a standard of some type of budgeting such as level of activity, working conditions etc. It is technical estimate of material, labour and overhead. It is also a technical estimate of what the cost should be. It is used for the purpose of cost control costing system. These estimated costs are used by firms which adopt actual costing system. Standards are fixed for each element of cost.

Advantages of standard costing

- Standard costing system indicates variances which are analysed to find out the causes and persons responsible for them.
- Standard costing helps management in fixing prices, determining policies, ensuring cost control and effective cost reduction.
- Standard costing compels executives, employees etc. to be goal oriented.
- Under the standard costing system, production facilities and other operating conditions are standardised.
- After analysing the variances, variance reports are prepared in such a way that the top management need not waste their time on insignificant variances.
- Inventories of raw material, work- in- progress and finished goods can be valued at standard cost.
- Application of standard costing requires standardization of productive, accounting and recording system that minimizes waste and clerical efforts. Hence it is a cheap and economic system.

SUITABILITY

Standard costing is used in those industries where production process and nature of the products remain the same and standard products are continuously manufactured. Such industries are chemical, paper, agriculture and food, engineering, jute, sugar, iron etc. on the contrary, industries where form, quality, size and type of the product to be produced are changed frequently such as job costs or contracting, this method cannot be used.

Limitations of Standard Costing: Standard costing is not always advantages. It has certain limitations as listed below:

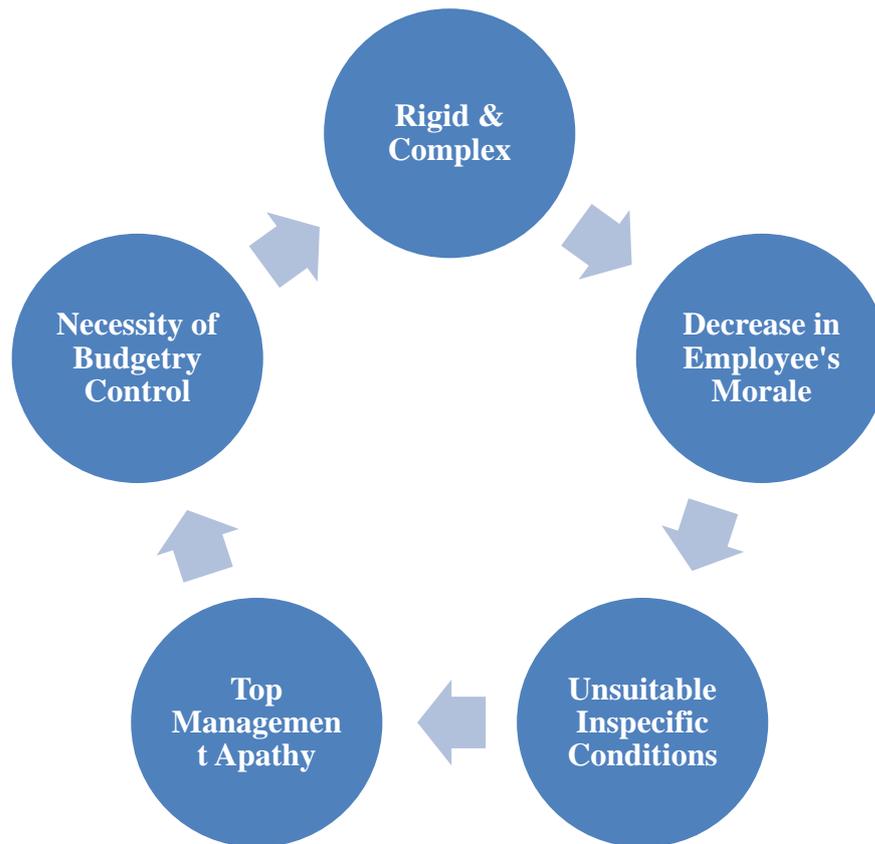


Figure 1.1: Limitations of Standard Costing

Establishing a standard costing system

1. Establishment of cost centres
 2. Classification and codification of accounts
 3. Determination of type of standard.
 - A) Basic standard
 - B) Ideal standard
 - C) Expected standard
 - D) Normal standard
 - E) Setting the standards.
- b) Historical costing: historical costing deals with the recording of transactions that have already taken place. This costing suffers from the limitation of lack of effective cost control.

Historical system does not ensure cost control as it does not provide any yardstick for the measurement of actual costs. It is just a post-mortem of the costs that have already been incurred. These limitations of historical costing or actual costing system led to the development of standard costing system.

c) **Budgetary Control:** budgetary control is broad concept. It deals with operations of different departments of business. Under budgetary control budgets are not dependent on standards for their preparation. Budgets are prepared on past figures adjusted to future. In budgetary control, budgets are compiled for all incomes and expenditures. It helps in setting up the targets beyond which cost should not exceed standards. Variances are calculated in total and are not passed through the accounts. The calculated variances help in controlling various cost items.

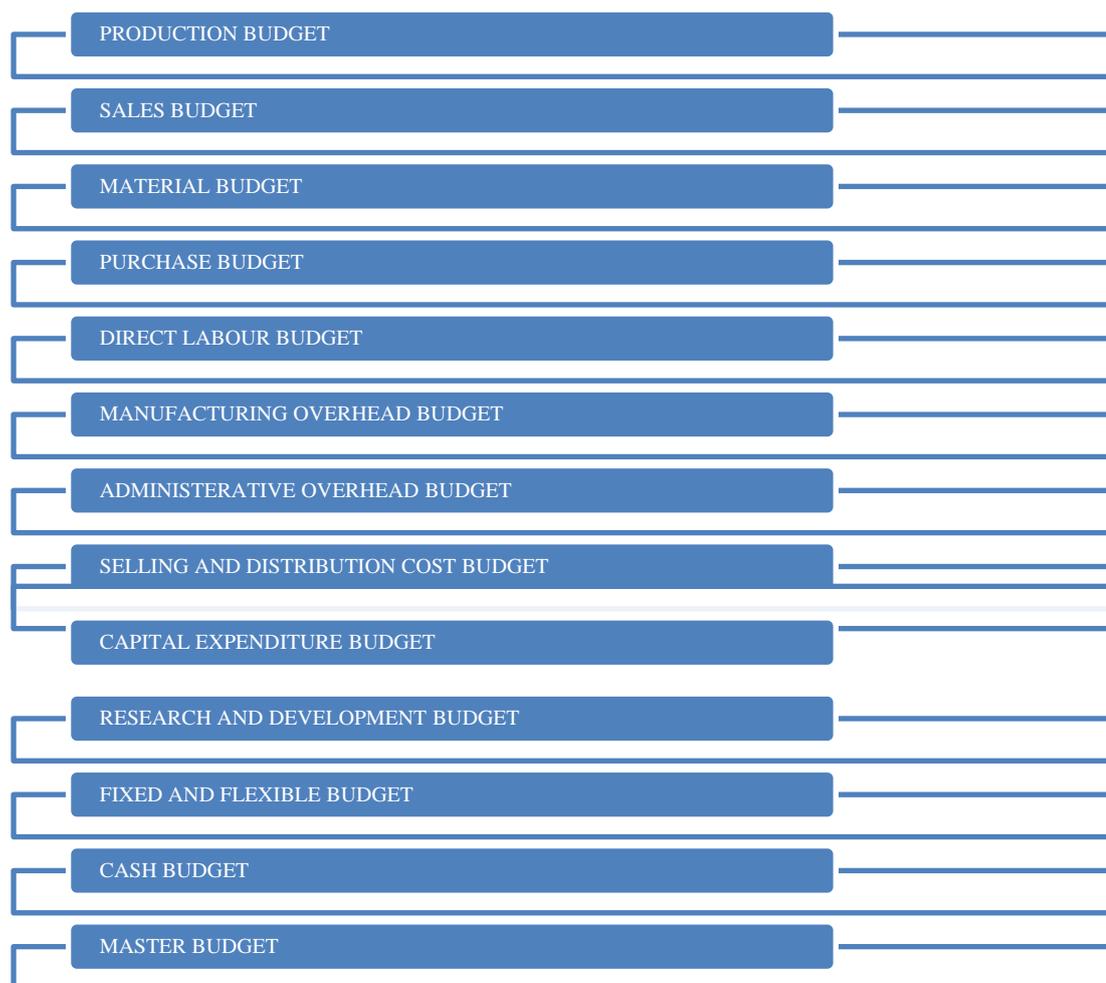


Figure 1.2: Types of budgets prepared under budgetary control

d) Absorption Costing: it is technique of ascertainment of costs. It is a practice of charging all costs whether fixed or variable to the cost of the product. It is full costing technique. Under this technique cost per unit goes on changing with a change in output. This is because of the presence of fixed cost in the cost of the product.

Table 1.1: Income statement (absorption costing)

Sales	Internal Value	XXX
LESS:- COSTS OF MANUFACTURED GOODS		
○ DIRECT MATERIAL	XXX	
○ DIRECT LABOUR	XXX	
○ DIRECT EXPENSE	XXX	
○ FACTORY O/H:- <i>VARIABLE</i>	XXX	
<i>FIXED (ABSORBED)</i>	XXX	
	XXX	
ADD: - OPENING STOCK OF F. G.	XXX	
LESS: - CLOSING STOCK OF F. G.	XXX	
	XXX	
ADD:- UNDER ABSORPTION OF O/H	XXX	
LESS: - OVER ABSORPTION OF O/H	XXX	XXX
GROSS PROFIT		XXX
LESS:-		
• ADMINISTRATIVE/SELLING /DISTRIBUTION		XXX
• O/H- FIXED AND VARIABLE		
NET PROFIT		XXX

e) Marginal Costing

It is a technique of cost ascertainment, which considers only variable cost for the purpose of cost of the product. The cost per unit under marginal costing is same at different levels of output. The main features of marginal costing are: -

- All costs are segregated into fixed and variable.
- The variable costs alone are charged to production.
- The valuation of the stock based on variable cost of manufactured costs.
- Difference between sales and variable costs is called contribution.

- Performance is evaluated based on contribution.
- Net profit is calculated by deduction fixed cost from contribution.

Applications of Marginal Costing

- **COST CONTROL:** - there are two types of cost. One is variable cost, which is controllable, and another one is fixed cost, which is uncontrollable.
- **PROFIT PLANNING:** - marginal costing helps in profit planning by helping the company to ascertain the number of units to be sold or price at which the units should be sold or variable costs at which product should be used to earn a desired profit. The products, which have higher PV ratio or contribution, are preferred from break-even point.
- **FIXATION OF SELLING PRICE:** - although in a competitive market the price is determined by the market force but the firm also has to take pricing decisions.

The determination of selling price under different conditions is:

- I. Under normal conditions: - under normal conditions price is fixed in such a way to cover the variable cost, the fixed costs and to generate the sufficient results.
- II. In times of competition: - in the times of competition, a firm may sell even below the cost to wash out the competitors from the market.
- III. In times of the depression:- the product may be sold even below the total cost but not below the variable cost.
- IV. Accepting additional offer: - while accepting additional offer, price may be fixed below the normal price if such a price gives a positive contribution.
- V. Selection of suitable product mix: - the optimum product mix is the one, which makes optimum utilization of scarce resources and ensure maximum profit.
- VI. Marginal costing is used in maintaining a desired level of profit.
- VII. Marginal costing uses alternative method of production.
- VIII. Marginal costing can be applied in diversification of the product.
- IX. Closing down or suspending activity.

The following factors are taken into account while deciding whether to close down or not a business for a temporary period.

Cost factor: - the business is continued if it is able to cover up the variable cost even though the fixed cost is not being recovered totally. However if the selling price is drops to such an extent that even the variable cost cannot be recovered, then its better to close down the activities.

Non- cost factor: -

- a) Once the business is closed, competitors may establish their products.
- b) Fear of retrenchment of the workers.
- c) Plant may become obsolete.
- d) Reputation of the firm may suffer.
- e) Relationship with the suppliers may be affected.
- f) Fear of non-collection of dues from custom.

The conditions under which the selling price can be kept even below the variable cost.

- I. When the new product is introduced in the market.
- II. When the concern has the large quantity of the material, at this time also the price is kept low.
- III. At the time of the closure of the business the price is kept below.
- IV. profitable products.
- V. The price is also kept low when the workers cannot be retrenched.
- VI. When the competitors are to be weeded out, the price of the product is kept below.
- VII. The prices are kept low when the product is of the perishable nature.

1.6.3 Statistical Techniques

Many other statistical techniques like average, range, index numbers, etc.

Meaning and definition of statistical averages

In statistics, individual values have no importance but the other characteristics of the group data are important. Generally, we study statistically the

common characteristics of the group and not a particular characteristic of an individual, for example, for us average age, average rate, average income, average marks are important and not any individuals.

The chief characteristics of the mass of data can be represented by a single figure, which is the gist of all figures. This single figure or value is the average. This single value is the point around which individual values cluster. This single value has a tendency to be somewhere at the centre and within the range of all values in the group. It is also known as the measure of central tendency. Has defined an average as follows-

Prof. Coxton and Cowden has defined an average as follows-

‘An average is a single value within the range of the data that is used to represent all the values in the series. Since an average is somewhere within the range of the data, it is sometimes called as measure of central tendency’ (Jain & Pareek, 2012).

Prof Simpson and Kafka has defined

It as ‘a measure of central tendency, it is a typical value around which other figures congregate.’ (Jain & Pareek, 2012)

Prof. Yale and Kendall has said- (Jain & Pareek, 2012)

‘Measures of the location or position of a frequency distribution are called averages.’

Objectives and function of statistical averages

The following are the functions of the Averages:-

- **Presentation of data in a brief way:** - *Prof Moroney* says- “The purpose of an average is to represent a group of individual values in a simple and concise manner, so that the mind can get a quick understanding of the general size of the individuals in the group” (Jain & Pareek, 2012).

- **Representation of the entire group of individual data:** - An average reduces a complex mass of data into a single typical figure. This single representative figure conveys an adequate idea about the whole group.
- **Facilitates comparison:** - An average is a representative figure for the whole group and a comparison of one set of data can be made with the help of their averages. The average monthly sale of a shop can be compared month-wise as well as with the average sale of a month in the previous years. Average can point out the mathematical relationship between different groups of data.

Essential features of an ideal average

- It should be defined clearly, so that different persons may not interpret it differently.
- It should be easy to interpret and easy to calculate and determine.
- The average should be definite figure, for e. g. , it may be 15, 20, 25 or any other figure but not between 20 and 25.
- It should be a representative figure of the whole group from which it has been computed.
- It should be in the same unit in which the data have been given and not in percentage or any other unit.
- It should be stable and based on all the observations of the data. A minor change in the data may not change it entirely.
- It should be subjected to further mathematical calculations.
- It should be least affected by fluctuations of the sampling.
- It should not be unduly affected by the extreme values.

Table 1.2: Kinds of statistical averages

Types		Symbol
1.	Potential Averages (A) Mode (B) Median	Z M
2.	Mathematical Average (A) Arithmetic Average or Mean (B) Geometric Mean (C) Harmonic Mean (D) Quadratic Mean	– X G. M. H. M. Q. M.
3.	Business Averages (A) Moving Average (B) Progressive Average (C) Composite Average	

- Positional averages are based on the position of a value in the whole series and their calculation is determines the position.
- Mathematical averages are fully based on mathematical calculations.
- Business averages help in the conduct of the business and industry more skilfully. They help in the forecasting and trend calculations.

Mode

Mode is a value, which has the largest frequency. **Prof Kenny and Keeping** define it as “the value of the variables, which occurs most frequently in a distribution is called as MODE” (Jain & Pareek, 2012)

Croxtton and Cowden define it as – the mode of distribution is the value at the point around which the items tend to be most heavily concentrated. It may be regarded as the most typical of a series of values. (Jain & Pareek, 2012)

According to **A. M. Tuttle** “Mode is the value which has the greater frequency density in its immediate neighborhood”. (Jain & Pareek, 2012)

In simple words mode represents that value which is most frequent or typical or predominant. For examples, in a factory a very big number of labourers get

Rupees. 60 per day and those getting less or more is less than this. The modal wages of that factory is Rupees 60.

Median

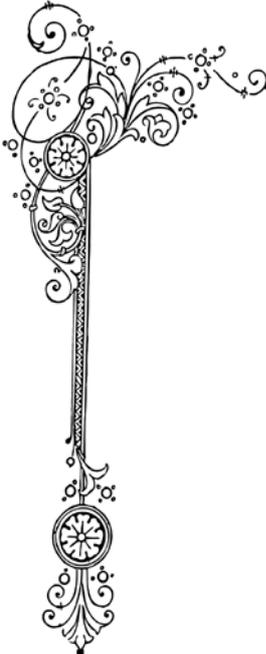
Median is defined as the middle most of the central value of the variable in asset of observations, when the observations are arranged either in the ascending order or in descending order. It divides the arranged series in two equal parts. Like mod, median is a positional average. Mode is the maximum frequencies while median is the value just in the centre of an arranged series.

Prof L. R. CONNOR has defined it as:- the median is that value of the variable which divides the group into two equal part, one part comprising al values greater and the other comprising all values less than median". (Jain & Pareek, 2012)

Diagrammatic and graphic presentations, bar diagrams are also used in the appraisal of performance, because they provide a simplified way of understanding.

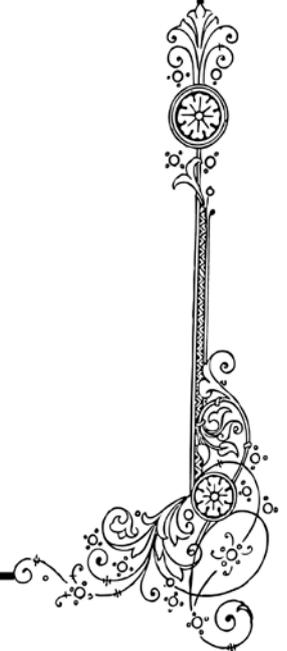
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CHAPTER 2:

Research Methodology



CHAPTER-2

RESEARCH METHODOLOGY

2.1 INTRODUCTION

The idea to frame a case study of the selected lubricant oil industry grew out of the conviction that very few studies have been made in this field. The proposed industry undertakes the task of looking into:

1. Evolution and development of lubricant oil industry in India.
2. The financial appraisal of selected companies located in India.
3. Their contribution to the upliftment of the society, through value added techniques.

2.2 REVIEW OF LITERATURE

BOOKS

1. In the year 1956, Arnord Miller in the book "The chemistry of Lubricating oil additives" has examined the chemistry of lubricating oil additives including antioxidants. The clear explanation of lubricant and extreme pressure additives, pour-point depressants, viscosity index improvers and rust inhibitors have been done.
2. In the year 1994, Avilino Sequeira, Jr in the book "Lubricant base oil and wax processing" has explained the manufacturing processes of oil, distillation, meaning of dewaxing, finishing and formulation of products, meaning of distillation. The supply and demand of lubricant base oils.
3. In the year 1996, Roger F. Haycock & John E Hiller in the book "Society of Automotive Engineers" has explained the meaning of lubricants, functions of lubricants, solid and grease lubricants, constituents of modern lubricants, friction modifiers, oil testing, diesel engine oils.
4. In the year 1995, Kenneth E. Bannister in the book "Lubrication for industry" has explained the basics of lubricants and their functions, various characteristics of oil, also the discussion on viscosity and the viscosity Index improvers have been done. Meaning of various improvers, various additives used in lubricants to imbalance the performance has been explained. The

book also includes the type of oils, meaning and ingredients of grease and its formulation.

5. In the year 2000, Heinz P. Bloch & Abdus Shamin in the book “ Oil mist lubrication: Practical Application” has mainly focussed on how oil mist system which consists of a mist lubricator unit, produces and controls of mist, viscosity and ability to resist wax formation.
6. In the year 2007, Prof. Dr. Theo Mang, Dr. Wilfred Dreses in the book “ Lubricants and lubrication”. Has explained about the lubricant industry, meaning of friction and its types, types of wear, its process. About viscosity, industrial gear oils, base oils, viscosity index, complex esters and esters of carboic acids.
7. In the year 2008, Daniel Yergin in the book “The epic quest for oil, money and power” has explained about the meaning, characteristics, and viscosity and metal deactivators.
8. In year 2009, Leslie R. Rudnik in the book” Lubricant Additives :Chemistry and Applications” has explained about the sulphur compounds, phosphorour compounds, copper and boron Antioxidants, Autoxidation of Lubricating oil, Effect of base stock and commercial metal deactivators.
9. In year 2010, R. M Mortier, M. F. Fox, S. T. Orszulie in the book “Chemistry and technology of lubricants” has explained about the source, composition and suitabilityof crude oils for base oil production, properties and application of base oils, the API categorisation of mineral base oils.
10. In Year 2011, Debarshi Bhattacharya in the book “Management Accounting” has explained about the meaning, objectives, scope of management accounting, characteristics of financial statements and relationship between income statement and Balance sheet,
11. In year 2015, Rebab M. Nasser in the book “The behaviour of some Acrylate Coplymers as lubricating oil Additives” has explained the determination of different types of lubricating oil additives. The experimental part includes the synthesis and elucidation of novel terpolymers based on ackylacrylate and evaluation of them as viscosity index i.

JOURNALS

1. American society of mechanical engineers in “Journal of Lubrication Technology, volume 95” has explained the hydrodynamic lubrication, viscosity and journal bearings.
2. J. Frene, D. Nicholas, B. Degneurce, D. Berthe, M. Godet in “Hydro dynamic Lubrication Bearings & Thrust Bearings” has explained the history of oils, viscosity index improvers, viscosity of Lubricants and viscosity of gases.

2.3 CONCLUSIONS FOR REVIEW OF LITERATURE

From the foregoing study of thoughts of eminent scholars, society and statistical figures we learnt that-

- There has been tremendous growth in research in the field of financial appraisal and lubricant oil industry. The graph of same is on rise in both quantitatively as well as qualitatively.
- For this keen interest taken by eminent scholars and academicians analysts deserve credit for the same.
- Senior Executives are also gradually increasing their awareness and acceptance of financial appraisal. The areas of financial appraisal are profitability, working capital, ratios etc.
- Public sector oil companies have evinced more interest in social activities in comparison to the private sector oil companies.
- The issue of proportion of profit and contribution towards social responsibility is not clear. Social responsibility is kept on back seat depending upon magnitude of profit.
- There is enough scope left for research on the subject of financial appraisal and lubricant oil companies.

2.4 MAIN OBJECTIVES OF THE RESEARCH WORK

1. To show the Performance of the Lubricants oil firms by calculating its performance appraisal.
2. To show how the little change in the policy of the government affects the change in pricing of the products of these oil companies.

3. To show how the working of these companies have effect on their manpower.
4. To show the effect of these companies on the economy and the society.

2.5 PURPOSE OF THE STUDY

The present study deals with the financial appraisal of the Lubricant oil industry in India. The relevance of the present study is quite obvious today. After Independence, our progress and prosperity owes a great deal to the multifaceted role performed by some of the lubricant oil companies. the present study undertakes the task of looking into:

- The history and development of the selected Lubricant oil companies in India.
- The financial appraisal of the selected lubricant oil companies in India. The basic aim is to know how these selected lubricant oil companies are utilizing their resources. The aim is also to appraise the performance of these selected lubricant oil companies in terms of working capital, fixed assets, profitability etc.
- The contribution of the selected lubricant oil companies in the betterment and upliftment of the society.

2.6 SCOPE OF THE STUDY

For the present study, four companies of oil industry which are mainly engaged in manufacturing of Lubricant oil will be selected on the basis of capital employed and a period of five years (from 2011-12 to 2015-2016) will be taken for appraisal of these companies. The names of these companies are:

1. INDIAN OIL CORPORATION LTD,
2. HINDUSTAN PETROLEUM CORPORATION LTD,
3. CASTROL INDIA LTD,
4. APAR INDUSTRIES LTD.

The financial appraisal of the selected Lubricant oil companies covered in this study will be fully examined. The conclusions drawn and suggestions attempted

will provide practical guidance to the managements of the companies to initial action for improvement of performance of their companies.

The study can be helpful to the management of these selected lubricant oil companies, financial managers, investors, workers and consumers in taking decisions related to their own spheres of interest.

2.7 HYPOTHESIS

The hypothesis underlying the empirical study is detailed as follows:

- H0: The performance of the Public sector oil companies is better than the Private sector oil companies.
- H1: The performance of the Public sector is not better than the Private sector oil companies.
 - On the basis of the inferences drawn the industry data, it is possible to draw conclusions about the individual companies.
 - There are certain uncontrollable and controllable factors affecting profits of the companies. it is hypothesized and by controlling the controllable factors, the companies can improve their profit performance.
 - The companies faced multifarious problems during the study period and still it is facing many problems. If these problems are tackled properly, the performance of the companies will improve.

2.8 RESEARCH METHODOLOGY AND DESIGN

- To appraise the production and productivity of the companies, the data has been collected primarily from the annual reports of the selected companies and these are supplemented from other data collected from personal interviews and contacts. The collected data is recasted and presented in the form of condensed balance sheet and income statement. For evaluation, the performance techniques of financial analysis and interpretation such as ratio analysis, trend analysis, comparative statement analysis and common size statement analysis shall be used.

- All the statements and ratios have been analysed and interpreted, and conclusions have been drawn. To arrive at the conclusion, inter firm comparisons have been made and for evaluating the performance, techniques of financial and statistical analysis have been used. Few diagrams and graphs have also been used. At the end, on the basis of conclusion, some suggestions have been made to improve the profitability of the selected companies.

It will not be out of order to point out here that this analysis of the selected oil companies is subject to a number of constraints and limitations. Since the companies do not give separate product wise data on sales, income, profits and other key variables, the results are aggregative in nature and may not necessarily reflect the working of these selected lubricant oil companies.

The companies under the study refused to provide detailed information on various items given in a summarised form in the annual report. They also refused to provide budgets and standards fixed by them. However, the study has been made after having got the desired and useful information through our best possible efforts.

The idea to frame a case study of the selected lubricant oil industry grew out of the conviction that very few studies have been made in this field. The proposed industry undertakes the task of looking into:

1. Evolution and development of lubricant oil industry in India.
2. The appraisal of performance of selected companies located in India.
3. The aim is to know how the companies have utilised their resources and to appraise the performance of production and productivity, working capital, fixed assets, profitability etc.
4. Their contribution to the upliftment of the society, through value added techniques.

2.9 IMPORTANCE OF THE RESEARCH

1. The focus of the proposed research will be to calculate the Financial performance of the selected companies of the lubricant oil.

2. The research will also focus towards the profitability ratios, liquidity ratios, working capital etc.
3. There will be a comparison of the oil companies on the basis of profitability.
4. The research will also show its focus on how to deal with finance of the companies.

2.10 EXPECTED CONTRIBUTION FROM THE STUDY

1. CONTRIBUTION TO THE COMPANY

- a) Comparative statements will be prepared with respect to the value additions to the oil firms under both public and private sectors.
- b) Overall profitability of the oil firms under both the sectors will be calculated.

2. CONTRIBUTION TO THE GOVERNMENT AND SOCIETY

The research will also contribute towards government and the society.

3. CONTRIBUTION TO THE STAKE HOLDERS

A Number of data will be made available from the study as specified here under:

- a) Analysis of the ratios can be easily understood.
- b) Working capital of the oil firms under both the sectors can be compared.

2.11 LIMITATIONS OF THE STUDY

1. This evaluation is based on the secondary data generated through published financial statements of the companies as such its findings depend entirely on the accuracy of such data.
2. Different experts have got different views on evaluating attitude and general practice of the organization hence the view used in the study for the present purpose can not be treated as the absolute and perfect.

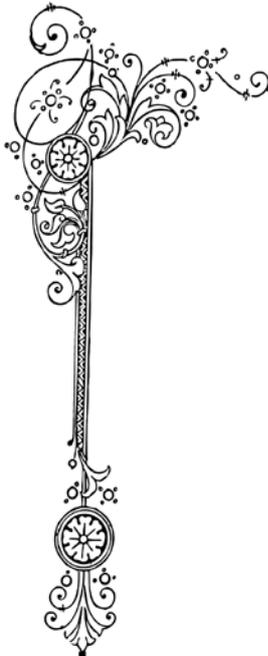
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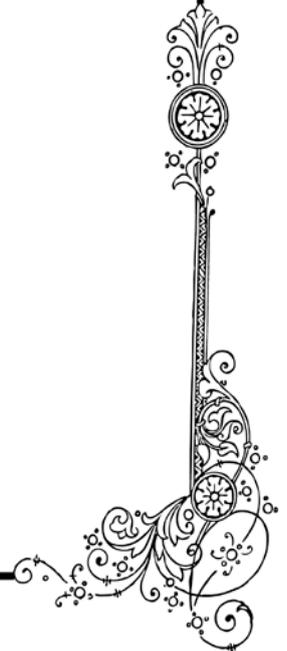
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CHAPTER 3:

*Oil Industry-
A Bird's Eye View*



CHAPTER-3

OIL INDUSTRY- A BIRD'S EYE VIEW

3.1 BRIEF HISTORY OF LUBRICANT OIL INDUSTRY

In the global lubricant market, India occupies fifth position. Indian lubricant market which was a monopoly in the energy and oil market has now faced the entry of Domestic companies as well as MNCs after the liberalisation. The demand of high performance products have been increased day by day as the consumers are becoming more aware of the lubricants and the energy. Lubricant sector in India is facing stiff competition in the market due to the entry of multinational companies.

On the basis of application lubricants are divided into two areas:

- Automotive and
- Industrial lubricants include the Engine oil, Gear oil, greases, hydraulic and transmission fluids in the automotive segment; Process oil, General Industrial Oil, Metal-working fluids, Industrial Engine Oil and greases in the Industrial segment.

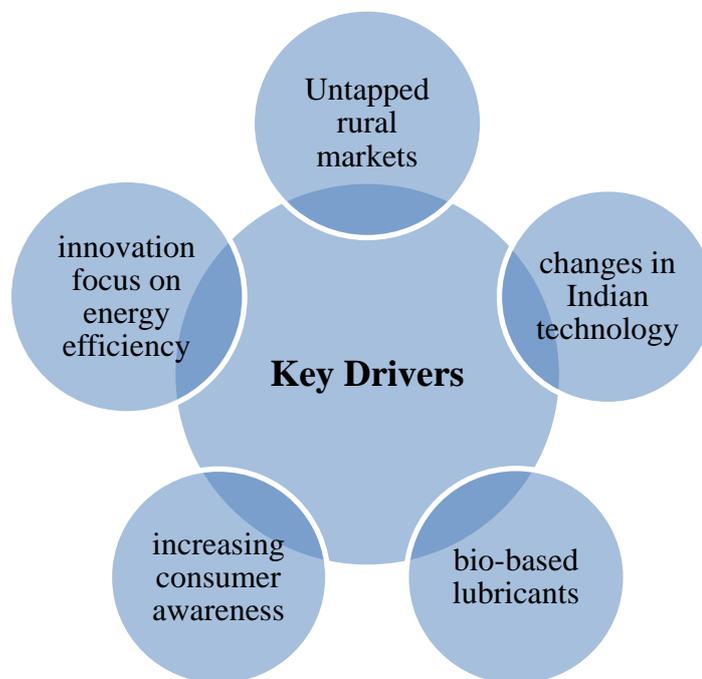


Figure 3.1: Key drivers in India

3.1.1 Lubricant Industry's Background

“Lubricant is nothing but a substance used to reduce the frictions between the surfaces which are when came into the mutual contacts. Due to antifoaming, antioxidant and anti-wear properties of lubricants, the industrial, and agriculture, mining, automobile, steel and manufacturing sectors has wide range of the applications. It is useful as cutting fluids like oil emulsions in several industries which are widely used to cool or lubricate the surface. Automobile sales increase will positively influence lubricants market size growth during the forecast period.

Indian lubricants sector has seen traction in the CY16 after years of tepid volume growth. Core volumes of major listed entities as Castrol India and Gulf Oil Lubricants have grown by 7%/ 13% YOY in the CY16 YTD vs. a 5-year CAGR of -3%/ +7%. Rent growth in the industry was driven by continued momentum in the personal mobility space coupled with recovery in the industrial segments and commercial vehicles. Nowadays, we see the steady margins and volume recovery based on a strong auto and industrial fuel consumption, benign oil price environment, push towards premiumisation and slowing drain interval growth. We expect lubricant marketers in the market to see the better coverage on Castrol India or Gulf Oil and profitability with Buy ratings and the target prices of INR 550/ 950.

The Indian lubricant sector is 2.8 mmtpa (3.1 bn ltrs, conversion of 1.11x) market with automotives holding 42% of total volume share, industrial 23% approx. , transformer/ white oils 23%, process oils as 8%, greases as 4%. It involves 30 market players both PSU ad Private, Integrated and standalone, domestic and industrial. Castrol estimates 55% market share along with the PSU OMCs (IOCL, HPCL, BPCL) in coming years in Bazaar trade, 20% with MNCs (Total, Shell, Mobil, Motul, Valvoline) and 25% with rest of the private players (Gulf, Tide Water oil, GOLI, Savita, Raj)”. (www.gminsights.com, 2016)

3.1.2 Lubricants Market, Region wise

“Increase in the demand for the machinery maintenance from manufacturing sector to further minimize the operational cost will stimulate business growth of the lubricant sector in future. Also increase in the demand from machining, mining,

plastics and metal forming industries, mostly in China and India, results in capability expansions. This shows Asia Pacific is expected to witness growth during the forecast period. Indian market size for lubricants is expected to witness growth over 11% in revenues perspective during forecast timeframe owing to strong domestic lubricant consumption demand through manufacturing and automotive industries. It is to be predicted that by April 2016 the sales of the passenger vehicles, scooters and demand for motorcycle increase by over 10%, 33% and 15% respectively which positively encourage the industry outlook during forecast time duration". (www.consultmcg.com, 2015)

China's market size share for lubricants is expected to influence by the installations of large no. of power plants. European lubricant's market size in future is affected by the factors such as increasing focus on carbon dioxide by, the factors such as increasing focus on carbon dioxide reduction. Germany's contribution to regional volume share in 2015 is above 10% which may show a growth of 5% in revenue from 2015-22. The demand for capital goods, consumer goods and construction sector affects the overall outlook of the company. The share of U. S in the lubricant market was above 5 million and is expected to grow in future by investing in infrastructure sector. America's infrastructure will be brought into good position if American society of civil engineers will invest approximately USD 3.5 trillion by 2020.

3.1.3 Competitive Market Share

The main lubricant market players which produce mineral oils additives are British Petroleum, Sinopec, Shell and Total. Companies receive benefits in the operational scope and market via integration. The supply of raw material is insured by the collaborations of most of manufactures with the oil and gas organisations. The scarcity of the crude oil and oil reserves has made the market witness decline in the raw materials. In order to balance the decline oil and gas organisations has started lying emphasis on developing new refining technologies. The companies like Shell, Mobil, BP and Chevron constituted 40 % of the overall demand during 2014.

3.2 INTRODUCTION OF THE SELECTED COMPANIES OF OIL INDUSTRY

3.2.1 Indian Oil Corporation Limited- introduction

The company Corporation Limited (IOCL) or The company is the India's largest commercial enterprise with huge turnover of INR 4, 38,710 crore (USD \$ 65,391 million) and profits of INR 19,106 crore (USD \$ 2,848 million) during 2016-17. Market capitalization of the organization grew two fold from INR 95, 564 crore (31st March 2016) to INR 1, 87, 948 crore (31st March 2017) which shows the drastic improvements in terms of operational and financial performance for the FY 2016-17. Due to the rise in the share price and the improvement in the market capitalization makes the entry of IOCL in Nifty50 Index (NSE benchmark index of 50 best performing corporate entries), also ranked 161st in world's largest corporate in Fortune Global 500 listing during 2016 as first Indian enterprises. IOCL has been meeting India's energy demands for over half a century supporting by 33k strong workforce currently with corporate vision to be 'The Energy of India' and to become 'A globally admired company' due to which IOCL Business Interests strategically the entire Hydrocarbons value chain from the refining, marketing of petroleum products, natural gas and petrochemicals, pipeline transportation to exploration and production of the crude oil and gas. It also enters into the alternative energy and globalization of the downstream operations to expand the business. IOCL set up its subsidiaries in international market- Sri Lanka, Mauritius and UAE, also expanding in energy markets of Asia and Africa drastically forming 20 joint ventures with reputed and trusted business partners from Indian market and abroad for diverse business interests. IOCL accounts for 50% of India's petroleum products related market share, 35% in national refining capacity along with CPCL., Chennai, 71% downstream sector pipelines through capacity. IOCL operates and owns 11 of India's 23 refineries with combined capacity of 80.7 MMTPA. The pipeline network for the transportation of finished products to high demand centers and crude oil to refineries across the cross-country is spread around 12, 848 km. To achieve the energy needs of the consumers and end users in an efficient, economical and environmental friendly manner, IOCL has throughput capacity of 93.7 MMTPA and

9.5 MMSCMD for crude oil, petroleum products and gas respectively. IOCL has strong portfolio of leading energy brands- Indane LPG cooking gas, XTRAPREMIUM petrol, SERVO lubricants, PROPEL petrochemicals, XTRAMILE diesel and others. Most of the trusted and well known brands are Indane and servo among all. IOCL is 2nd largest player in domestic petrochemical market with footprints in 73 countries offers petrochemical products and intermediates as PROPEL whose grades covers 90% of plastic applications due to which 52+ polymer grades have been introduced in domestic market. In 2004, The company made entry into petrochemicals with commissioning of India's largest LAB (Linear Alkyl Benzene used in detergents preparation) plant at Koyali Refinery and in 2006, an integrated PX/PTA (Paraxylene/Purified Terephthalic Acid) complex opened at Panipat, Haryana which is single largest unit in India with capacity of 553k MTPA produces polyester intermediates. In 2010, IOCL achieved another milestone which is a world-class Naphtha Cracker with downstream polymer units set up at Panipat which is the largest operating cracker capacity in India producing polymer (plastics) intermediates.

Vision

The company's vision as specified in its web site is Indian Oil's 'Vision with Values' encompasses the Corporation's new aspirations and innovations to broaden its business and dynamism among the employees. In 2009, Golden Jubilee year of the organization adopted as a shared vision of IOCL stakeholders- "Corporation's endeavors to be 'The Energy of India' and to become 'A globally admired company'".

The vision of the company with the core values of Care, Innovation, Passion and Trust helped the company to achieve and grow in the sector year after year.

Vision with Values

It encompasses the Corporation's new aspirations which are "to broaden its horizons, to expand across new vistas, and to infuse new-age dynamism among its employees". Adopted in the company's Golden Jubilee Year- 09, as a "shared vision" The company People & other stakeholders, it is a matrix of six cornerstones

that would together facilitate the Corporation's endeavors to be 'The Energy of India' & to become 'A globally admired company'. The Vision is infused with the core values of Innovation, Passion, Care and Trust; most importantly, which is embody the collective conscience of company & its people, & have helped it to grow & achieve new heights of success year after year.

The Company's Vision

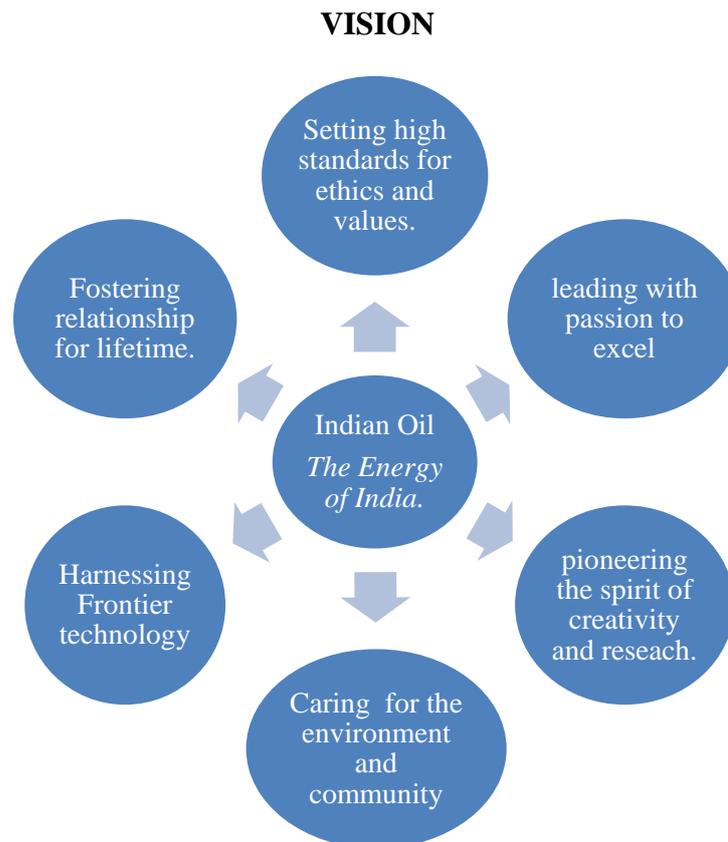


Figure 3.2: Vision with Values of the Company

“It is the country's largest commercial enterprise & flagship Oil Company across the nation. IOCL has a privilege of being a corporation that provides the petroleum products which are crucial to turn the wheels of progress of nation. It also understands the importance of creating a benevolent social impact of work & minimizing the diverse impact of energy use on ecology system. The Corporate Social Responsibility (CSR) is guided by IOCL's corporate vision of caring for environment & the community. It believes that CSR is the continuing commitment

by business to behave ethically & contribute to economic development while improving the quality of life of the workforce & their families or local community or society at large scale.

The company strives for the sustainable development which is the key for building a framework that would lead to social equity, economic growth, efficient management of resources & environment. Its CSR & Sustainability vision is to operate its activities in providing the energy solutions to its customers in a manner that it is safe, efficient & ethical which minimizes the negative impact on environment & enhances the quality of life of the community towards sustaining a holistic business purpose.

Since 1964, IOCL engaged in the various activities to up-lift up the conditions of people living in neighborhood of its unit's installation. The core thrust areas of IOCL as Sustainability and CSR initiatives fall under the Schedule VII to Companies Act 2013. These activities are undertaken in the vicinity of the business units & for stakeholders in the value chain of Indian-Oil's line of business. Activities are undertaken in the backward areas & for underprivileged sections, ST/ SC/ OBC/ PWD with sole intention of nation building". (www.iocl.com)

CSR Progression of the company

The company's responsibilities towards the social responsibility activities have increased over the time. The expected budget has slowly been increased from 0.5 % of previous year's net profit (since 1991) to 2 % of previous year's retained profit (2009 onwards). As per Companies Act 2013 and rules thereof, it has aligned the CSR activities & policies as per the Company Act.

IOCL Sustainability Initiatives

If you will consider India and The company Corporation then sustainable development is the only way forward for growing economies with responsibility at utmost commitment. Most of these initiatives are not funded as per CSR Budget but are very much supportive in the development of communities at large scale, say for

example, energy conservations which will help in the re-distribution of the resources & providing a greener environment to the ecological system.

ACTIVITIES

Development of Green Belts & Eco Parks

Tree plantation is one of the on-going activities nearby IOCL establishment areas. As per the company Operations, the development of green belts and ecological parks are one of the significant features, say for example, all the refineries have developed green cover. IOCL took the guidance from the most eminent Botanists; taken in scientifically planning & development of the green belts across the refineries.

CSR Flagship Projects

“The following are some of the flagship projects & some continuous projects:

- **LPG Scheme for BPL families**

IOCL contributes 20 % of 2 % of previous year's net profit (NP) towards one-time grant to BPL families located in the rural areas for the release of new LPG connections under MoP & NG LPG Scheme where security deposit for 1 cylinder & 1 pressure regulator is provided to householders from the fund created for the purpose under the CSR budget. During the year 2015-16, 22.8 Lac new connections were released by the organization & cumulatively 32.4 Lac BPL families have benefitted from it.

- **Swachh Bharat Abhiyaan**

As per the clarion call given by Hon'ble Prime Minister on 15th Aug 2014, IOCL responded, & engaged actively in “Swachh Bharat Abhiyaan” across the country in various locations/ installations/ nearby vicinity. It organized the various events to sensitize the employees, families, general public & held walkathons, tree plantations, debates, cleanliness drives, street plays, skits, poster making competitions etc. across the nation. Sports icons actively participated in the campaign on the rolls of The company and cumulatively 3600+ such events were

organized so far. The regular inspections of toilets at fuel stations were also carried out under cleanliness, 10 decentralized waste-to-fuel plants with total waste recycling capacity of 50 tons/day are under implementation stage at Varanasi.

- **Swachh Vidyalaya Abhiyaan**

Toilet constructed by The company at Birhangaon High School, Bongaigaon, Assam. Under Govt. of India's Swachh Bharat- Swachh Vidyalaya Abhiyaan, it took the initiative to construct or repair 2855 toilets in govt. schools across 16 States, most of schools are allocated were in remote & backward areas of Bihar, Assam, Chhattisgarh, Odisha etc. still IOCL ensured construction or renovation of all toilets in allocated regions within the targeted timelines

- **Indian-Oil's Assam Oil Division Hospital, Digboi, Assam**

The hospital established in 1906 and modernized 200-bed hospital caters to the population in Assam & nearby areas in the North-East region. General & specialized health camps are organized time to time by hospital to reach out to the poor villagers nearby the regions for those mostly that have no access to medical facilities. During the year 2015-16, 16423 non-employee patients were given treatment here.

- **Swarna Jayanti Samudayik Hospital, Mathura, Uttar Pradesh (UP)**

This hospital is 50-bed provides the medical assistance to the nearby residents of Mathura Refinery, UP. 2 mobile dispensaries also go to the villages to provide free medical care to them. It provides the free treatment to the destitute & offers subsidized treatment to others as well. During the year 2015-16, 52660 patients were given treatment and about 8 Lac patients have benefitted from it.

- **Sarve Santu Niramaya (SSN), Digboi, Assam**

In 2012, this unique CSR Project was launched to provide the free health consultation & medicines for both livestock population of Digboi and other human beings in nearby areas. Initially, free health camps were conducted regularly only for the villagers. However, there was a need to extend the same services to the cattle and livestock, as the villagers are highly dependent on them for their livelihood. The pilot project was implemented in Panbari village near Digboi Refinery. During the year 2015-16, 2500 patients & 12200 livestock were given treatment. So far 5400 patients & 57,000 livestock have been treated. ” (www.iocl.com)

Objectives

Following are the objectives of the IOCL-

- “To serve the national interests in oil and other sectors in accordance and consistent with Government policies.
- To ensure maintenance of continuous and smooth supplies of petroleum products by way of crude oil refining, transportation and marketing activities and to provide appropriate assistance to consumers to conserve and use petroleum products efficiently.
- To enhance the country's self-sufficiency in crude oil refining and build expertise in laying of crude oil and petroleum product pipelines.
- To further enhance marketing infrastructure and reseller network for providing assured service to customers throughout the country.
- To create a strong research & development base in refinery processes, product formulations, pipeline transportation and alternative fuels with a view to minimizing/eliminating imports and to have next generation products.
- To optimize utilization of refining capacity and maximize distillate yield and gross refining margin.
- To maximize utilization of the existing facilities for improving efficiency and increasing productivity.
- To minimize fuel consumption and hydrocarbon loss in refineries and stock loss in marketing operations to effect energy conservation.
- To earn a reasonable rate of return on investment.
- To avail of all viable opportunities, both national and global, arising out of the Government of India's policy of liberalization and reforms.
- To achieve higher growth through mergers, acquisitions, integration and diversification by harnessing new business opportunities in oil exploration & production, petrochemicals, natural gas and downstream opportunities overseas.
- To inculcate strong ‘core values’ among the employees and continuously update skill sets for full exploitation of the new business opportunities.

- To develop operational synergies with subsidiaries and joint ventures and continuously engage across the hydrocarbon value chain for the benefit of society at large. ” (www.iocl.com)

Sales turnover, Share capital, Net worth and Net profit of IOCL

Table 3.1: Sales turnover, Share capital, Net worth and Net profit of IOCL (in crores)

	2011-12	2012-13	2013-14	2014-15	2015-16
Sales Turnover	422932.22	47065.59	497114.13	467933.90	407296.02
Share Capital	2427.95	2427.95	2427.95	2427.95	2427.95
Net Worth	57863.21	61107.22	65968.74	99728.72	73948.73
Net Profit	3954-62	5005.17	7019.09	5273.03	10399.03

Capital Structure of IOCL

Table 3.2: Capital Structure of IOCL

Period	Instrument	Authorised Capital	Issued Capital	Paid Up Capital		
				Shares (Nos)	Face Value	Capital
2011-12	Equity Share	6000	2427.95	2427952482	10	2427.95
2012-13	Equity Share	6000	2427.95	2427952482	10	2427.95
2013-14	Equity Share	6000	2427.95	2427952482	10	2427.95
2014-15	Equity Share	6000	2427.95	2427952482	10	2427.95
2015-16	Equity Share	6000	2427.95	2427952482	10	2427.95

3.2.2 Hindustan Petroleum Corporation Limited

Introduction

Hindustan Petroleum Group is a Government of India Enterprise with Navratna Status along with Forbes 2000 listed and Global Fortune 500 company. Originally, it had been incorporated as company under Indian Companies Act 1913 with CIN No. L23201MH1952GOI008858 listed on the BSE and NSE in Indian share market. It owns and operates two major refineries which producing varieties of petroleum fuels and specialties (One in west coast Mumbai of 6.5 million metric tons per annum- MMTPA capacity and other in East coast Visakhapatnam with capacity of 8.3 MMTPA).

HPCL also operates and owns the largest Lube refinery in India which produces Lube base oils of international standards along with capacity of 428 TMT. This account for 40% of overall India's total lubes base oil production. Currently, HPCL produces 300+ lube grades, specialties and greases. It is in collaboration with M/s Mittal Energy Investments Pte. Ltd. operating 9 MMTPA capacity refinery at Bathinda with 49% equity in Punjab holds an equity of 16.95% approx. in 15 MMTPA Mangalore Refinery and Petrochemicals Ltd. (MRPL). HPCL has pipeline network of 3015+ kms. for petroleum products related transportation along with vast marketing network of 13 Zonal offices in most of the major cities and 106 regional offices handled by supply and distribution infrastructure which comprises of terminals, aviation service stations, pipeline networks, Inland Relay Depots and Retail Outlets, LPG Bottling Plants, Lube and LPG distributorships.

HPCL is always consistent in performance due to the fact that they have highly motivated workforce around 11000 employees working across India at its different locations for marketing and refining. It also releases the RTI Information Manual depicts the details of the operations of the organization. It is always committed to achieve economical, ecological and social responsibilities objectives of sustainable development via varied operational activities. HPCL mostly focus on the areas of child care, healthcare, skill development, education, community development and touching lives of weaker section of the society.

In last couple of years, Hindustan Petroleum (HP) reputation varies from people to people, few thinks it has abundant supply of petrol and diesels, few thinks it is for easy availability of lubricants and LPG, few thinks of inexhaustible reservoir of Kerosene and other petroleum products to meet the energy needs. All together it signifies an ever radiant source of the energy which makes a difference to several lifestyles. HPC is targeting the “Future full of energy” and set to unveil new phase in growth and diversifying into power generation, renewable energy ventures, oil exploration and its production etc.

Objectives

Following are the objectives of the HPCL

- To serve the national interests in oil and other sectors in accordance and consistent with Government policies
- To ensure maintenance of continuous and smooth supplies of petroleum products by way of, transportation, crude oil refining and marketing activities. To provide appropriate assistance to consumers to conserve and use petroleum products efficiently.
- To enhance the country's self-sufficiency in crude oil refining and build expertise in lying of crude oil and petroleum product pipelines.
- To further enhance marketing infrastructure and reseller network for providing assured service to customers throughout the country.
- To create a strong research & development base in refinery processes, product formulations, pipeline transportation and alternative fuels with a view to minimizing/eliminating imports and to have next generation products.
- To optimize utilization of refining capacity and maximize distillate yield and gross refining margin.
- To maximize utilization of the existing facilities for improving efficiency and increasing Productivity

(Source: www. hpcl. com)

Mission and Vision

To be a World Class Energy Company known for caring and delighting the customers with high quality products and innovative services across domestic and international markets with aggressive growth and delivering superior financial performance. The Company will be a model of excellence in meeting social commitment, environment, health and safety norms and in employee welfare and relations.

HPCL and its joint ventures are fully integrated organizations in Hydrocarbons sector of production and exploration, refining, marketing, focus on enhancements of quality, profitability and productivity, customer and employee satisfactions, caring for environment and cultural heritage. HPCL also attain scale dimension by diversifying into the other energy fields. It is by taking up transnational operations.



Figure 3.3: Mission of HPCL

The milestones that HPCL has covered so far are

- In 1952 incorporation of HPCL took place as “Standard Vacuum Refining Company of India Limited” on 5th July, 1952.
- In 1962 the company’s name changed from Standard Vacuum Refining Company of India to ESSO Standard Refining Company of India Limited.
- In 1974 the merger of Lube India Limited and erstwhile Esso Standard resulted into new company named HPCL
- In 1972 HPCL took over and merged with Kosan Gas Company.

Table 3.3: Awards and Recognition

•	Reader's Digest Trusted Brand 2015 Gold Award: Received in Petrol Station category for 10th consecutive year
•	Petro fed Oil & Gas Pipeline Transportation- Company of the year Award 2014: Award for 4th consecutive year
•	Consumer Super brands India 2015: Award to HP GAS for 2 nd consecutive time
•	Energy Efficient Unit award: for Mumbai refinery at National Awards for Excellence in Energy Management 2015 by Confederation of Indian Industry (CII)
•	Global HR Excellence Award: for Organization with Best Employee Relation Practices by World HRD Congress
•	National Award for Excellence in Cost Management- 2014: under the category of Public Manufacturing: Organization (Large) by The Institute of Cost Accountants of India (ICAI)
•	Near Miss Incident Reporting- POL Marketing Organization Award: Best POL Marketing Organization Award (Runner up) by OISD
•	Best Overall Performance in Safety for the Year 2013-2014: OISD Award to Mundra Delhi Pipeline (MDPL) for 5th consecutive year
•	Golden Peacock Award 2016: In Innovative Product/ Service category for Pack track portal rolled out by Direct Sales SBU
•	Pratham Puraskar: From Ministry of Petroleum & Natural Gas (MOP&NG) for best Implementation of Official Language during 2014-15
•	Forecourt Retailer of the Year: Award for the 8th time at Star Retailer Awards 2015
•	100 Most Valuable Brands: Trophy to HP GAS for the third consecutive year
•	Excellence in Practice: Award for Project Utkarsh by Association for Talent Development, USA
•	Supply Chain & Logistics Excellence 2015: Award from CII
•	Sustainability and Excellence in Safety: FICCI Award for HSE Innovations viz. near Miss Reporting, HSE Index, MOC, SIL etc
•	Master Brand Award for Club HP, Marketing Excellence Award in Retail Sector & Best Loyalty Programme award for Drive Track Plus: At Global Marketing Excellence Awards 2015 by World Marketing Congress
•	Bunker Operator of the Year: Award by Cochin Port Trust
•	Leadership Excellence Award 2016: For Ji Haan Samarth and Samvad programs, by HR. Com under Best 3rd Party Channel Partner/ Customer Training Program category at Nashville, USA
•	Rajiv Gandhi National Quality Awards: Commendation Certificate to Visakh Vijayawada Secunderabad Pipeline (VVSPL) under large scale service sector
•	Award for Excellence in Corrosion Management: At FICCI Chemicals and Petrochemicals Awards 2015

<ul style="list-style-type: none"> • Best Technology Initiative/ Implementation award and Retailer of the Year (Forecourt Retailing) Award: At Business Excellence Awards 2015 by Asia Retail Congress
<ul style="list-style-type: none"> • Excellence in Overall Performance and Certificate of Appreciation for Commendable Performance: By M/s John Deere
<ul style="list-style-type: none"> • Excellence in Training & Development: Award by Asia Pacific HRM Congress.
<ul style="list-style-type: none"> • Sustainability award for Excellence in Safety: To Mumbai Pune Solapur Pipeline (MPSPL) and Visakh Vijayawada Secunderabad Pipeline (VVSPL) and award to VVSPL for "Commendable work for changing public perception in Petrochemicals Sector" at FICCI Chemicals and Petrochemicals Awards 2015
<ul style="list-style-type: none"> • Quality Excellence Award for Customer Loyalty Program: And Quality Excellence Award for Best Retail Company" at Stars of Industries Awards 2016
<ul style="list-style-type: none"> • Excellence in Employee Relations for the year 2015: Employers' Federation of India (EFI) National Awards in Pan India category
<ul style="list-style-type: none"> • Organization with Innovative HR practices: Asia's Best Employer Brand Awards 2015 in 4 categories- <ul style="list-style-type: none"> ○ "HR Leadership award" ○ "Organization with Innovative HR practices" ○ "Asia's Training & Development Excellence Award for Project AKHSAY" ○ "Best development program in Public sector for Workers for Project UTKARSH"
<ul style="list-style-type: none"> • Best HR Initiative: Award for Yuvantage program in Bronze Category at the Stevie's International Business Awards at Canada
<ul style="list-style-type: none"> • Greentech Platinum award 2015: In Safety Excellence
<ul style="list-style-type: none"> • GreenCo Silver Rating: Cherlapally LPG bottling Plant achieved the distinction of becoming the First LPG plant in India to get it from CII
<ul style="list-style-type: none"> • Excellent Rating: By National Safety Council of India (NSCI) to MDPL. MDPL has become the first in country to achieve the highest "Five Green Triangle Rating" by NSCI
<ul style="list-style-type: none"> • Greentech Safety Award: To MPSPL, VVSPL and MDPL in GOLD Category
<ul style="list-style-type: none"> • Greentech CSR Award 2015: To VVSPL in Gold Category
<ul style="list-style-type: none"> • Greentech Environment Award 2015: To MPSPL in Silver Category for Petroleum Storage & Transportation
<ul style="list-style-type: none"> • NSCI Safety Awards 2015: MDPL Group of Pipelines (Mundra Delhi Pipeline, Ramanmandi Bahadurgarh Pipeline, Ramanmandi Bathinda Pipeline and Awa Salawas pipeline) awarded winner under bronze category for the second consecutive year
<ul style="list-style-type: none"> • NSCI Safety Awards 2015: Certificate of Appreciation for VVSPL

•	International Safety Awards 2016: MDPL awarded winner under merit category by British Safety Council for the 3 rd consecutive year
•	Golden Peacock Occupational Health & Safety Award: For Mazgaon lube plant
•	14th Annual Greentech Safety " Gold " and "Silver" awards: Visakh LPG terminal and Paharpur LPG Plant awarded winner respectively by M/s Greentech Foundation for outstanding achievement in safety management
•	Unnatha Suraksha Puraskara: For MLIF, Mangalore and Mysore LPG Plants at Safety Awards 2015 in LPG Plant Category from National Safety Council (Karnataka Chapter)
•	Best Overall Performance Award among the big states (Category-I) and SLC - Delhi with "Best Overall Performance Award among small states (Category-II): OGCF Award to State Level Coordinator (SLC) of Telangana and Andhra Pradesh
•	National Safety Council Award: To Usar LPG Plant for 'Lowest Average Accident Frequency Rate' and 'Longest Accident Free Period' under the category of Storage, Handling and Distribution of Petroleum Products by National Safety Council (Maharashtra Chapter)
•	Greentech Safety Award 2015 and "National Award for Manufacturing Competitiveness 2014 -15": For both Mazgaon & Silvassa lube plants
•	Certificate of Merit: To Vashi White Oil & Black Oil Terminals for third consecutive year by National Safety Council (Maharashtra Chapter)

(Source: www.HPCL.com)

Joint Ventures and Subsidiaries:

Marketing and Refining of petroleum products is the core business of the HPCL Corporation. There are lots of opportunities which have been explored to access the new revenue streams and augment downstream business point of view. Hence HPCL has formed Joint Venture companies and subsidiaries for pipeline, city gas distribution (CGD), LPG cavern, refining, bitumen emulsion, natural gas pipelines, LNG terminal and bio-fuels.

The following links direct you to the official websites of the organizations and their information provided and views expressed from the organization perspective. HPCL is not liable for the views and accuracy of content in the following websites:

Joint Ventures:

- HPCL-Mittal Energy Ltd. (HMEL)
- Hindustan Colas Pvt. Ltd. (HINCOL)
- South Asia LPG Co Pvt. Ltd. (SALPG)
- Bhagyanagar Gas Ltd (BGL)
- Aavantika Gas Ltd (AGL)
- Petronet MHB Ltd (PMHBL)
- Mangalore Refineries and Petrochemicals Ltd (MRPL)
- Mumbai Aviation Fuel Farm Facility Pvt. Ltd. (MAFFFL)
- GSPL India Gasnet Ltd (GIGL) and GSPL India Transco Ltd (GITL)
- HPCL Shapoorji Energy Pvt. Ltd. (HSEPL)
- Godavari Gas Pvt. Ltd. (GGPL)

Subsidiary Companies:

- Prize Petroleum Co Ltd. (PPCL)
- HPCL Biofuels Ltd. (HBL)
- CREDA-HPCL Biofuel Ltd. (CHBL)
- HPCL Rajasthan Refinery Ltd. (HRRL)

(Source: www.HPCL.com)

Sales turnover, Share Capital, Net Worth and Net Profit of HPCL

Table 3.4: Sales turnover, Share Capital, Net Worth and Net Profit of HPCL (in crores)

	2011-12	2012-13	2013-14	2014-15	2015-16
Sales Turnover	2993.27	3120.86	3179.62	3918.62	3791.42
Share Capital	247.28	494.56	494.56	247.28	247.28
Net Worth	604.20	649.23	751.42	496.78	575.61
Net Profit	481.03	447.39	674.91	474.56	615.26

Capital Structure of HPCL

Table 3.5: Capital Structure of HPCL

Period	Instrument	Authorised Capital	Issued Capital	Paid Up Capital		
				Shares (Nos)	Face Value	Capital
2011-12	Equity Share	349.25	339.33	339330000	10	339.33
2012-13	Equity Share	349.25	338.63	338627250	10	338.63
2013-14	Equity Share	349.25	339.33	339330000	10	339.33
2014-15	Equity Share	349.25	339.33	339330000	10	339.33
2015-16	Equity Share	349.25	339.33	339330000	10	339.33

3.2.3 Castrol India Limited- Introduction

Castrol is the world's leading manufacturer, marketer of premium lubricants oils and greases, distributor and provided the services related to automotive, industrial, aviation, oil exploration, marine and production to the customers across the globe, HQ located in the UK operates directly in 46+ countries with 7500+ supporting staff worldwide. It has third party distributors who market and sell the products locally in 74+ other countries. It has delivery network which extends throughout 120 countries already covering 800 ports partnering with 2000+ distributors and agents.

It offers varieties of lubricants for domestic, industrial and commercial applications like for automotive lubrication which includes motorcycles 2-stroke/ 4-stroke engines, car petrol/ diesel engines it provides extensive range of manual and automatic transmission fluids, coolants, suspension fluids, chain lubricants, brake fluids along with maintenance products. It also produce the products for agricultural machinery, marine engineering and for general industries. Almost all products have a global chemical registration status meeting the compliance in all different locations wherever the product is used.

- Automotive Lubricants- Developed for supplying lubricants, consumers, specialties such as gear oils, greases, and ancillary products. It also serves the services to cars, motorcycles, commercial vehicles which includes the heavy duty consumer trucks, mining, agriculture vehicles etc.
- Aviation, industrial, marine and energy lubricants- Developed for the B2B community, supplying solutions to industries as manufacturing, mining, shipping, aviation, oil and exploration. The global business operations for the lubricants provide the worldwide assurance and improved productivity and environmental products. It also delivers trusted advice focused on optimizing our customer's business process of production.

Castrol has 7 R&D centres across the globe which helps in pioneering technology to develop and test hundreds of innovative products every year. People work closely with leading industries OEMs to whom Castrol supplies a broad range of products in lubricants category designed especially for operating conditions and environment specific to the business. The varieties of products developed here are recommended by the big giants and co-engineered with major OEMs- Audi, Ford, BMW, MAN, JLR, Honda, Volvo, Skoda, Seat, Tata and Volkswagen for their innovative 'new to the world' power trains.

In 1910, History of Castrol India dates back when few automotive lubricants from C. C. Wake filed and company made an entry to the Indian Lubricant market which set up its first overseas branch office in Mumbai as a trading unit. Over 100 years, Castrol has a proud heritage of success and innovations and it becomes the leading automotive and industrial lubricants manufacturing and marketing organization in India named as Castrol India Limited. It is public limited company with 51% of share held by BP Group/ Castrol Limited UK through its wholly-owned subsidiary where Castrol Limited and balance being held by the general public; including 3 manufacturing plants at Patalganga, Paharpur and Silvassa. Three plants serving a distribution network of 105k retail outlets, B2B customers through 420+ distributors.

It provides a high performance range of products and services across the segments- industrial, automotive, marine and energy. Castrol is the market leader in Retail Automotives providing iconic and high performance brands like Castrol MAGNATEC, GTX and EDGE for passenger 4-wheelers, Castrol Active and Power1 for 2-wheelers and Castrol CRB, RC and VECTON for heavy vehicles. Castrol also offers the products range for industrial applications and is also market leader in corrosion preventives and metal cutting fluids. Castrol India works very closely with OEMs leaders; supplying lubricants specially designed for specific operating conditions and environments which is recommended by and co-engineered with major OEM in the lubricant sector. Castrol provides wide range of products by offering quality high performance innovative products backed by high levels of customer service

The history of Castrol India started in 1910 when certain automotive lubricants made an entry in Indian Market from C. C. Wakefield and Company. This company also set up its first overseas branch office in Mumbai, India as a trading unit.

“Castrol India Ltd. (CIL) is one of the leading industrial and automotive lubricant marketing and manufacturing organizations in India with proud heritage of success stories and innovation since over 100+ years in India.

One of the part of Castrol Limited UK (BP Group subsidiary), Castrol India Ltd. is a public limited company with 51% share held by BP Group through its wholly-owned subsidiary, Castrol India Ltd. , & the balance being held by general public along with three manufacturing plants at Patalganga, Paharpur & Silvassa. These are having B2B customers through over 420 distributors and serving a distribution network of 105,000+ retail outlets.

Castrol India Ltd. (CIL) provides a high performance range of products and services across industrial, automotive, energy and marine segments. Castrol India Ltd. is the market leader in retail automotive lubricant segment. It provides high performance and iconic brands like:

- Castrol MAGNATEC, Castrol EDGE and Castrol GTX for passenger cars
- Castrol Active and Castrol Power1 for motorcycles
- Castrol RX, Castrol CRB and Castrol VECTON for trucks
- Others including specialty products

Castrol India Ltd. history is driven by Innovation which creates Castrol India Ltd. as a Brand in India; founded by Charles “Cheers” Wakefield, CASTROL’s reputation for breaking the new and innovative ground spans more than a century. In 1899, Wakefield himself and his visionary idea who took an interest to develop lubricants for two innovative emerged motorized contraptions- aero plane and automobile. This innovative and pioneering approach of Castrol India Ltd. would go from strength to strength over next 100 years as expected.

Castrol India Ltd. started from small and family-run business to becoming a world class famous lubricant marketer. Castrol India Ltd. have seen great things happen and they made great things happen, together. Castrol India Ltd. spread across the geographies but still one family which is connected by a passion to build and protect a rich brand legacy created 100+ years ago. Castrol India Ltd. captured the best talent in the industry and collaboration done amongst them across a vast range of high-performing and fast-paced functions which helps the Castrol India Ltd. team to keep pushing in each and every market. Castrol India Ltd. follow the principle of “To reach higher, to achieve more- It is what makes a future with us so compelling and it is what makes us believe in everything we do”.
(www.castrol.com)

CASTROL’S CORPORATE SOCIAL RESPONSIBILITY

“Castrol India Ltd. (CIL) is a part of BP Group worldwide which is aligned to BP Code of Conduct for guidance and support to conduct the business ethically and to comply with the law to achieve the success. The motive of Castrol India Ltd. is to respect the communities they work with and want them to benefit from the presence of the organization.

BP Group defines responsibilities at 3 levels

- Legal compliances
- Being a progressive operator
- Evidencing leadership

CSR of CASTROL INDIA

Amongst the three responsibilities, 1st two responsibilities lie in what they call the sphere of control and “Responsible Operations”. Here is the control of the choices made which is further accountable for the outcomes. Because of this, Castrol India Ltd. are able to generate considerable benefits for the society like salaries, dividends, taxes, capability development and varieties of products.

At a further level, it will help in solving the challenges which is directly relevant to the long-term business strategy and business growth due to which we recognize the importance and need to make a focused contribution towards the development of social and economical perspective. ” (www.castrol.com)

Activities

Corporate Social Responsibility (CSR) Practices at CASTROL INDIA

It's almost a century that Castrol has a presence in India which involves CSR Programme that has evolved from charitable giving to a strategic corporate social programme seeks to support and provide help to the communities where Castrol India Ltd. operates in and its key stakeholders. Castrol India Ltd. initiated CSR Programmes aligns business risks and opportunities with the national plans of development priorities to meet the aspiration and need of the populace. In alignment with core competencies, skills and vision of engaging with key stakeholders to contribute to safer and better quality of life, the Castrol's CSR Programme focus on following 4 pillars:

- **Ehtiyat-** Collaborating for safer mobility (flagship pillar)
- **Eklavya-** Strengthening the skills in the industrial and automotive sectors along with the focus on newer technology
- **Ekjut-** Community development in the areas of the operation
- **Ehsaas-** Humanitarian aid.

Sales Turnover, Share Capital, Net worth and Net Profit of Castrol India Limited

Table 3.6: Sales Turnover, Share Capital, Net worth and Net Profit of Castrol India Limited (in crores)

	2011-12	2012-13	2013-14	2014-15	2015-16
Sales Turnover	2993.27	3120.86	3179.62	3918.62	3791.42
Share Capital	247.28	494.56	494.56	247.28	247.28
Net Worth	604.20	649.23	751.42	496.78	575.61
Net Profit	481.03	447.39	674.91	474.56	615.26

Capital Structure

Table 3.7: Capital Structure of Castrol India Limited

Period	Instrument	Authorised Capital	Issued Capital	Paid Up Capital		
				Shares (Nos)	Face Value	Capital
2011-12	Equity Share	248	247.28	247280596	10	247.28
2012-13	Equity Share	495	494.56	494561192	10	494.96
2013-14	Equity Share	495	494.56	494561192	10	494.56
2014-15	Equity Share	495	247.28	494561192	5	247.28
2015-16	Equity Share	495	247.28	494561192	5	247.28

3.2.4 Apar Industries- Introduction

“The Apar Group believes strongly in collaborative growth and this vision only makes it India’s most trusted and successful business conglomerates which evolved over the years into a US \$850 million organization. It has traced a route of growth in many continents and many diverse cultures. Apar Industries Limited is the best dynamic example of growing downstream client’s needs via manufacture of niche products- specialty oils, power transmission conductors and power cables. As per the Apar policies, it promotes and encourages the economic, social and educational development in the society returning wealth to the system they serve and as a trusted organization it has provided education, healthcare and mid day meals

initiatives towards the society. Apar group is also focusing on integration of innovative technologies in its operations and product development. It is ready to realize its vision and the objectives with a holistic approach in business operations along with the loyal dedicated workforce create value and corporate citizenship. The challenges in near future will only help to enhance Apar Group's performance and transform the innovative dreams to reality. The organization follows the ethical behaviour from the legacy till today. Apar Group is committed to provide a safe and healthy workplace in the premises as employees, associates and contractors are important than anything else and Apar is making sure about returning back of all workforce to home safely each day and committed to ensuring zero harm to them. This all is integral part to Apar Business and it is laid down in health and safety policies and measures, standards and working procedure.

Sales turnover, Share Capital, Networth and Net Profit of Apar Industries

Table 3.8: Sales turnover, Share Capital, Networth and Net Profit of Apar Industries (in crores)

	2011-12	2012-13	2013-14	2014-15	2015-16
Sales Turnover	3454.54	4895.09	4955.12	5498.26	5482.83
Share Capital	35.97	38.47	38.47	38.50	38.50
Net Worth	470.96	560.20	606.77	636.92	764.46
Net Profit	59.31	102.16	68.79	47.86	156.98

Capital Structure

Table 3.9: Capital Structure of Apar Industries Limited

Period	Instrument	Authorised Capital	Issued Capital	Paid Up Capital		
				Shares (Nos)	Face Value	Capital
2011-12	Equity Share	92	38.5	35972394	10	35.97
2012-13	Equity Share	92	38.5	38470431	10	38.47
2013-14	Equity Share	92	38.47	38470431	10	38.47
2014-15	Equity Share	92	38.47	38496503	10	38.5
2015-16	Equity Share	102	35.97	38496769	10	38.5

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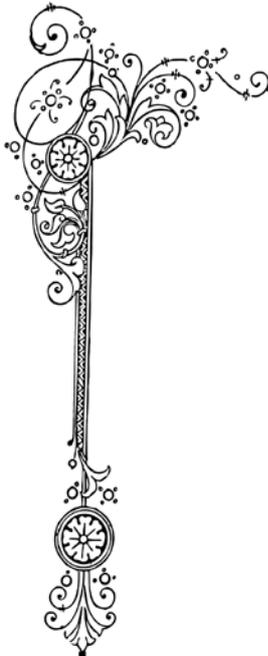
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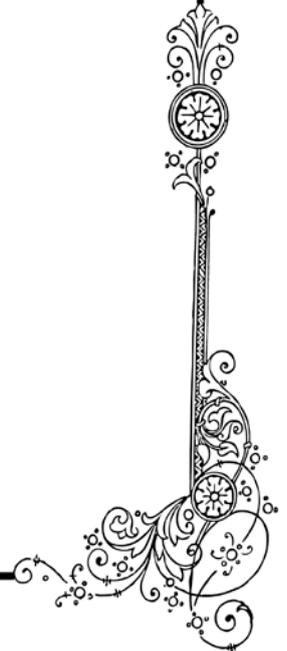
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CHAPTER 4:

Profitability



CHAPTER-4

PROFITABILITY

4.1 CONCEPT OF PROFITABILITY

According to Hermanson Edward and Salmonson, “Profitability is the relationship of income to some balance sheet measure which indicates the relative ability to earn income on assets employed.” (Hermanson, 1983)

Profitability basically indicates the efficiency of the business. It is the ability of the firm to earn profits from all the activities and the operations of the business are carried out on the basis of profitability. It also tells how the business is utilizing its resources in an efficient manner. Profitability is the earning capability of the business. It is very important for a business to increase its earnings so as to continue its operations. The capability to earn is also known as the “earning performance of the business”. So it is always better for a business to have high profitability.

4.2 PROFIT AND PROFITABILITY

Profit and profitability both are directly related to each other. Profitability comes out of profit. Profitability will be more in case of high profits and less if the profit will be low.

As per Sam R. Goodman,” Profit is a residual. It is a static historical term more geared to a reporting function than to a decision making.” (Goodman, 1970)

Sam R. Goodman also said that,” Profit is an owner –oriented concept and is tied into the ownership shares of national income and the provision. On the other hand, as a concept it is taking to the levels of profit which lead themselves to be the least number of alternative accounting measure the profit is directly attributable to the existence of a product and identify marginal contribution. It is essentially an internal measure of new wealth creation. Thus, whereas the accounting concept of profit measures that have been accumulated, the analytical concept of profitability is concerned with future accumulation of wealth,” (Goodman, 1970)

According to Lyndsey Hrabik, “Profit isn’t a word that nonprofits feel comfortable with. It implies that they’re making money when they’re trying to make an impact instead.” (Goodman, 1970)

But adding four letters to the dirty word nobody wants to talk about is vital for nonprofits, and completely changes the meaning—profitable.

Just because you’re a non-profit doesn’t mean you can’t be profitable.

When a business is profitable it means that they’re making money. That’s not the only version of profitable, though. “Profitability can also refer to something that is beneficial, worthwhile and productive—all things you should be striving for.” (Gupta, 2003)

Profit and profitability being similar concepts still there is a lot of difference. "The accounting concept of profit measures what have been accumulated, the analytical concept of profitability is concerned with future accumulation of Wealth." (Gupta, 2003)

Profit is basically find out after meeting all the expenses like administrative expenses, manufacturing expenses, selling expenses etc. Whereas profitability means to what extend the profits of the company can be increased. The profits of two identical firms may be similar at a point but their profitability will surely vary as the means to extend profits of two firms may not be same. Profit and profitability both work together in the business in the same manner as pulse and blood work in the human body. According to Hermenson Edward and Salmonson “profitability is the relationship of income to some balance sheet measure which indicates the relative ability to earn income on assets employed” (Gupta, 2003)

4.3 MEASUREMENT OF PROFITABILITY RATIOS:

Profitability ratios are calculated to know the earning capacity of the organisation. As the name indicates profitability ratios are calculated to know the efficiency of the business.

For the appraisal of lubricating oil firms in India under study has been examined through 'profitability ratios.' As stated earlier, there are two area of concern for judging profitability (1) profitability in short run, i. e. relationship on income statement which indicates a company's ability to recover cost and expenses; and (ii) profitability in the long run, i. e relationship of income to some balance sheet measure which indicates the relative ability to earn income on assets and capital employed. On this basis, profitability ratios can be segmented into three groups: (a) profitability ratios in relation to sales, (b) profitability ratio in relation to sales, and (c) profitability ratio in relation to capital employed. The sales based profitability ratios are Gross profit ratio, net profit ratio, expenses ratio, operating ratio. Profitability ratios in relation to assets and capital employed are operating profit to operation assets ratio, return on capital employed, and return on net worth, earning per equity share of the company will be discussed.

CLASSIFICATION OF PROFITABILITY RATIOS

4.3.1 PROFITABILITY IN RELATION TO SALES: These ratios are calculated to find out the profit earning capacity of the firm. These are of following types:

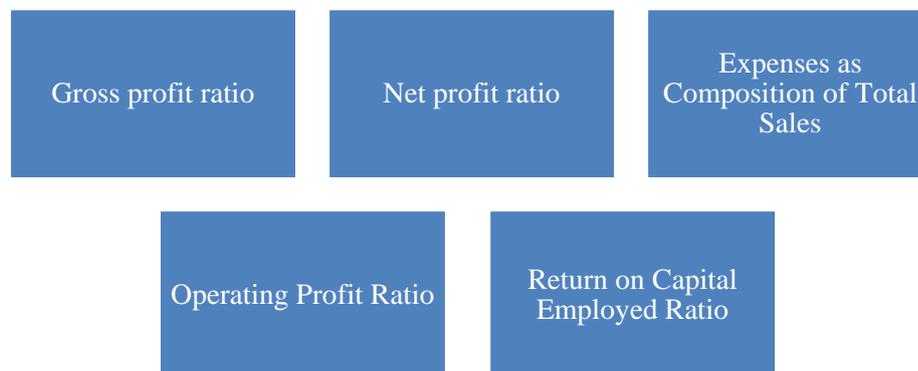


Figure 4.1: Classifications of Profitability Ratios

A) **Gross Profit Ratio:**

The formula for calculating gross profit ratio is:

$$\frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$$

Indications:

- Net Sales is the difference between Gross sales and sales returns.
- Gross profit is the difference between Net sales and all the direct expenses like manufacturing expenses, factory cost, expenses directly related to purchases.

Gross Profit ratio basically tells about the efficiency of the organisation to produce goods. Higher the gross profit ratio indicates that the organisation is able to produce more at lower cost and lower gross profit ratio indicated that organisation is able to produce goods at higher cost.

A higher Gross profit ratio is the indicator of good efficiency of the organisation.

Table 4.1: Gross profit ratio of lubricant oil companies (in%)

	2011-12	2012-13	2013-14	2014-15	2015-16	Average
Indian oil	3.40	1.90	2.10	1.28	4.33	2.60
HPCL	1.35	1.10	1.35	1.78	2.92	1.7
Castrol India Ltd	19.09	20.66	20.06	25.95	28.48	22.84
Apar Industries Ltd	5.06	5.99	5.46	4.19	6.34	5.40

Table 4.1 shows the gross profit in relative terms as percent of net sales. As regards, Indian oil, the gross profit ratio ranged from 3.40 percent in 2011-12 to 4.33 percent in 2015-16. It showed a decreasing trend in the year 2012-13 and 2014-15 but again it showed an increasing trend in the year 2015-16. The average gross profit ratio of this company is 2.60 percent. The management is very much interested in the calculation of this ratio.

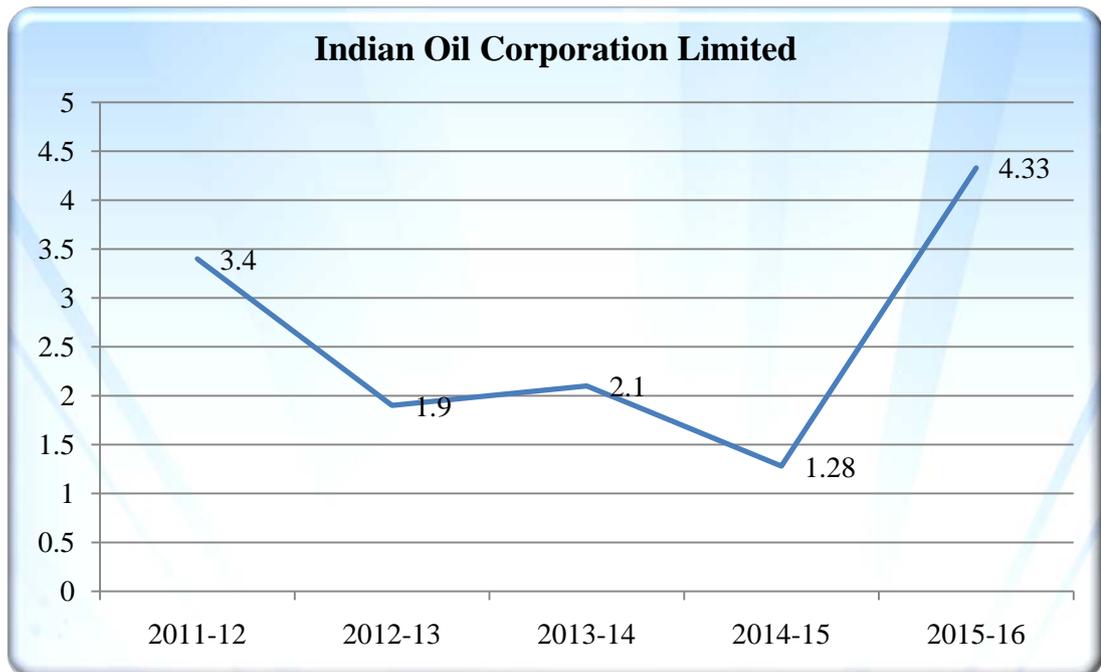


Figure 4.2: Gross Profit ratio of IOCL from year 2011-12 to 2015-16

As regards to Hindustan Petroleum Limited, the company showed its gross profit ratio from 1.35 in 2011-12 to 2.92 in the year 2015-16. The company showed fluctuating change in gross profit ratio in the last five years but showed an increasing trend in the year 2015-16. The average gross profit ratio of the company is 1.7 which shows company needs to grow up more as regards to gross profit ratio.

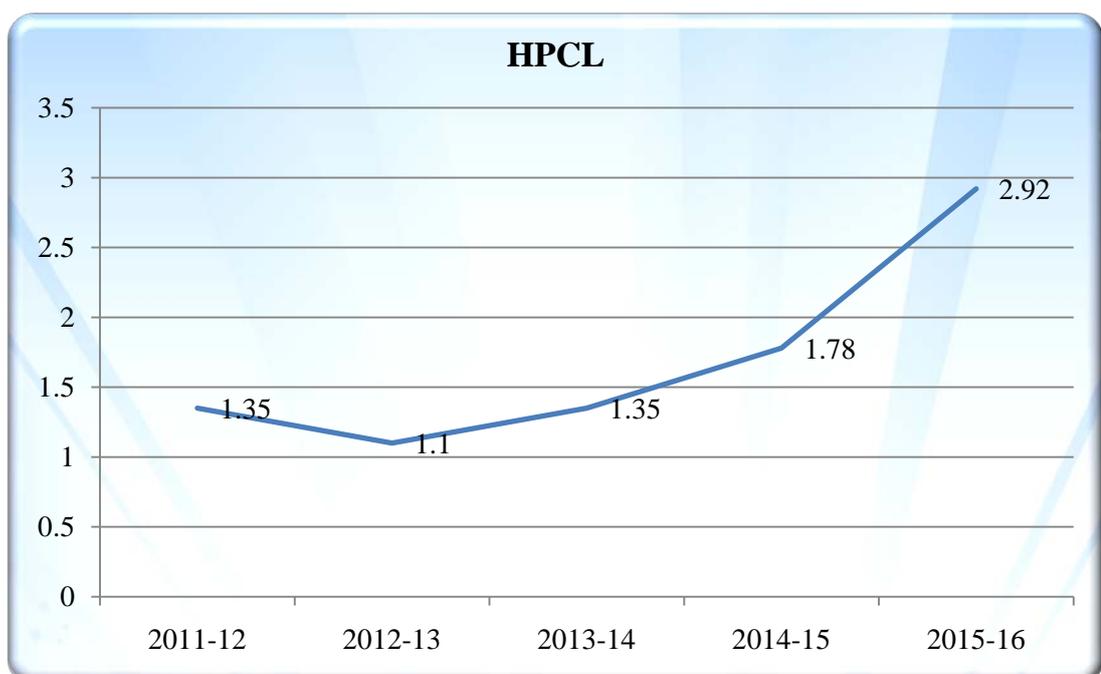


Figure 4.3: Gross Profit ratio of HPCL from year 2011-12 to 2015-16

As regards to Castrol India limited, the gross profit ratio is 19.09 in the year 2011 to 28.48 in the year 2015-16. The company has shown an increasing trend in the gross profit ratio in the last five years. The average gross profit ratio of the company is 22.84 which is very much favourable and shows that the company has good efficiency in producing goods.

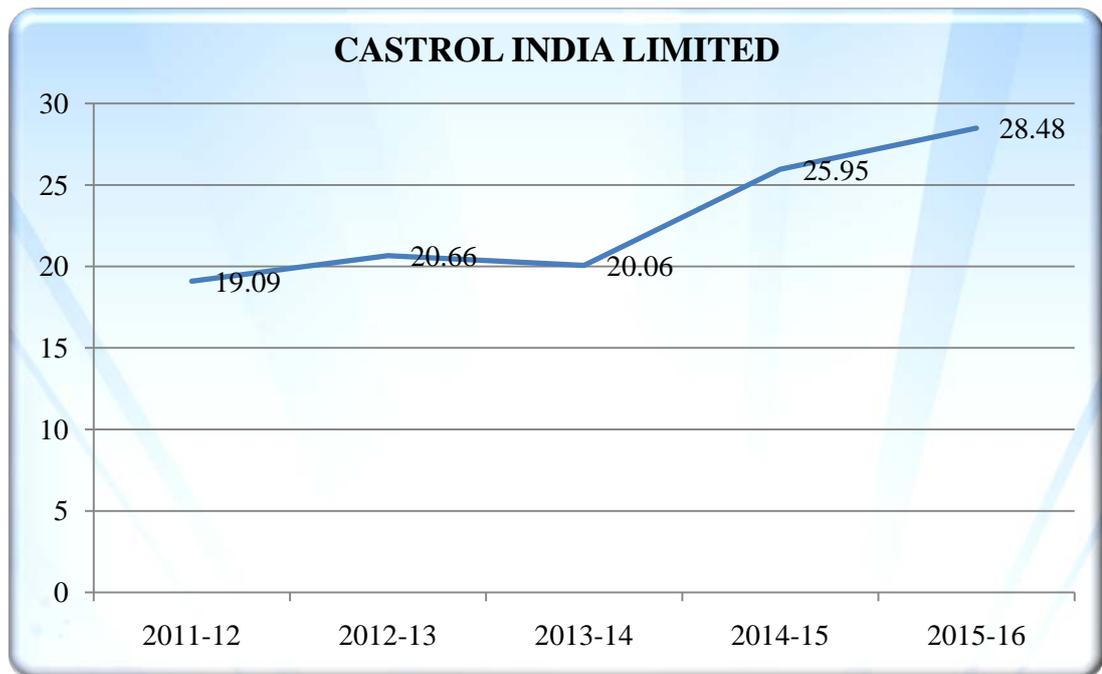


Figure 4.4: Gross Profit ratio of Castrol India Limited from year 2011-12 to 2015-16

As regards to Apar Industries Limited, the gross profit ratio ranged from 5.06 in the year 2011-12 to 6.34 in the year 2015-16. It showed a fluctuating trend till the year 2014-15 but it showed an increasing trend in the year 2015-16. The average gross profit ratio of the company in the last five years is 5.40 which is satisfactory as compared to Indian oil and Hindustan petroleum.

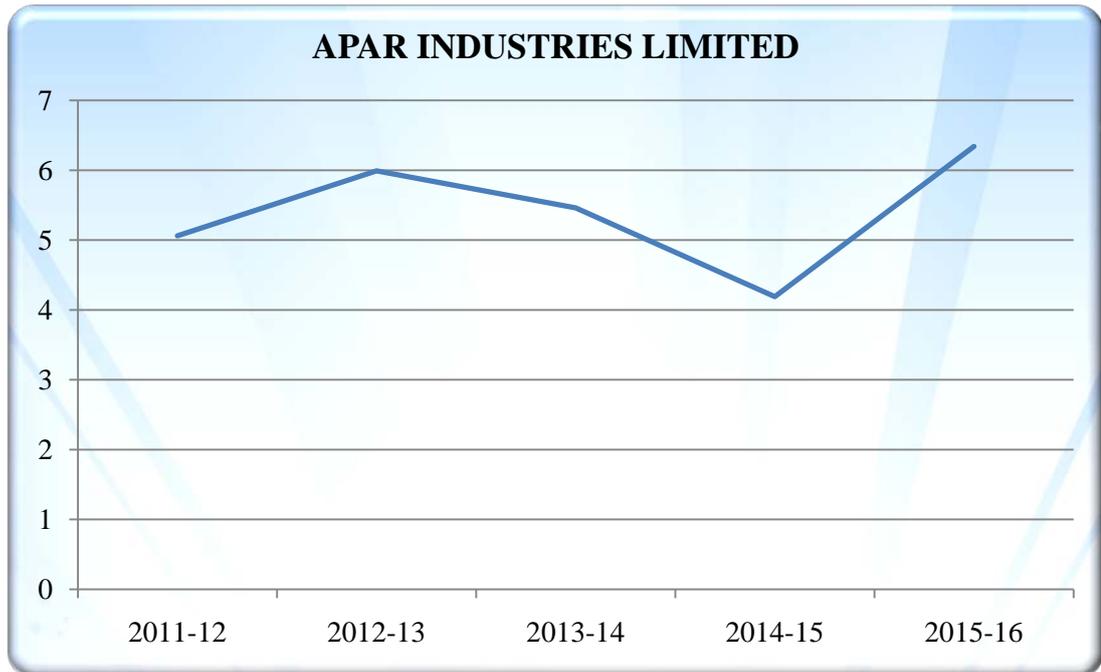


Figure 4.5: Gross Profit ratio of Apar Industries Limited from year 2011-12 to 2015-16

As regards to Gross Profit Ratio, Castrol India Limited showed a good profitability followed by Apar Industries, Indian Oil and Hindustan Petroleum respectively.

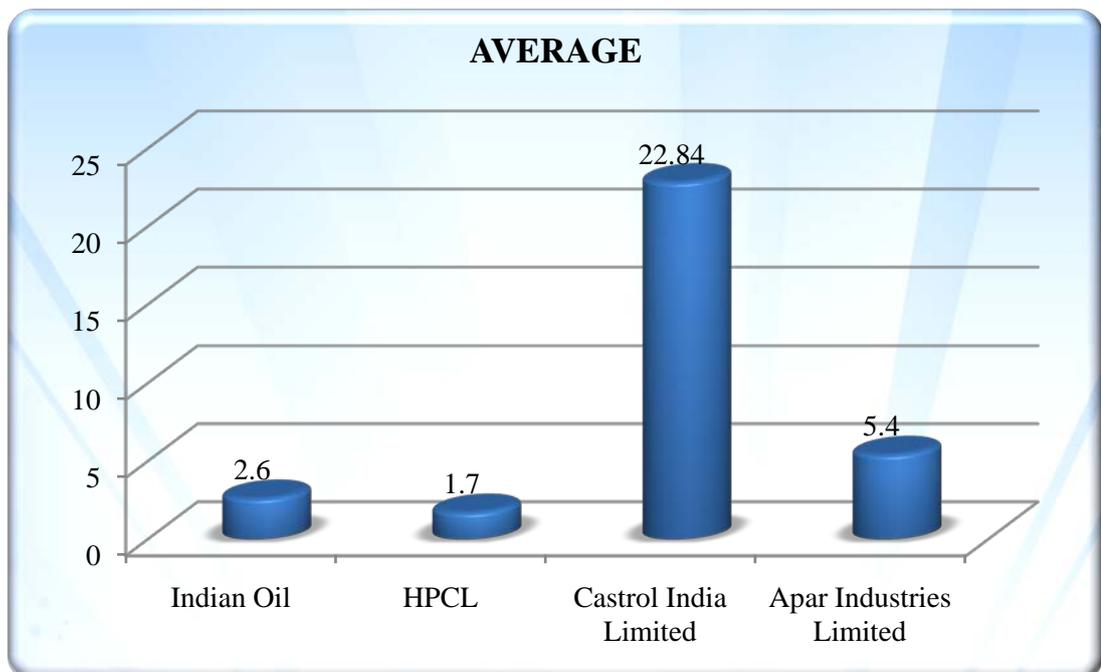


Figure 4.6: Average Gross Profit Ratio

B) NET PROFIT RATIO:

The formula for calculating net profit ratio is:

$$\frac{\text{Net Profit}}{\text{Net Sales}} \times 100$$

Indications:

- Net Sales is the difference between Gross sales and sales returns.
- Net profit is the difference between Net sales and all the indirect expenses like administrative expenses, selling expenses, distribution expenses etc.

Net Profit ratio basically tells about the availability of sales to the owners after meeting all the operating and non operating expenses or the normal and abnormal costs. Higher the net profit ratio indicates higher profitability of the business and lower net profit ratio indicates lower profitability of the business.

A higher net profit ratio is the indicator of good efficiency of the organisation.

Table 4.2 below indicates the ratio of net profit to sales of the selected oil firms under the study and the taking all the companies of the study together, during the period under review.

Table 4.2: Net Profit Ratio of lubricant oil companies (in%)

	2011-12	2012-13	2013-14	2014-15	2015-16	Average
Indian oil	.99	1.11	1.48	1.20	2.96	1.548
HPCL	.51	.43	.77	1.32	2.15	1.036
Castrol India Ltd	14.33	15.99	13.98	18.65	20.02	16.594
Apar Industries Ltd	1.71	2.25	1.53	.95	3.13	1.914

Table 4.2 shows the net profits in relative terms as percent of net sales. In Indian oil, net profit ratio ranged from .99 in 2011-12 to 2.96 in 2015-16. It showed an increasing trend in 2012-13 as the net profit ratio increased to 1.11. But later it

again showed an increasing trend in the year 2013-14 and the net profit reached to 1.48. The net profit ratio in the year 2014-15 was quite unsatisfactory which is 1.20 but in 2015-16 it increased to 2.96. The average net profit ratio of this company in the last five years is 1.54. The overall net profit ratio in the last five years was quite satisfactory.

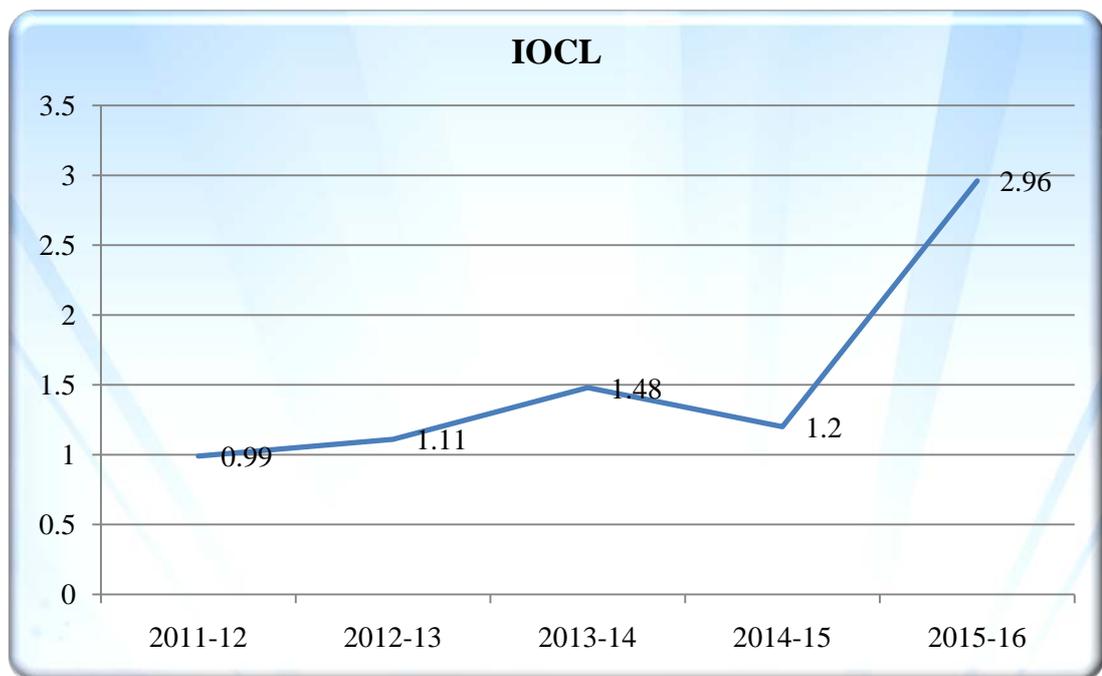


Figure. 4.7: Net Profit ratio of IOCL from year 2011-12 to 2015-16

In Hindustan Petroleum Corporation Ltd, the net profit ratio ranged from .51 in the year 2011-12 to 2.15 in the year 2015-16. It showed an increasing trend, this ratio was satisfactory in the last two years. In this company the net profit increased to 2.15 in 2014-15. The overall net profit ratio of last five years on an average is quite unsatisfactory.

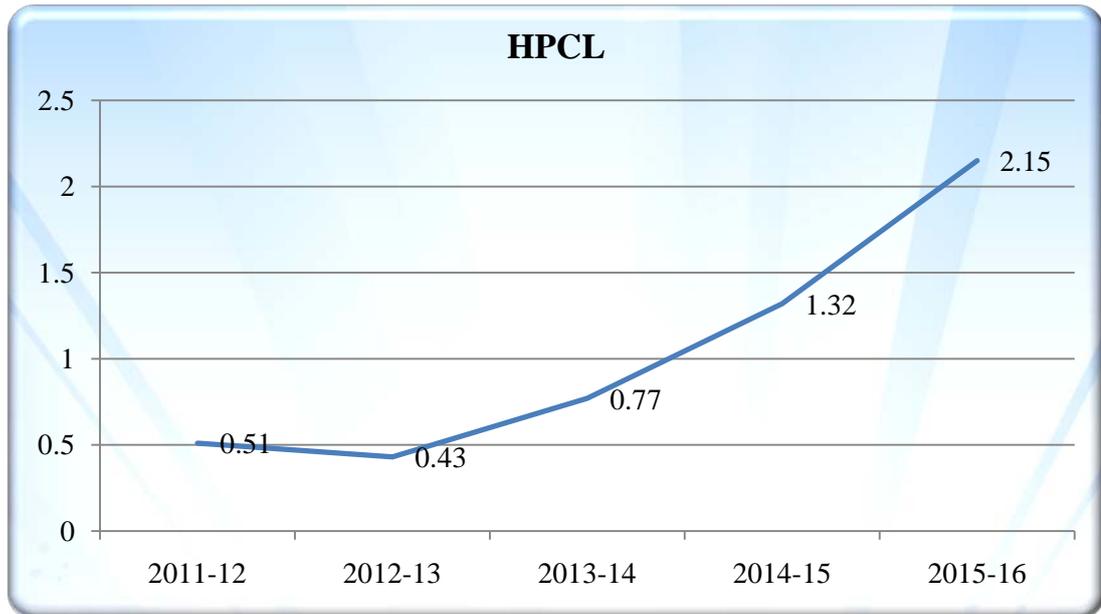


Figure 4.8: Gross Profit ratio of HPCL from year 2011-12 to 2015-16

Now coming to the private sector lubricating oil companies, Castrol India Ltd showed a net profit which ranged from 14.33 in the year 2011-12 to 20.02 in the year 2015-16. But later in the year 2013-14 it showed a decreasing trend of 13.98 percent but again it showed an increasing trend of 18.65 percent in 2014-15. The average net profit in the last five years is 16.59 which is very much satisfactory.

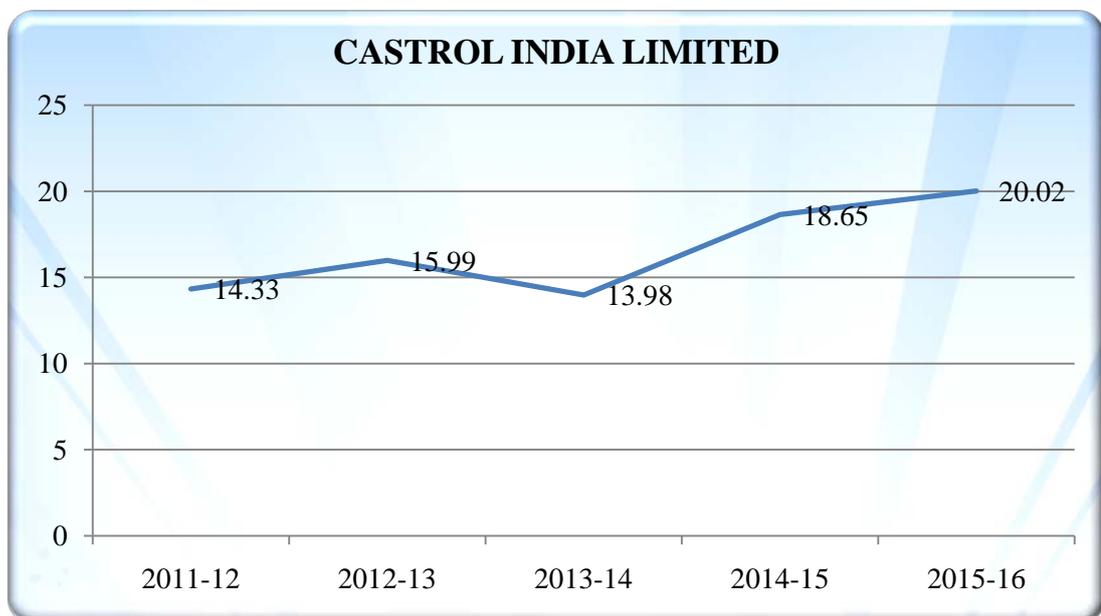


Figure 4.9: Gross Profit ratio of Castrol India Limited from year 2011-12 to 2015-16

In Apar Industries, the net profit ranged from 1.71 percent in the year 2011-12 to 3.13 percent in the year 2015-16. The net profit increased to 2.25 percent in the year 2012-13. But later on it showed a decreasing trend as net profit decreased in the last two years as 1.53 percent in the year 2013-14, 0.95 in the year 2014-15. The overall Net profit ratio of Apar industries is quite satisfactory.

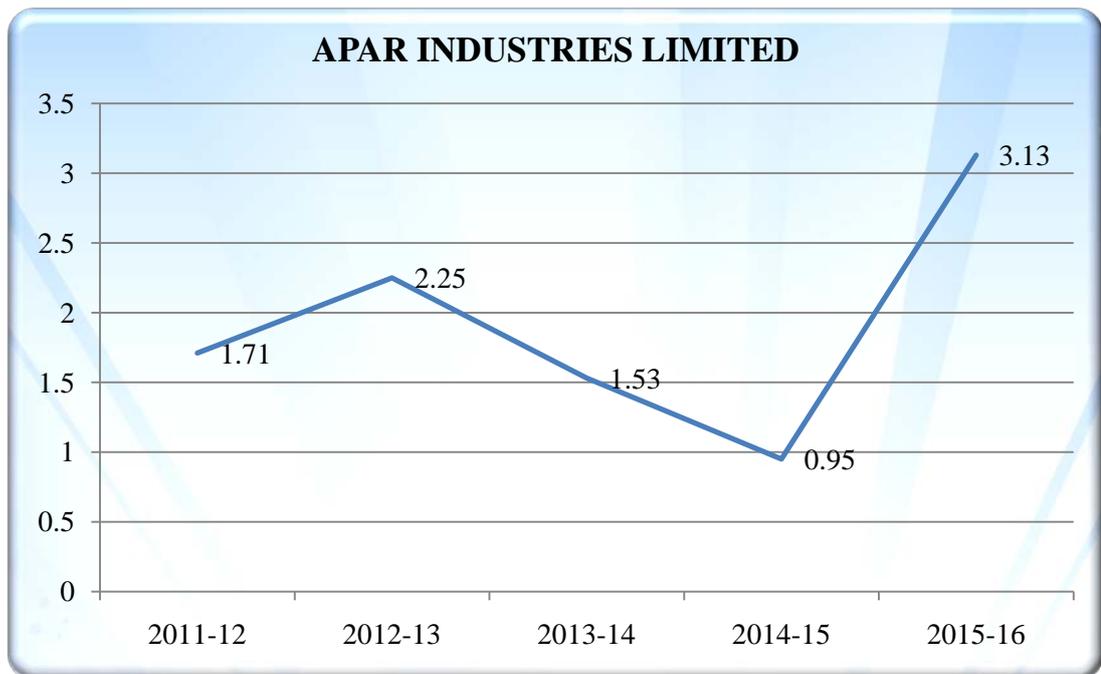


Figure 4.10: Net Profit ratio of Apar Industries Limited from year 2011-12 to 2015-16

As regards to Net Profit Ratio, Castrol India Limited showed a good profitability followed by Apar Industries, Indian Oil and Hindustan Petroleum respectively.

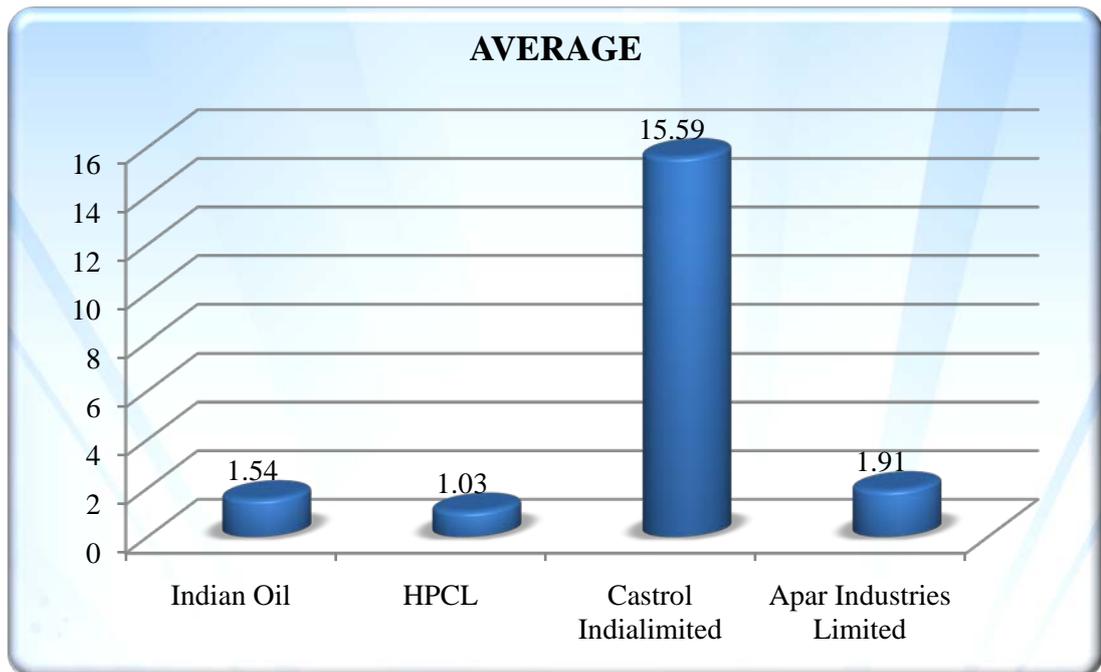


Figure 4.11: Average Net Profit Ratios

C) OPERATING PROFIT RATIO:

Operating profit ratio is the ratio which measures the relationships between operating profit and net sales. This ratio is usually expressed in terms of percentage. Operating ratio matches the cost of goods sold plus other operating expenses on the one hand, with net sales, on the other.

The operating expenses consist of the following:

- a) Selling and distribution expenses, like salaries of salesmen, advertising and travelling expenses.
- b) Administrative expenses, like rent, insurance, salaries of office clerks, directors fees, legal expenses etc. in the form of formula it can be expressed as follows:

$$\text{Operating Profit Ratio} = \frac{\text{Operating Profit}}{\text{Net Sales}} \times 100$$

Where, operating profit = Net Profit + Non- Operating Expenses - Non Operating Incomes

This ratio shows the percentage of net sales that is absorbed by the cost of goods sold and operating expenses. Naturally, the higher the operating ratio, the less favourable it is, because it would leave a smaller margin to meet interest, dividends

and other corporate needs. In general, for manufacturing concerns, the operating ratio is expected to touch a percentage of 75 to 85 percent.

Significance: This ratio analyses the operating performance of the business in a better way. Higher the operating profit ratio, better is the operational profitability of the business.

Table 4.3: Operating profit ratio of lubricant oil companies (in%)

	2011-12	2012-13	2013-14	2014-15	2015-16	Average
Indian oil	4.62	3.07	3.31	2.32	5.72	9.33
HPCL	2.31	2.06	2.34	2.74	4.40	2.77
Castrol India Ltd	19.94	21.62	21.12	27.13	29.81	23.92
Apar Industries Ltd	5.68	6.51	6.06	4.81	7.09	6.03

It is evident from the above table that during the years 2011-12 to 2015-16, the ratio of operating profit to operating assets in Indian Oil under study registered a decreasing trend in earlier years, but it had showed an increasing trend in later years. This ratio which was 4.62 percent in 2011-12 decreased to 2.32 percent in 2015-16. During later years the ratio improved significantly and still it was much better than that of the average of 9.33 percent.

On the basis of the above, it can be inferred that the ratio had shown an increasing trend which indicates high profitability in Indian Oil under study.

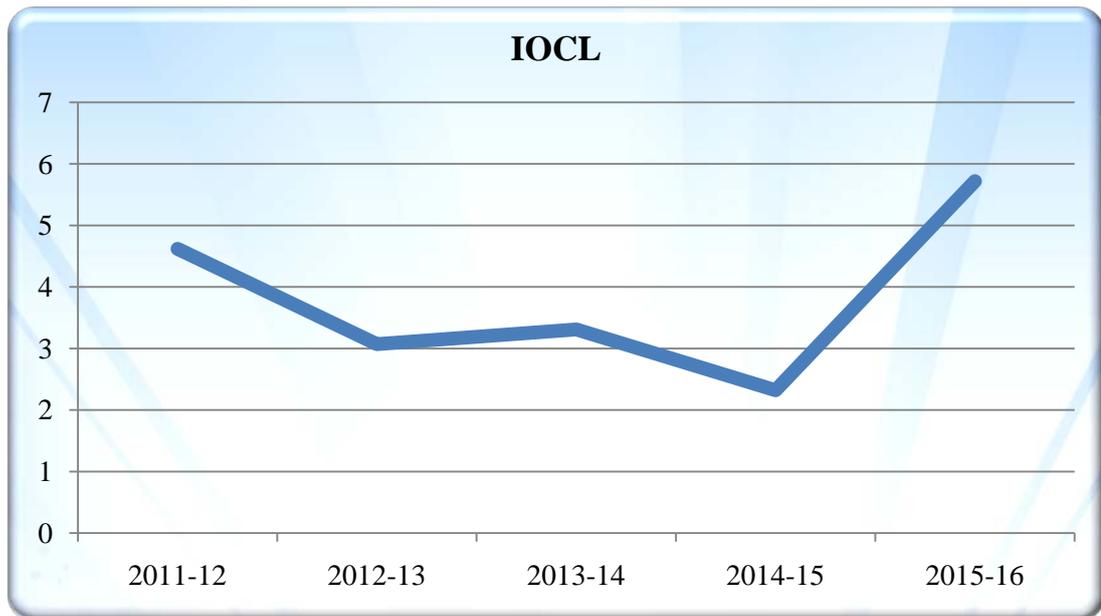


Figure. 4.12: Operating Profit ratio of IOCL from year 2011-12 to 2015-16

In Hindustan Petroleum, the ratio varied from 2.31 percent in 2011-12 to 4.40 in 2015-16. The average ratio in this company was lower than that of Indian Oil during most of the years. On the basis of the average ratio it was the lowest. On the basis of the above table, it can be inferred that the ratio had marked a falling trend in earlier years which indicates low profitability, but on the result of the year 2015-16 a good future can be expected.

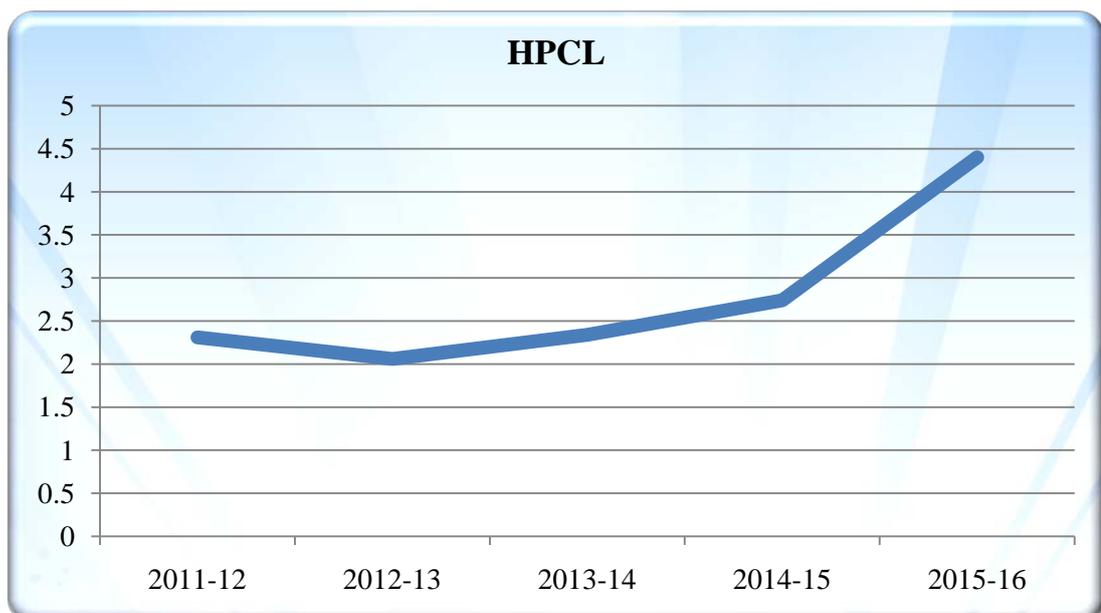


Figure 4.13: Operating Profit ratio of HPCL from year 2011-12 to 2015-16

In Castrol India Limited as Table 4.3 Shows the ratio of operating profit to operating assets continuously increased during the study period. The ratio varied from 19.94 percent in 2011-12 to 29.81 percent in 2015-16. The ratio in this company was higher than that of Indian Oil and Hindustan petroleum under the study. On the basis of average ratio which is 23.92 percent, it was the highest. On the whole, it can be inferred that the ratio had shown an increasing trend which indicates high profitability in the company. On the whole, the profitability of the company was the best amongst under study.

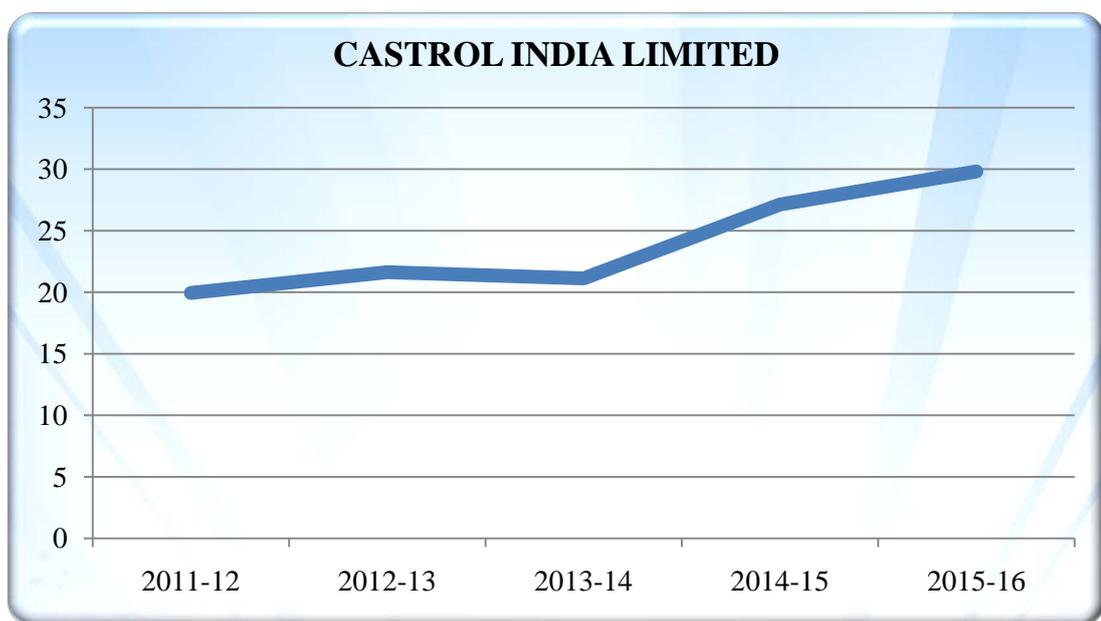


Figure 4.14: Operating Profit Ratio of Castrol India Limited from year 2011-12 to 2015-16

In Apar industries, the table shows that the ratio of operating profit to operating assets was towards a decline in 2014-15, but this decline trend was checked up during 2015-16 which is 29.81. This ratio which was 5.68 in 2011-12 decreased to 4.81 in 2014-15. During later years the ratio improved in this company was lower than Castrol India Limited.

On the whole, it can be inferred that the ratio had a falling trend in earlier years which indicates low profitability in the company. But on the basis of the result of the later years, a good future can be expected.

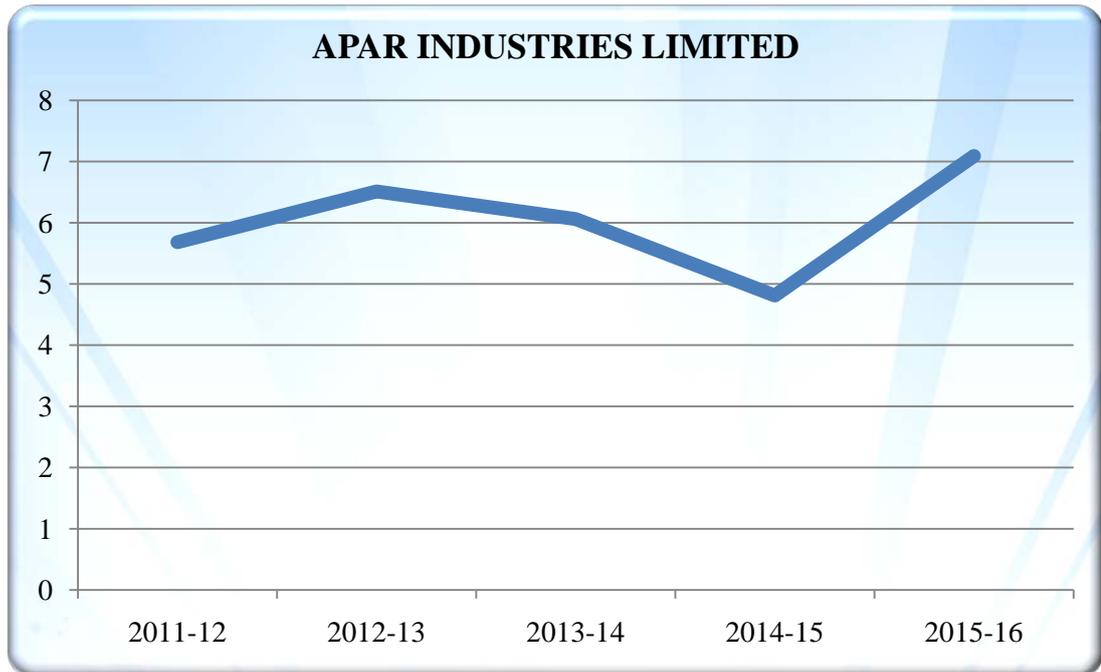


Figure 4.15: Operating Profit ratio of Apar Industries Limited from year 2011-12 to 2015-16

As regards to Operating Profit Ratio, Castrol India Limited showed a good profitability followed by, Indian Oil, Apar Industries and Hindustan Petroleum respectively.

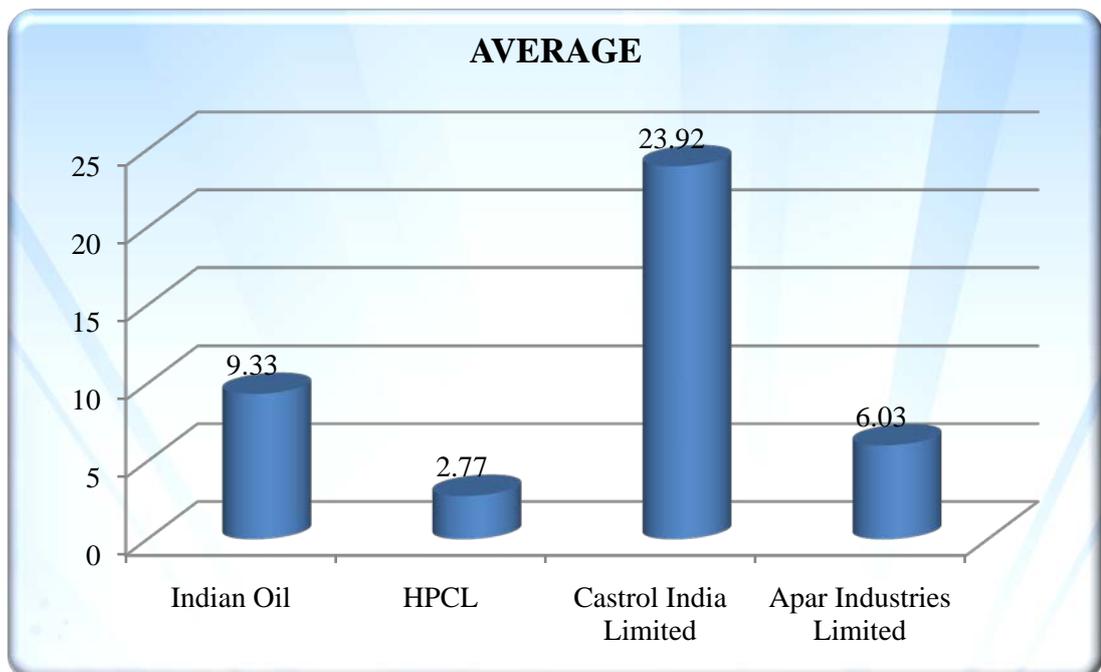


Figure 4.16: Average operating Profit ratios

D) EXPENSES AS COMPOSITION OF TOTAL SALES

It shows the ratio which measures the relationship between particular expense and net sales. This ratio is usually expressed in percentage. Lower the ratio, better it is.

Its formula is expressed as:

$$\frac{\text{Expenses}}{\text{Net Sales}} \times 100$$

Table 4.4: Expenses as composition of sales ratio of lubricant oil companies (in%)

	2011-12	2012-13	2013-14	2014-15	2015-16	Average
Indian oil	4.97	4.15	4.56	3.65	3.97	4.26
HPCL	4.32	3.10	1.89	2.57	1.00	2.57
Castrol India Ltd	.67	.51	.41	.47	.42	.49
Apar Industries Ltd	33.43	30.35	31.75	34.62	33.43	32.71



Figure 4.17: Expenses as composition of sales ratio of IOCL from year 2011-12 to 2015-16

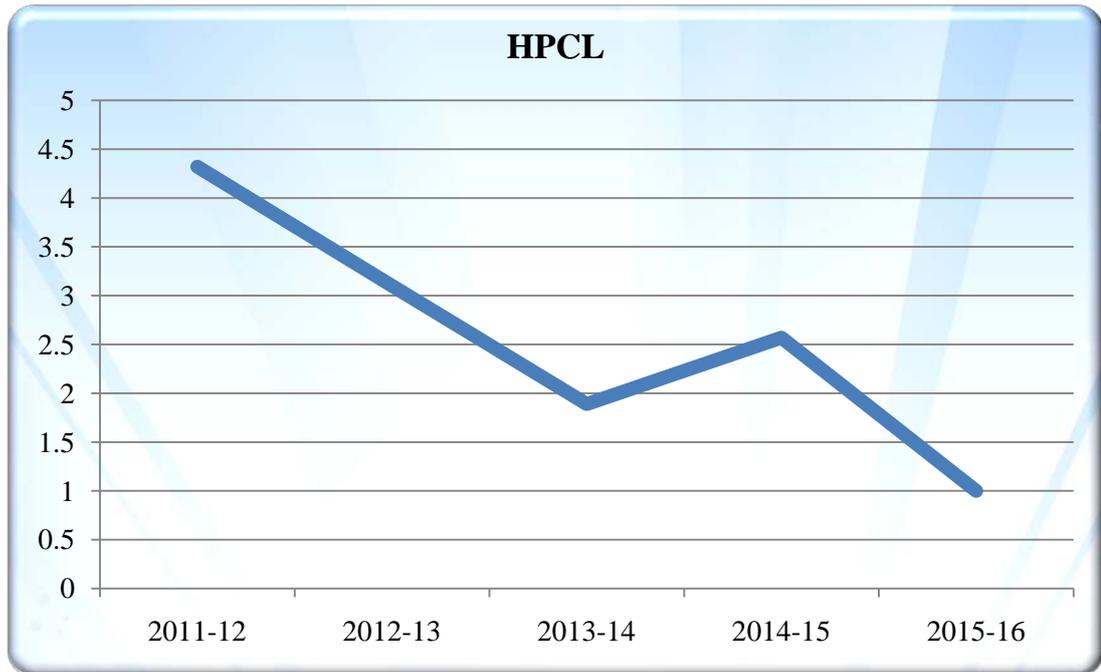


Figure 4.18: Composition of Sales ratio of HPCL from year 2011-12 to 2015-16

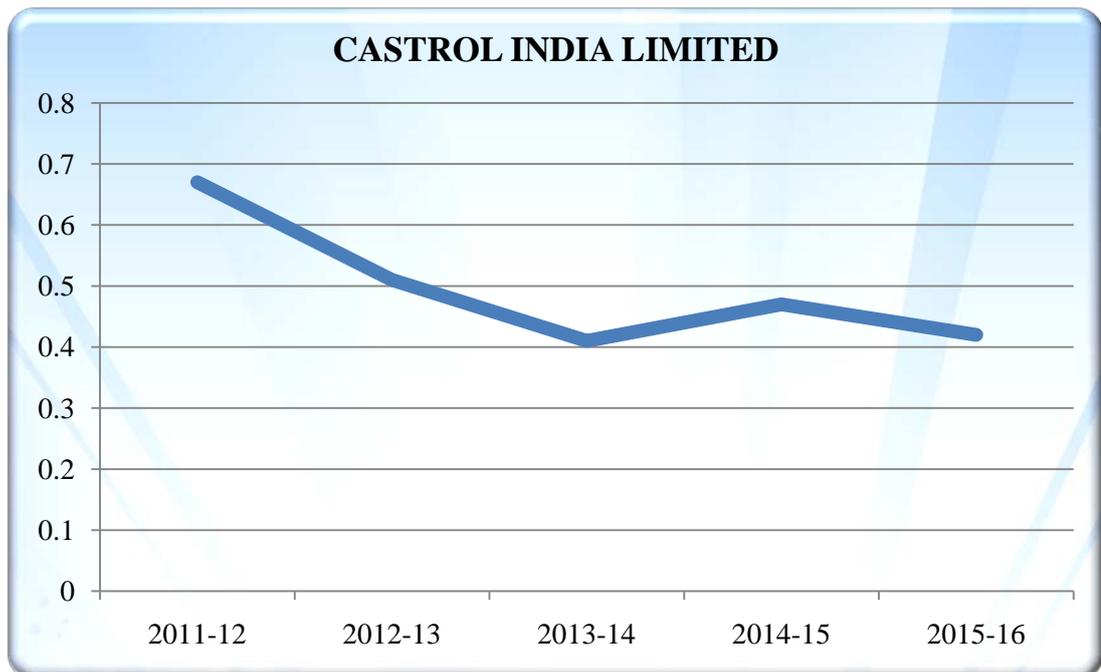


Figure 4.19: Expenses as composition of sales ratio of Castrol India Limited from year 2011-12 to 2015-16

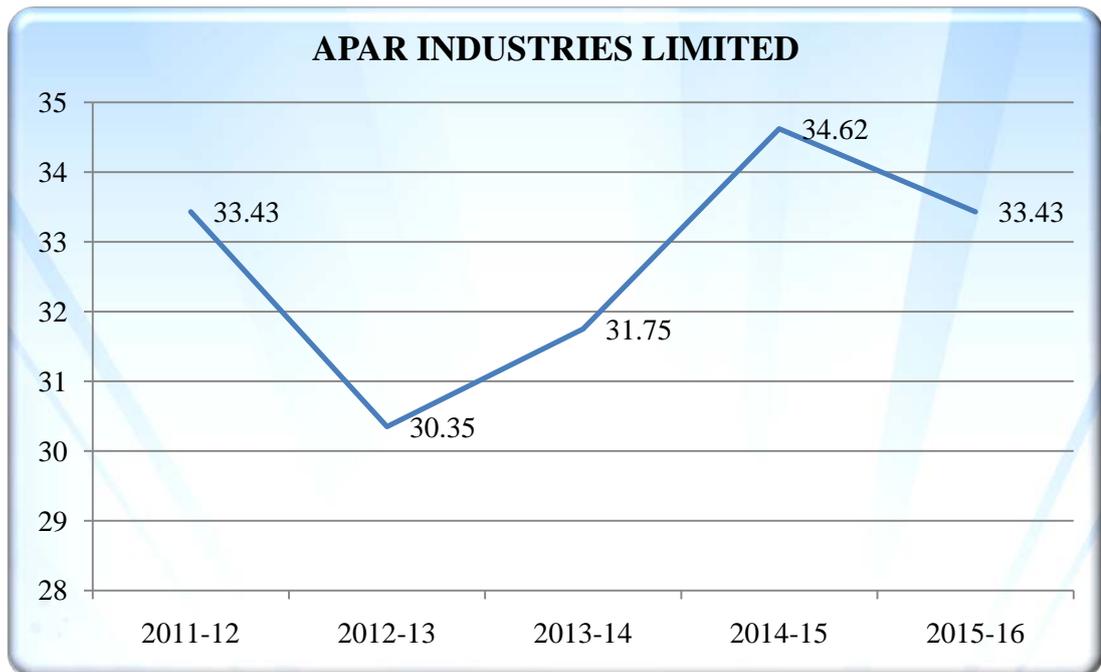


Figure 4.20: Expenses as composition of sales ratio of Apar Industries Limited from year 2011-12 to 2015-16

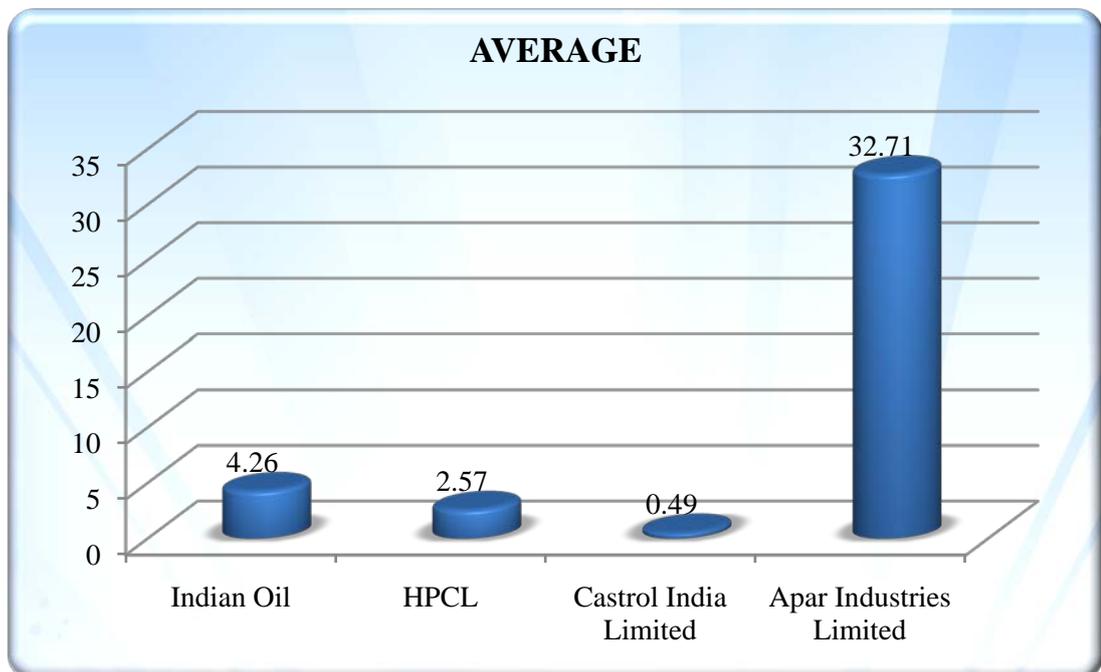


Figure 4.21: Average Expenses as Composition of sales ratio

As regards to expenses as composition to sales Indian Oil ranged from 4.97 percent in 2011-12 to 3.97 percent in 2015-16 where as Hindustan Petroleum Corporation Limited ranged from 4.32 percent in 2011-12 to 1.00 percent in 2015-

16. Coming to private sector, Castrol India limited ranged from. 67 percent in 2011-12 to. 42 percent in 2015-16 where as Apar industries ranged from 28.53 percent in 2011-12 to 33.43 percent in 2015-16. Apar industries showed in overall increasing trend in this ratio which is not beneficial for the company in the future. The average percent of Apar industries is 31.73 percent which is highest as compared to other three companies under the study.

As regard to expenses, Apar industries showed higher expenditure followed by Indian Oil, Hindustan Petroleum Limited and Castrol India Limited respectively.

4.4 PROFITABILITY IN RELATION TO CAPITAL EMPLOYED

- a) Return on capital employed
 - b) Return on net worth
 - c) Earning per equity share
- a) “In day –to- day use, the term “capital employed” is used to indicate the total investment in the firm whether owned or borrowed” but the capital employed in a business may be defined in a number of ways and the two most widely accepted definitions are gross capital employed and net capital employed.

‘Gross capital employed’ usually comprises the total assets used in the business while ‘net capital employed’ consists of total assets of the business less its current liabilities.

Gross Capital employed

On the ground that the current liabilities are also a form of capital and all funds must be effectively employed, the gross capital employed concept may be favoured by the analysis.

Thus:

Gross capital employed = Fixed Assets + Current Assets

It may be noticed that the total of fixed assets and current does not necessarily represent total assets or total liabilities of a company.

Net Capital Employed : On the ground that either only short term creditors or only short-term debtors should be included in the capital employed, the net capital employed concept may be favoured.

Net capital employed = Gross Capital Employed- Current Liabilities

Or

Fixed Assets+ Current Assets – Current Liabilities

Or

Fixed Assets + Net Working Capital.

RETURN ON CAPITAL EMPLOYED

Table 4.5: Return on capital employed of lubricant oil companies from year 2011-12 to 2015-16

	2011-12	2012-13	2013-14	2014-15	2015-16	Average
Indian oil	13.08	8.64	9.11	8.30	14.98	10.82
HPCL	8.48	7.31	8.54	14.68	19.41	11.68
Castrol India Ltd	102.91	98.56	146.68	165.35	175.77	137.85
Apar Industries Ltd	12.21	18.20	18.01	19.54	29.51	19.49

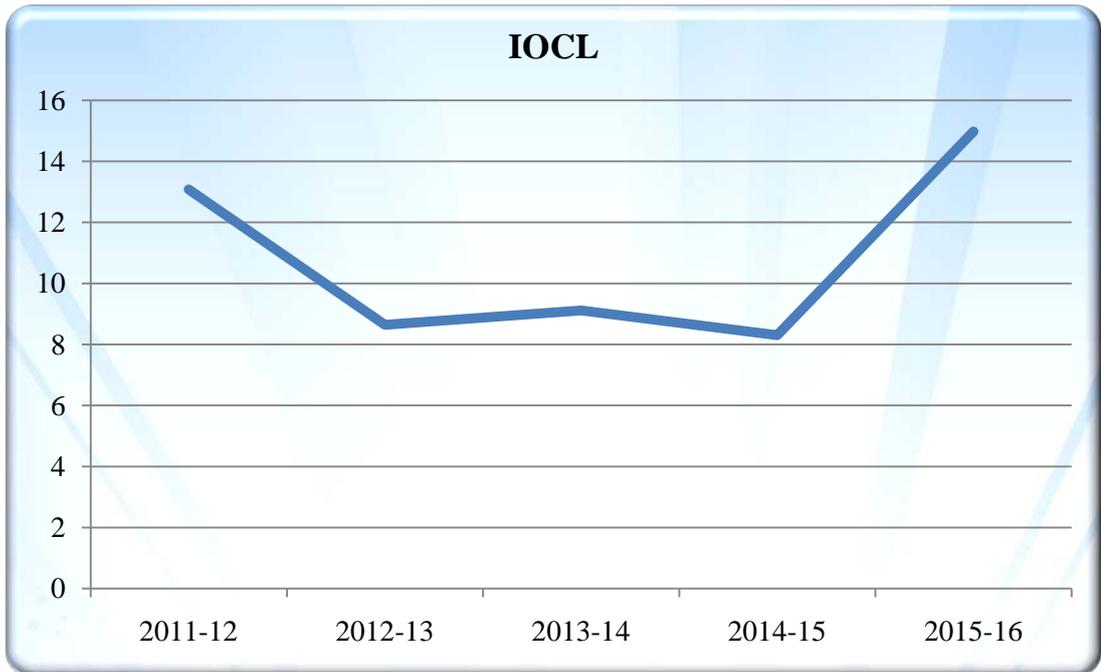


Figure 4.22: Return on capital employed of IOCL from year 2011-12 to 2015-16

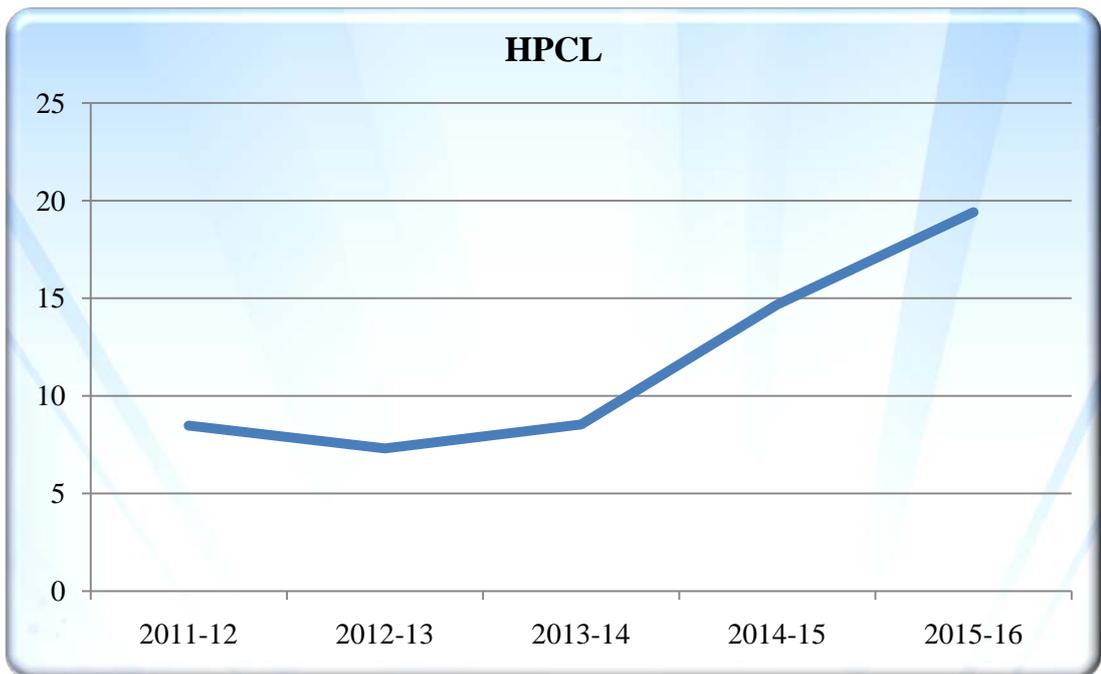


Figure 4.23: Return on capital employed of HPCL from year 2011-12 to 2015-16

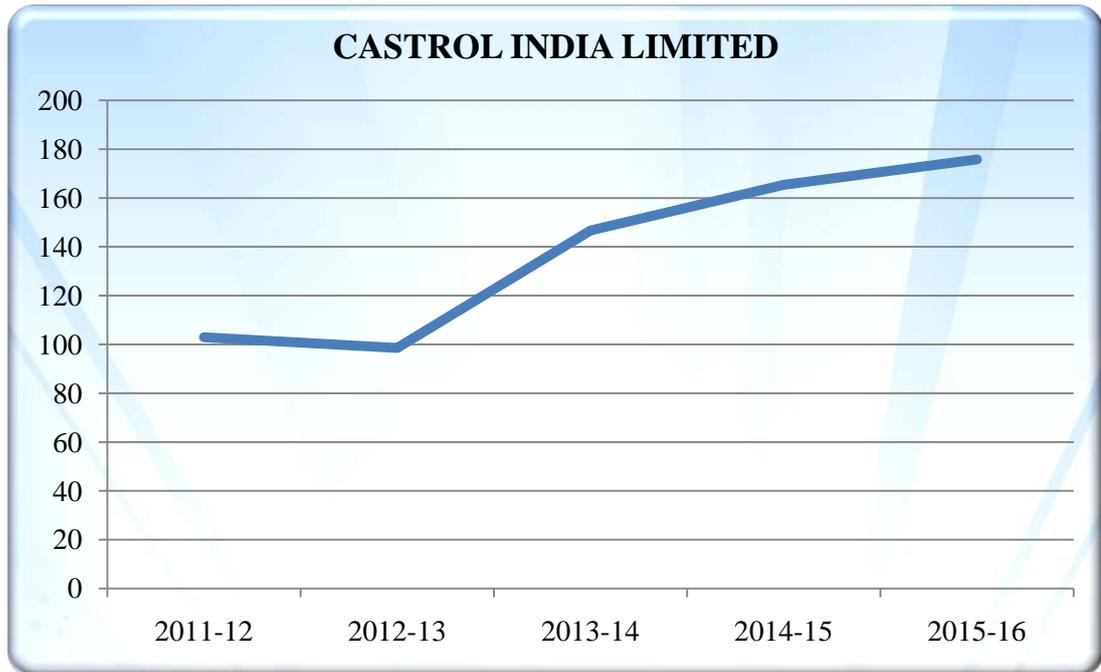


Figure 4.24: Return on capital employed of Castrol India Limited from year 2011-12 to 2015-16

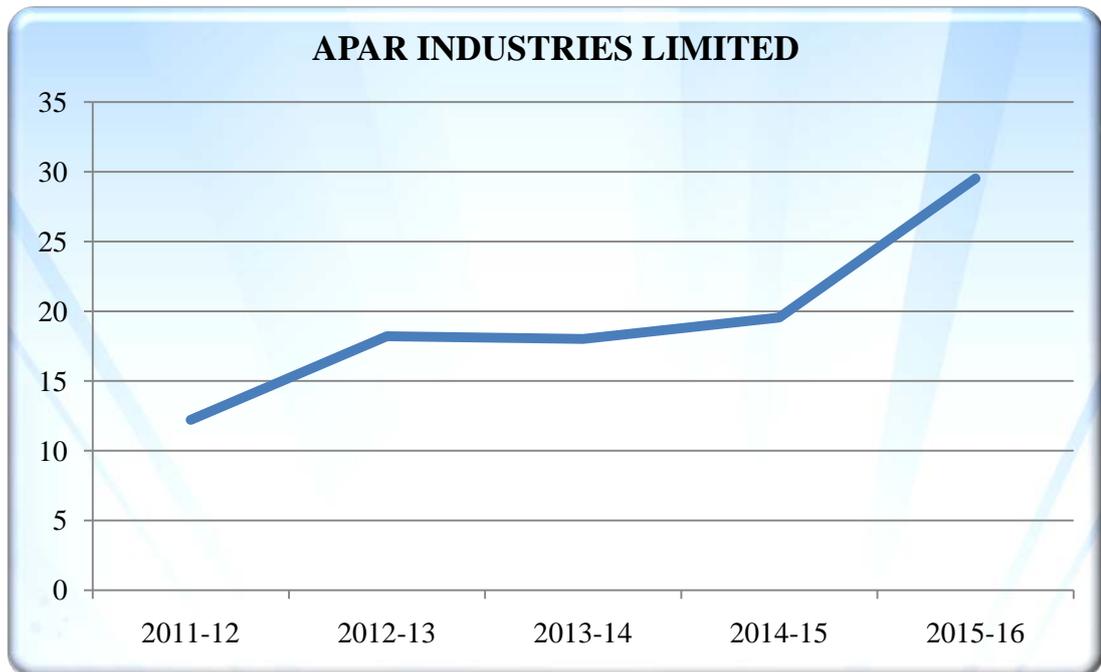


Figure 4.25: Return on capital employed of Apar Industries Limited from year 2011-12 to 2015-16

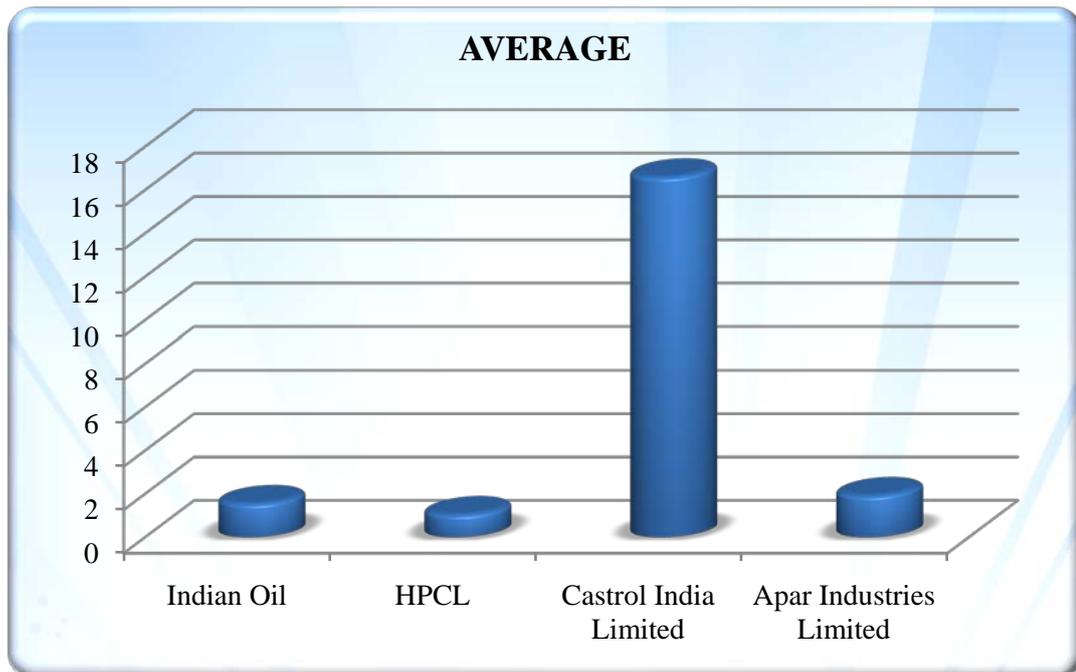


Figure 4.26: average capital employed of Lubricant oil companies

As regards to return on capital employed, Indian Oil showed a trend of 13.08 percent in 2011-12 to 14.98 percent in 2015-16. In the earlier years it showed a decreasing trend but significantly it increased to 14.98 percent in 2015-16 which is quite satisfactory. The average percentage is 10.82 percent which is lowest among other three companies.

Hindustan Petroleum limited ranged from 8.48 percent in 2011-12 to 19.41 percent in 2015-16. It showed a decreasing trend in 2012-13 which is 7.31 percent. But its return on capital employed increased in later years due to which good future can be expected. The average percentage of this company is 11.68 percent which is less than private sector companies' i. e Castrol India Limited and Apar Industries Limited.

Now coming to private sector companies, Castrol India limited ranged from 102.91 percent in 2011-12 to 175.77 percent in 2015-16. The overall percentage change in this company is increasing at a very good rate. The average return on capital employed of this company is 137.85 which is best among all the other companies under the study.

As compared to return on capital employed, Apar industries ranged from 12.21 percent in 2011-12 to 29.51 percent in 2015-16. Among the last five years taken under the study, Apar industries showed a fluctuating trend but in the last few years it showed an increasing trend which shows high profitability in the company.

b) Return on Net Worth

The return on net worth (or return on shareholder's fund) is net profit after taxes divided by the total of net worth (i. e. preference shareholder's and equity shareholder's funds).

$$\text{Return on Net worth} = \frac{\text{Net Profit after taxes and Interest}}{\text{Net Worth}}$$

The net worth includes equity share capital, preferential share capital, share premium, reserves and surplus less accumulated losses, if any. Net worth can also be found by subtracting total liabilities from total assets.

This ratio indicates how well the company has used the resources of the owner. The earning of a satisfactory return is the most desirable objective of a business, and this ratio indicates the extent to which this objective has been achieved successfully.

Table 4.6: Return on net worth of lubricant oil companies from year 2011-12 to 2015-16

	2011-12	2012-13	2013-14	2014-15	2015-16	Average
Indian oil	6.83	8.19	10.64	7.76	14.06	9.49
HPCL	6.94	6.59	11.54	17.05	21.04	12.63
Castrol India Ltd	68.91	67.68	95.52	106.88	113.28	90.45
Apar Industries Ltd	12.66	18.23	11.33	7.51	20.53	14.05

The higher the return on Net worth, the better it is for the company as it shows that the objectives of the company have been achieved successfully. Comparing the averages of the return on net worth of the companies in the last five years taken under the study, Castrol India limited showed a higher increasing trend of 68.91 percent in 2011-12 to 113.28 percent in 2015-16 with an average of 90.45 percent followed by Apar Industries with 14.05 percent, Hindustan Petroleum Corporation limited with 12.63 percent and Indian Oil with 9.49 percent respectively.

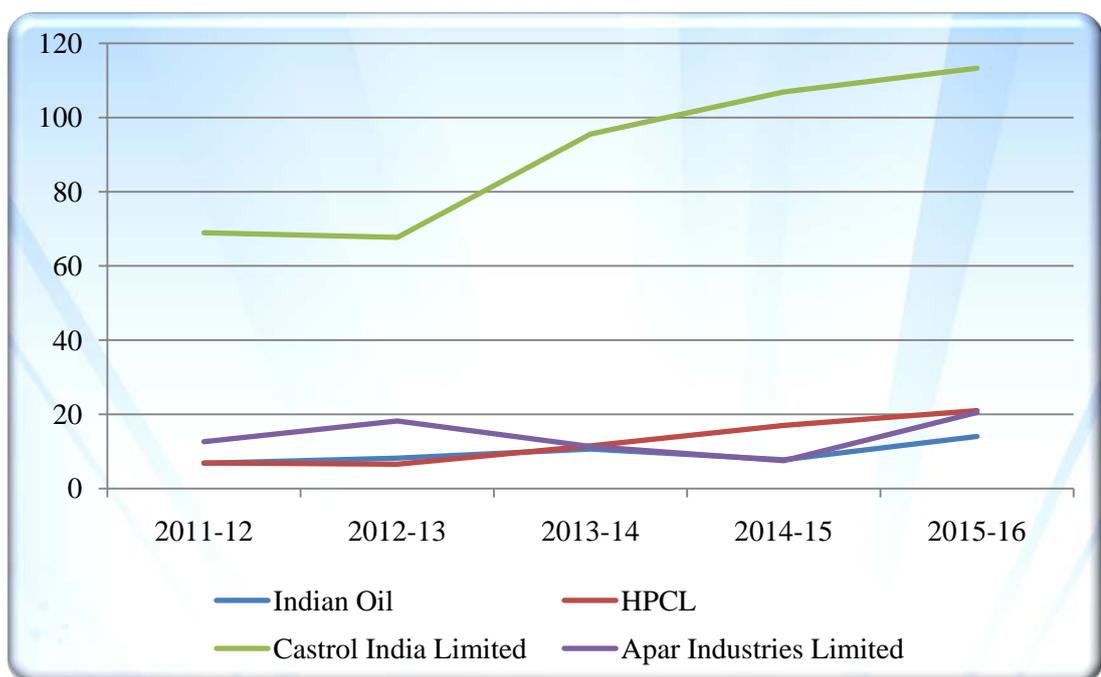


Figure 4.27: Net worth of Lubricant Oil companies from year 2011-12 to 2015-16

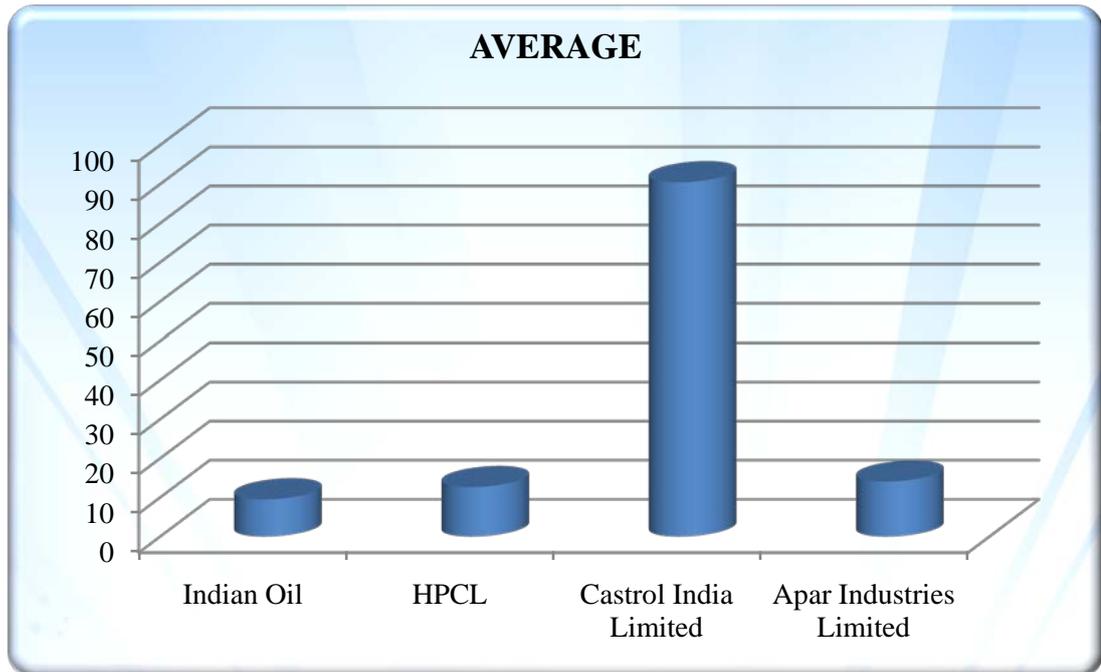


Figure 4.28: Average net worth of Lubricant oil companies from year 2011-12 to 2015-16

c) **Earning Per Share (EPS):** Another method of measuring profitability is to express the earning of the company per share. It measures the profit available to the equity shareholders on per share basis, i. e the amount that they can get on every share held. Earning per share is calculated with the help of the following formula:

$$\text{Earning Per Share} = \frac{\text{Net Profit after taxes \& Preference Dividend}}{\text{Number of Equity Shareholders}}$$

The earning per share calculations made for one year indicates whether or not the firm's earning power on per share basis has changed over that period. The more the earning per share, the better are the performance and prospects of the company.

Table 4.7: Earnings per share of lubricant oil companies from year 2011-12 to 2015-16

	2011-12	2012-13	2013-14	2014-15	2015-16	Average
Indian oil	16.29	20.61	28.91	21.72	42.83	26.07
HPCL	26.92	26.72	51.20	80.72	114.07	59.92
Castrol India Ltd	9.05	10.28	9.60	12.44	13.65	11.00
Apar Industries Ltd	16.49	26.56	17.88	12.43	40.78	22.82

As regards to Earning Per Share, Indian Oil showed an increasing trend in the last five years which ranged from 16.29 percent in 2011-12 to 42.83 percent in 2015-16. Though the company had a declining trend in 2014-15 but it picked up in 2015-16 to 42.83 percent. The over all earning per share in the last five years is good which shows the better performance and prospects of the company.

Hindustan Petroleum Corporation limited had an increasing trend of earning per share which ranged from 26.92 percent in 2011-12 to 114.07 percent in 2015-16. The company had a very good earning per share capacity in all the last five years taken under the study. The company had an average earning per share as 59.92 percent which is highest among the other three companies taken under the study.

In private sector Lubricant oil companies taken under the study Castrol India limited had a low earning per share in the last five years as compared to other three lubricant oil companies taken under the study. The company showed a range of 9.05 percent in 2011-12, 10.28 percent in 2012-13, 9.60 percent in 2013-14, 12.44 percent in 2014-15 and 13.65 percent in 2015-16 with an average of 11 percent.

The other private sector company taken in the study i. e. Apar Industry showed a high earning per share performance as compared to Castrol India limited. The company showed a fluctuating trend in all the five years taken under the study with a increasing trend of 40.78 percent in 2015-16 with an average of 22.82 percent which shows a better performance of the company.

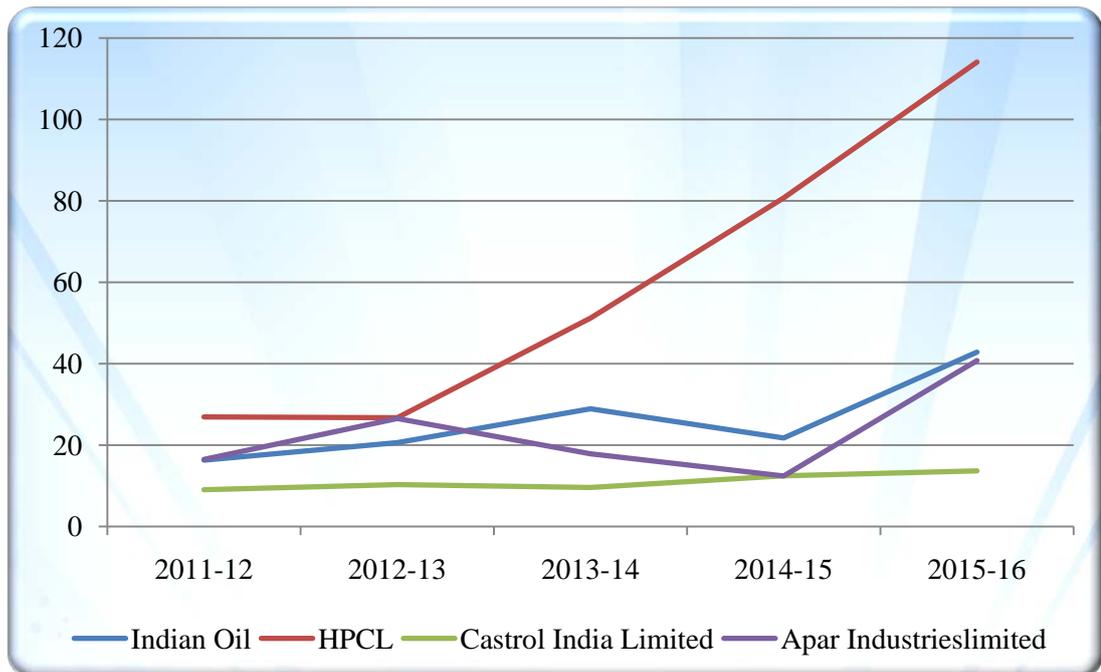


Figure 4.29: earnings per share of Lubricant Oil companies from year 2011-12 to 2015-16

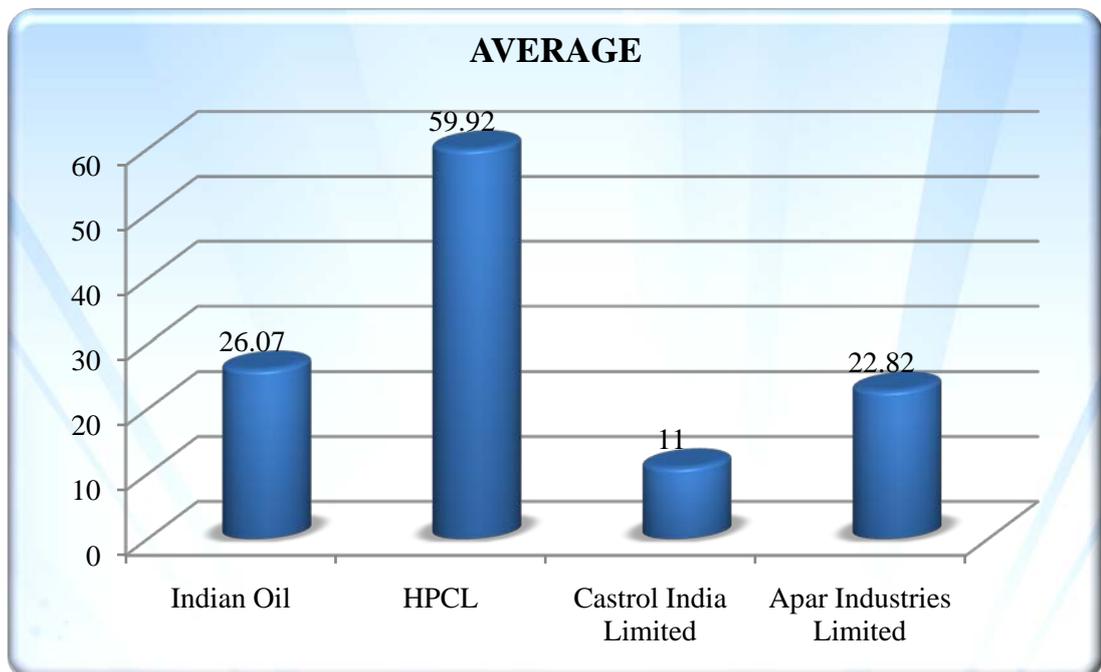


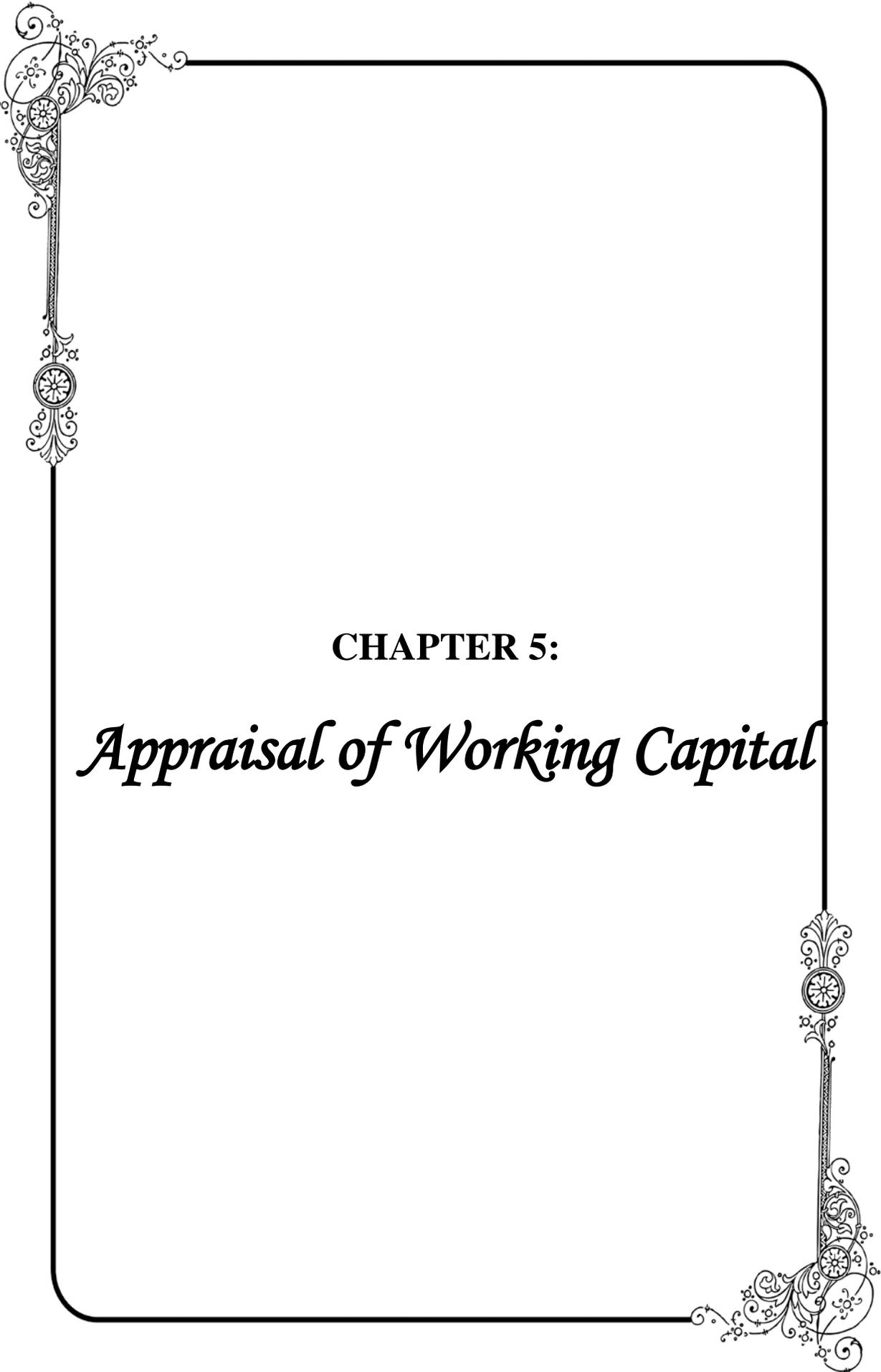
Figure 4.30: Average Earnings per share of Lubricant Oil companies from year 2011-12 to 2015-16

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CHAPTER 5:

Appraisal of Working Capital

CHAPTER-5

APPRAISAL OF WORKING CAPITAL

5.1 CONCEPT OF WORKING CAPITAL

Working capital has two views- one is based on business concept and the other is based on accounting concept.

The business concept view is the total of current assets (gross concept) (Banerjee, 2017) and the accounting concept is the excess of current assets over current liabilities (net Concept). (Banerjee, 2017)

Both these concepts of working capital have their own significance. “if the objective is to measure the size and extent to which current assets are being used,” gross concept” is useful; whereas in evaluating the liquidity position of an undertaking, ‘net concept’ becomes pertinent and preferable.” (Gupta, 2003)

The two concepts of working capital as defined above may also be known as quantitative concept(Gross) and qualitative concept (Net). It is the net concept of working capital that has been taken into the present study.

The qualitative view explains working capital as “Excess of current assets over current liabilities.” (Banerjee, 2017)

Excess of current assets over current liabilities is called “net working Capital”. The net working capital represents the amount of current assets which would remain if all the current liabilities were paid. In the words of Gitman,” Net working capital can be defined in two ways:

1. The most common definition of net working capital is the difference between current assets and current liabilities;
2. And the alternate definition of net working capital is that portion of a firm’s current assets which is financed with long term fund” (Khan & Jain, 2007)

The main elements of current assets are cash and bank balance, inventory, receivables and other quick resources like short term or temporary investment.

Current liabilities include payables, bank overdrafts, outstanding expenses and proposed dividends.

The assets which are normally retained for longer than one year, known as current assets, are acquired from the funds which may be regarded temporary or short term sources. Money used to acquire these current assets is termed as circulating, floating or working capital. “Current assets circulate in a business as like blood in the human body such the working capital plays the same role in business as the heart does in the human body. As soon as the heart gets blood, it circulates the same in the body, in the same manner, working capital funds are obtained and circulated in business operations. As and when this circulation stops, the business becomes lifeless.” (Goel, 2006) It is because of this feature that the working capital is also known as the circulating capital.

Hence, the term ‘working capital’ refers to short term funds required for financing the operating cycle of a business. About the working capital Adam Smith said that, “it is circulating capital.” (Smith, 1957) Working capital indicates that its flow is circular in nature. In the beginning the funds in a business are obtained from the issue of shares, the issue of debentures, and other long term arrangements and from operations of business. A huge part of generated funds is used to acquire fixed assets, viz. Plant and machinery, land and buildings, tools, furniture, equipment, while the remaining part of the generated funds is used for day to day operations of the business, i. e. to pay creditors for raw material purchased and to pay wages and overhead expenses for the raw materials purchased. This makes available the finished goods by sale of which either debtor is created or cash received. Apart from these funds used in payment of taxes, interests and dividends and the remaining funds are ploughed back in the business.

Operating Cycle

The duration of time needed to complete the following cycle of events, in a business enterprise is called the operating cycle:

1. Conversion of cash into raw materials.
2. Conversion of raw materials into work- in – progress

3. Conversion of work –in- progress into finished stock.
4. Conversion of finished stock into account receivables through sales.
5. Conversion of account receivables into cash.

The amount of working capital differs not only in different industries, but also from one industry to another firm in the same industry.

Working capital may be divided into two parts, permanent and temporary. Permanent working capital means the minimum level of current assets required all the time for business operations. It consists of low inventory investments in raw materials, goods in progress, finished stocks and of receivables obtained on any day of the year. Any excess over the permanent current assets is termed as temporary working capital. It fluctuates with the change in operational activity. The permanent working capital like fixed assets never leaves a business and remains gainfully employed all over the time, while temporary working capital is occasionally utilised during the year. However permanent as well as temporary working capital continuously goes on circulating and changing shapes from one form to another- cash to inventory, inventory to receivables and from receivables to cash and so on.

This cycle will continue throughout the life of a business as shown in figure.

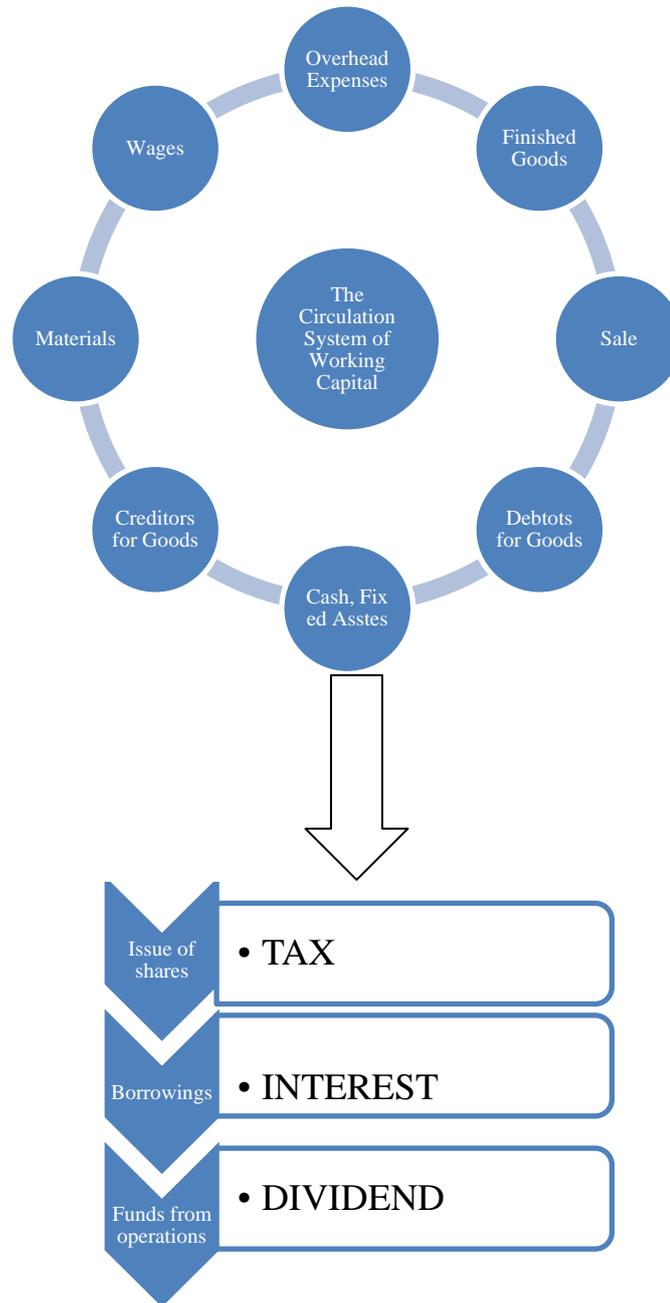


Figure 5.1: the circulation system of working capital

The concept of permanent and temporary working capital assists in determining the level of funds to be obtained from various sources of finance. It has been emphasized by financial experts that, "the permanent working capital should be financed by equity capital or other long term sources, while temporary working capital should generally be financed by short term sources." (Crum & Goldberg,

1998) But “the snag in the distinction between temporary and permanent working capital is that the minimum level of current assets must be determinable precisely which, in practice, is difficult, for an external analyst. However the external analyst may consider the working capital margin (excess of current assets over current liabilities) as a crude estimate of permanent working capital.” (Bardia, 1988)

Accordingly we have made an attempt to analyse the pattern of working capital financing by the different oil companies under study.

5.2. IMPORTANCE OF ADEQUACY OF WORKING CAPITAL

The importance of adequacy of the working capital in a business cannot be over – emphasized “without adequate working capital there can be no progress. (Banerjee, Financial policy and management accounting, 2017) “To run a business efficiently, an adequate amount of working capital is very essential. In its absence fixed assets cannot gainfully be utilised. The business should have enough funds to meet its obligations well in time. To avoid interruptions in the business operations, a concern requires funds to finance inventories and receivables. ” (Goldberg & o, 1964) The adequacy of cash and other current assets together with their efficient handling virtually determine the survival of demise of an enterprise. ” Hence,” working capital is considered the life blood and the controlling nerve entire of a business. ” (Agarwal, 1983)

Adequate working capital fulfils not only necessary requirement of a business but it also provides other facilities and opportunities such as it makes possible to take advantage of cash discount, and it helps determine credit terms to customers. Moreover, it enables a company to operate its business more efficiently and effectively because there would be no delay to credit difficulties in obtaining materials, services and supplies. It also enables a company to withstand the period of depression smoothly. ” Adequate working capital is a business ailment. ” (Thomas, 1950)In case a firm fails to plan the requirements of the working capital properly, it may have no occasion of inadequate working capital and another occasion of excess working capital. A firm may have inadequate working capital and another occasion

of excess working capital. A firm may have inadequate working capital mainly because of the following reasons:

- (1) Shortage of liquid funds
- (2) No or underinvestment in market security.
- (3) Under investment in receivables
- (4) Underinvestment in inventory.

The effects of inadequate working capital are at times alarming. The immediate effects of inadequate working capital are: (a) low liquidity (b) low profitability (c) higher interest charges (iv) under-utilisation of production capacity. So every concern should plan its cash requirement properly and try to maintain the required balance in cash.

5.3. ANALYSIS OF WORKING CAPITAL

With a view to appraise the performance in utilisation of working capital by the selected oil companies under the study, the analysis of working capital has been made from the view point of:

- Short term creditors
- Efficiency in the use of working capital
- Investment in working capital
- The collection policy of debts

Short term creditors are primarily concerned with the analysis of short term financial position or test of liquidity, which is valuable to management in checking the efficiency with which working capital is being employed in the business. The problems posed in connection with the ratio analysis of the short term financial position are:

- (i) Will the company also pay its current debts promptly?
- (ii) Is management utilizing the capital effectively?
- (iii) Is the current financial position improving?

The following ratios have been calculated to evaluate the performance of working capital:

1. Current ratio
2. Quick ratio
3. Working capital turnover
4. Inventory to working capital ratio
5. Debtors to turnover
6. Average collection period.

I. CURRENT RATIO

Current ratio is the relationship between current assets and current liabilities.

In the form of formula, it can be expressed as follows:

$$\text{CURRENT RATIO} = \frac{\text{CURRENT ASSETS}}{\text{CURRENT LIABILITIES}}$$

It represents a rupee of current assets available for each rupee of current liabilities. The ratio indicates the ability of a firm to meet its maturing current obligations. This ratio warns a business that the size of the current assets should be sufficiently larger than the current liabilities so that the firm might be assured of being able to pay its current maturing debts as and when it becomes due.

The higher the current ratio, the larger the firm's ability to meet current obligations and the greater the safety of funds of short term creditors. But an extremely high current ratio may be indicative of slack management practices. Hence a current ratio of 2:1 is considered reasonable and satisfactory.

The current ratio of the selected lubricant oil companies under study as a whole and of the individual companies under the study has been shown in the figure below.

Table 5.1: Current Ratio of Indian Oil Corporation Ltd. , Hindustan Petroleum Corporation Ltd. , Castrol India Ltd. , Apar Industries Ltd.

(From 2011-12 to 2015-16)

	2011-12	2012-13	2013-14	2014-15	2015-16	Average
Indian oil	1.00	1.02	0.99	0.97	9.09	2.61
HPCL	0.86	0.80	1.12	1.16	1.02	0.99
Castrol India Ltd	1.45	1.37	1.52	1.17	1.24	1.35
Apar Industries Ltd	1.13	1.10	1.12	1.14	1.22	1.14

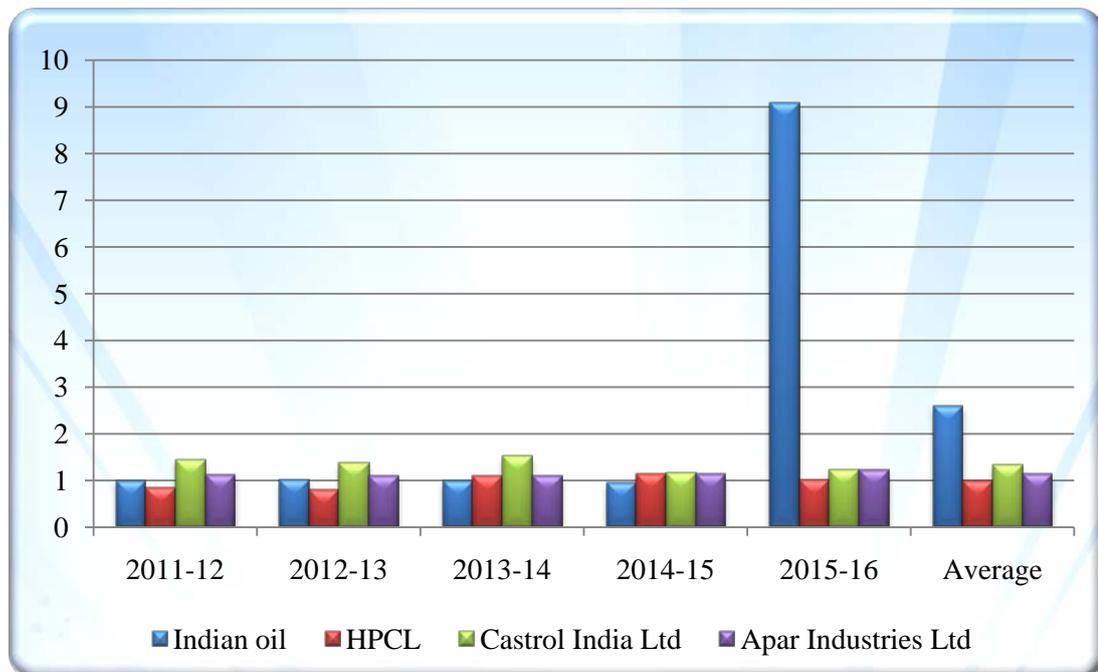


Figure 5.2: Current Ratio of Indian Oil Corporation Ltd. , Hindustan Petroleum Corporation Ltd. , Castrol India Ltd. , Apar Industries Ltd.

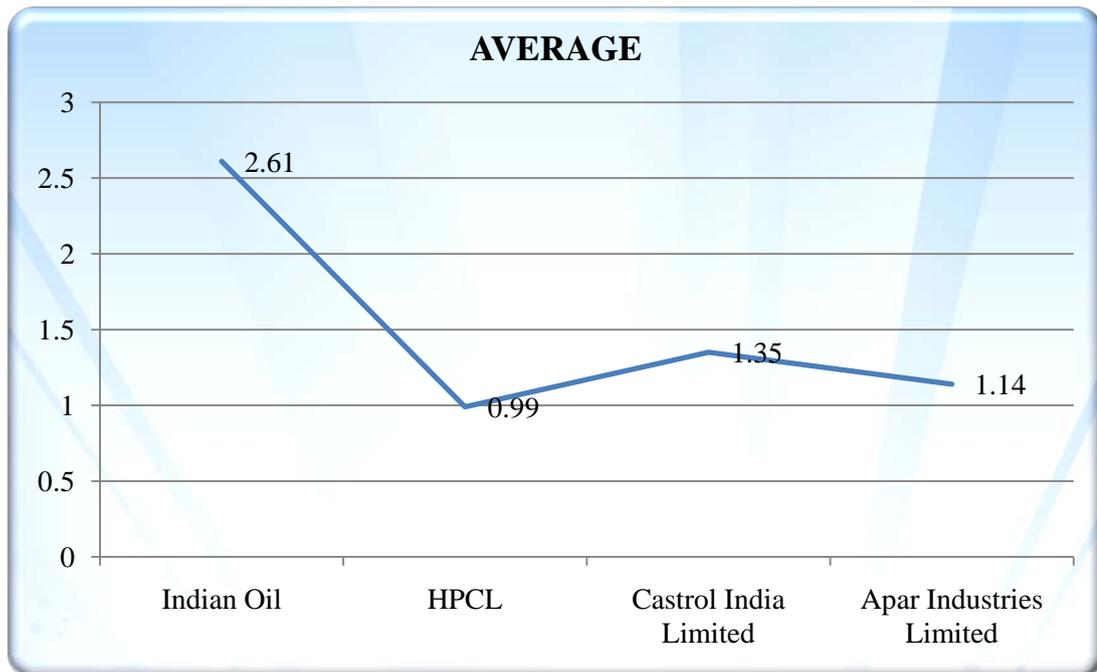


Figure 5.3: Graph showing the average current ratio

It is evident from the table that on an average Indian oil corporation limited held a current ratio of 2.61 times. It implies that for every rupee of current liability 2.16 rupees of current assets are available to meet them. In other words it can be said that the current assets are more than two times of the current liabilities. In 2011-12 it was 1.00 times which increased to 9.09 times in 2015-16.

During the whole of the study period from 2011-12 to 2015-16 the current ratio in Hindustan Petroleum Corporation limited was below the norm. It varied from .86 times in 2011-12 to 1.02 times in 2015-16. On an average the current ratio in the company was .99 times. It implies heavy reliance on short term financing, and so from the view point of creditors the liquidity of the company cannot be considered satisfactory. A slight decline in the value of current assets in the year 2015-16 may adversely affect the ability of the company. More investment in current assets will give a sufficient cushion to the creditors of the company and the company will be able to meet its obligations in full.

In Castrol India limited the current ratio was also below the norms in most of the years. In no year (taken under the study) the ratio was as per the norms. It varied from 1.45 times in 2011-12 to 1.24 times in 2015-16. On an average the company

held the current ratio of 1.35 which was below the norm. Hence the company is advised to enhance its current ratio.

In Apar industries, the trend of this ratio was also towards an increase. But on an average the company held the ratio of 1.14 times which was below the standard norm. The company's current ratio varied from 1.13 times in 2011-12 to 1.22 times in the year 2015-16. Hence the company is advised to keep its current ratio within reasonable limits.

It may not be out of place to mention here that current ratio may also indicate the financing of working capital. If the current ratio of a firm is 2:1, it will indicate that 50 percent current assets have been financed by long term sources. If the current ratio is more or less than 2:1, the percentage of financing the current assets through long term sources will also be more or less than 50 percent.

On an average, if we look at all the lubricant oil companies (taken under the study) except Indian Oil Corporation limited, these companies indicate that more than 50 percent current assets have been financed through long term sources. Except Indian oil Corporation limited, all that companies under the study appear to have followed the policy of financing the current assets through long term sources by more than fifty percent.

II. ACID TEST OR QUICK RATIO

Though the current ratio is the measurement of short-term financial solvency, but it does not measure the quality of current assets. Thus an additional analysis of the quality of current assets may be investigated by acid-test or quick ratio.

The acid test ratio is a measure of liquidity designed to overcome the defect of the current ratio. It is a measurement of a firm's quickly into cash in order to meet its current liabilities. Thus, it is a measure of quick or acid liquidity.

The acid test ratio is the ratio of quick assets (cash, Marketable securities, and net receivables) to current liabilities.

$$\text{Acid-Test Ratio} = \frac{\text{Quick Assets}}{\text{Current Liabilities}}$$

Inventories and prepaid expenses are excluded from this computation because they might not be readily convertible into cash. The creditors are interested particularly in this ratio since it relates to the pool of cash and immediate cash inflows to immediate cash outflows. Generally, an acid test ratio 1:1 is considered satisfactory as a firm can easily meet all current claims.

The acid-test ratio of the selected lubricant oil companies under study as a whole and of the individual companies under the study has been shown in the figure below.

Table 5.2: Acid-TEST ratio of Indian Oil Corporation Limited, Hindustan Petroleum Corporation Limited, Castrol India Limited, Apar Industries Limited

(From 2011-12 to 2015-16)

	2011-12	2012-13	2013-14	2014-15	2015-16	Average
Indian oil	0.55	0.56	0.52	0.56	0.55	0.54
HPCL	0.47	0.54	0.52	0.54	0.47	0.508
Castrol India Ltd	1.06	0.73	1.08	0.80	0.96	23.6
Apar Industries Ltd	0.30	0.28	0.45	0.44	0.42	0.37

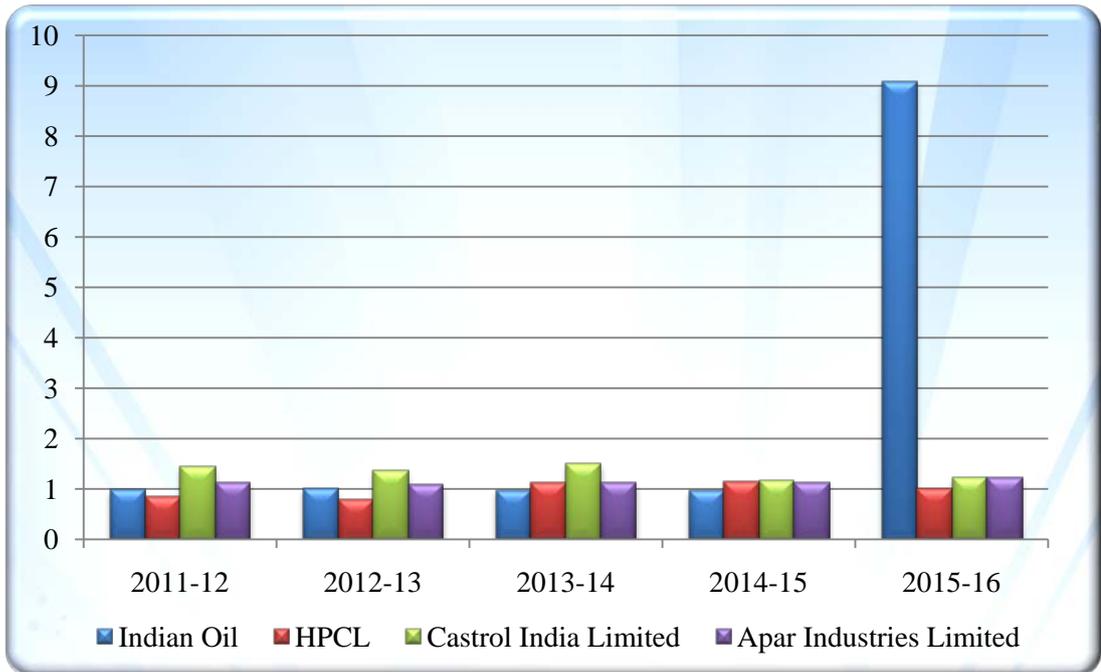


Figure 5.4: Acid-TEST ratio of Indian Oil Corporation Limited, Hindustan Petroleum Corporation Limited, Castrol India Limited, Apar Industries Limited

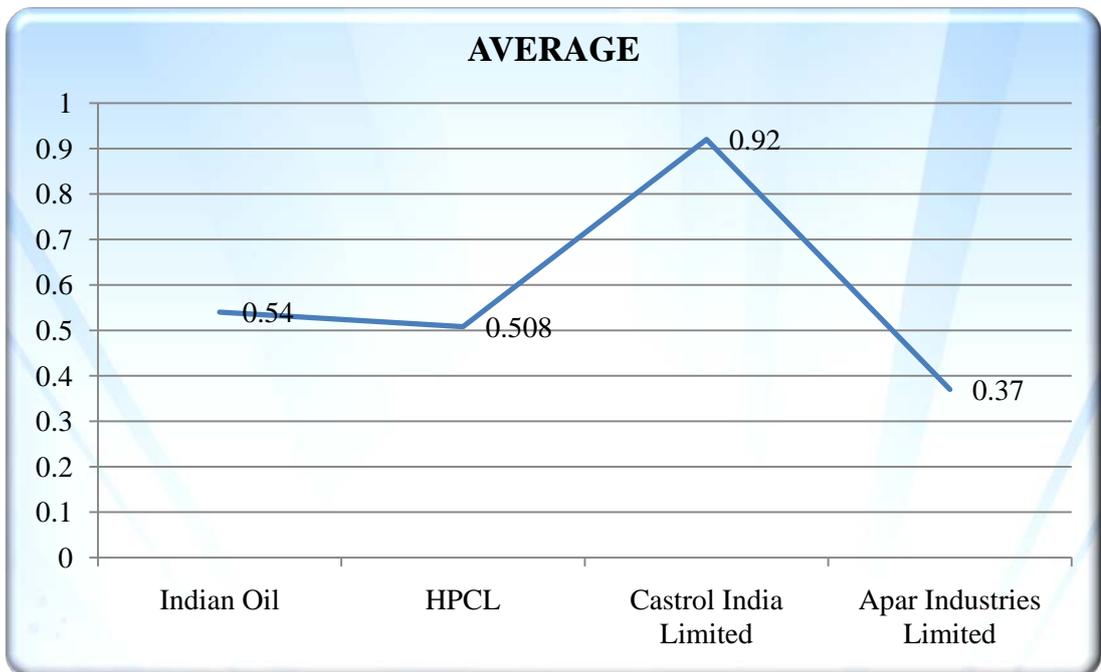


Figure 5.5: average acid test ratio

It is evident from the table 5.2 which shows that there was a fluctuating trend in the acid-test ratio of the lubricant oil companies taken under the study.

The acid –test ratio in Indian Oil Corporation Limited fluctuated from. 55 times in 2011-12 to. 55 times in 2015-16 and had a fluctuating trend. During all the years (taken under the study) the ratio was below the norms. On an average the company held the ratio of. 54 times which was less than norm. On the whole the liquid position of the company during the last five years was quite unsatisfactory and the company is advised to improve this fluctuating trend.

In case of Hindustan Petroleum Corporation limited, on an average the company held the acid test ratio of. 51 times, which was lower than other companies under the study but higher than Apar Industries. During the whole of the study period the ratio of the company was fluctuating. Hence the liquidity position of the company was not considerably good but better than Apar industries limited. The ratio varied from. 47 times in 2011-12 to 1.52 times in 2013-14 and. 47 times in 2015-16. The reason behind the decreasing trend was comparatively low decrease in quick assets as compared to steep decline in current liabilities.

The acid-test ratio in Castrol India limited fluctuated from 1.06 times in 2011-12 to 1.08 times in 2013-14 to. 96 times in 2015-16. During the early years the ratio was below the norms except in 2011-12 and 2013-14. On an average the company held the ratio of. 92 times which was less than the norm. On the whole, the liquidity position of the company during the last three years except in 2013-14 was quite unsatisfactory and the company is well advised to improve this trend.

In case of Apar Industries limited, on an average the company held the acid test ratio of. 37 times, which was lower among all the companies taken under study. During the whole of the study period, the ratio of the company was lower than the norm. Hence, the liquidity position of the company was considerably unsatisfactory. The ratio varied from. 30 times in 2011-12 to. 42 times in 2015-16. The liquidity position of the company is therefore, threatened, and there has been an acute

shortage of working capital throughout the study period. The decline in this ratio was the effect of increase in current liabilities while decrease in quick assets.

On the whole it can be inferred from the above discussion that except Indian Oil Corporation Limited, all the companies taken under the study held on an average quite unsatisfactory acid-test ratio.

III. WORKING CAPITAL TURNOVER:

The ratio of working capital turnover is computed by dividing the amount of sales by the net working capital.

$$\text{Working capital turnover ratio} = \frac{\text{Net Sales}}{\text{Net Working Capital}} .$$

Working capital turnover reveals whether a business is being operated with small or large amount of net working capital in relation to sales. A very high working capital ratio may be the result of favourable turnover of inventories and receivables or may reflect an inadequacy of working capital and over trading. On the other hand, a very low ratio may be the outcome of an excess of working capital, slow turnover of inventories and receivables, a large cash balance or investment of working capital in the form of temporary investments. The very low ratio is also an indicator of under trading which means more working capital funds have been invested in the business than needed.

The working capital turnover ratio of the selected lubricant oil companies under study as a whole and of the individual companies under the study has been shown in the figure below.

Table 5.3: Working Capital Turnover Ratio of Indian Oil Corporation Limited, Hindustan Petroleum Corporation Limited, Castrol India Limited, and Apar Industries Limited

(From 2011-12 to 2015-16)

	2011-12	2012-13	2013-14	2014-15	2015-16	Average
Indian oil	-52	145.45	-637.94	-204.16	-39.63	-157.65
HPCL	-30.21	-41.34	52.08	53.38	259.22	58.62
Castrol India Ltd	8.46	8.82	7.08	19.28	12.58	11.24
Apar Industries Ltd	11.25	17.52	16.00	17.52	11.25	14.70

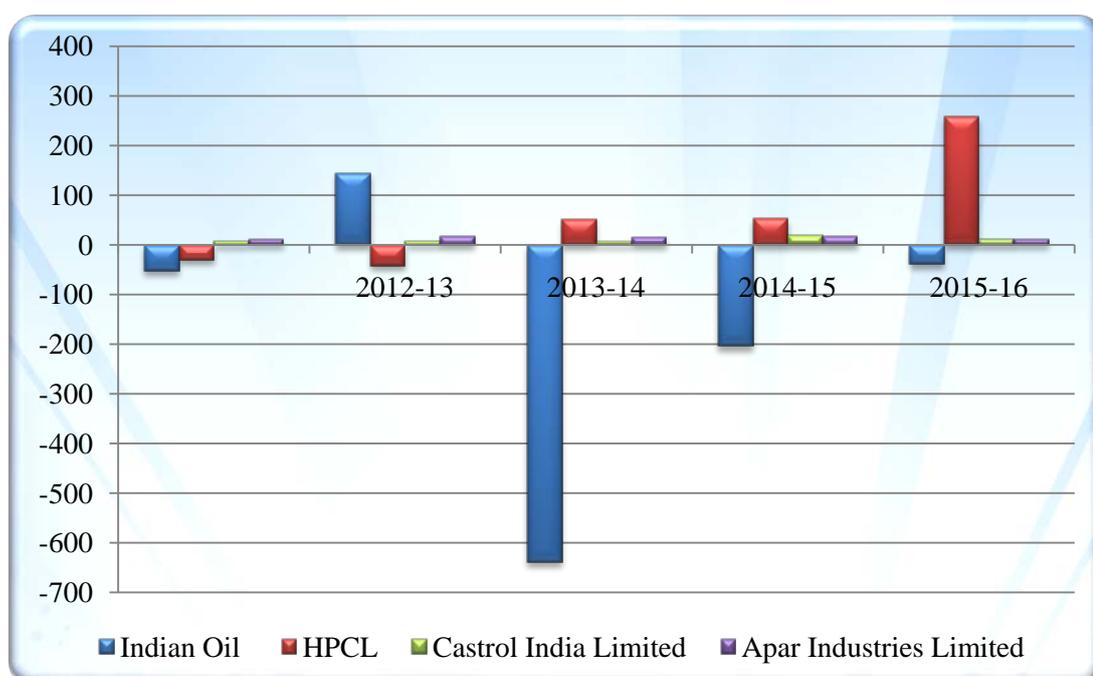


Figure 5.6: Working Capital Turnover Ratio of Indian Oil Corporation Limited, Hindustan Petroleum Corporation Limited, Castrol India Limited, and Apar Industries Limited

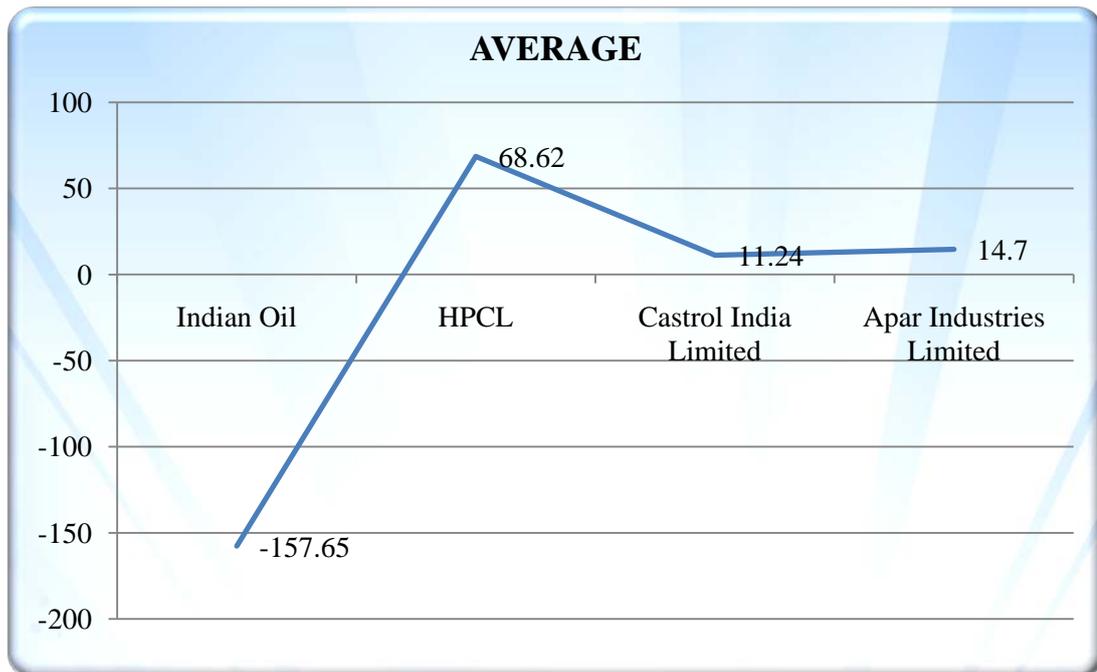


Figure 5.7: Average working capital ratio

A look at the data in the above table, it is clear that there was a fluctuating trend in the working capital turnover ratio of all the companies taken under the study.

In the case of Indian Oil Corporation Limited, on an average, the company held the ratio of -157.65 was the lowest among the companies taken under the study. It shows that there was an excessive investment in working capital and the company had followed the policy of under trading. Had the company followed a sound financial policy, the turnover of working capital would have been much better.

The working capital turnover ratio of Hindustan Petroleum limited during the period of study fluctuated widely from -30.21 times in 2011-12 to 259.22 times in 2015-16. The ratio during the early years was lower than the later years. During the later years the working capital of the company increased substantially while on the other hand sales increased and this result in higher ratio of 259 times in the year 2015-16. The ratio in this company was higher than that of the rest of the companies on the whole, the company appears to have utilised its working capital during later years efficiently, though the working capital position of the company during 2012-13 was poor.

In Castrol India limited, the working capital turnover ratio was towards increase in all the years taken under the study except in the year 2013-14 which was 7.08 times. During the year 2014-15 this ratio was highest to 19.28 times. There is a need to increase in the sales without a corresponding increase in working capital.

Apar industries Limited held a reasonable and satisfactory turnover ratio during the last five years of the study period. The average working capital turnover ratio was 14.70. It shows that there was sufficient level of working capital in the company. On the whole, it seems that the company has utilised its working capital in an efficient manner.

An inter-firm comparison of this ratio shows that the highest turnover ratio it shows that the highest turnover ratio was in Hindustan Petroleum Corporation Limited followed by Castrol India limited, Apar Industries Limited and Indian Oil Limited respectively. Hindustan Petroleum followed a policy of overtrading while Indian Oil followed a policy of under trading, rest of the companies have balanced ratio.

IV. INVENTORY TO WORKING CAPITAL RATIO:

The ratio of inventory to working capital is an indication of the amount of working capital invested in inventory. The term 'inventory' includes raw materials, work-in-progress (semi-finished goods) and finished goods. The usual rule of this ratio is that inventory should not exceed working capital and generally it is preferred to be around three quarters (i. e. . 75 times) of the working capital.

The inventory to working capital ratio of the selected lubricant oil companies under study as a whole and of the individual companies under the study has been shown in the figure below.

Table 5.4: Inventory to Working Capital Ratio of Indian Oil Corporation Limited, Hindustan Petroleum Corporation Limited, Castrol India Limited, Apar Industries Limited

(From 2011-12 to 2015-16)

	2011-12	2012-13	2013-14	2014-15	2015-16	Average
Indian oil	-7.4	19.28	-87.13	-21.22	-4.32	-20
HPCL	-3.29	5.62	-5.32	3.32	18.16	3.69
Castrol India Ltd	.85	.89	.83	2.07	.09	.94
Apar Industries Ltd	2.17	2.86	3.60	3.00	1.92	2.71

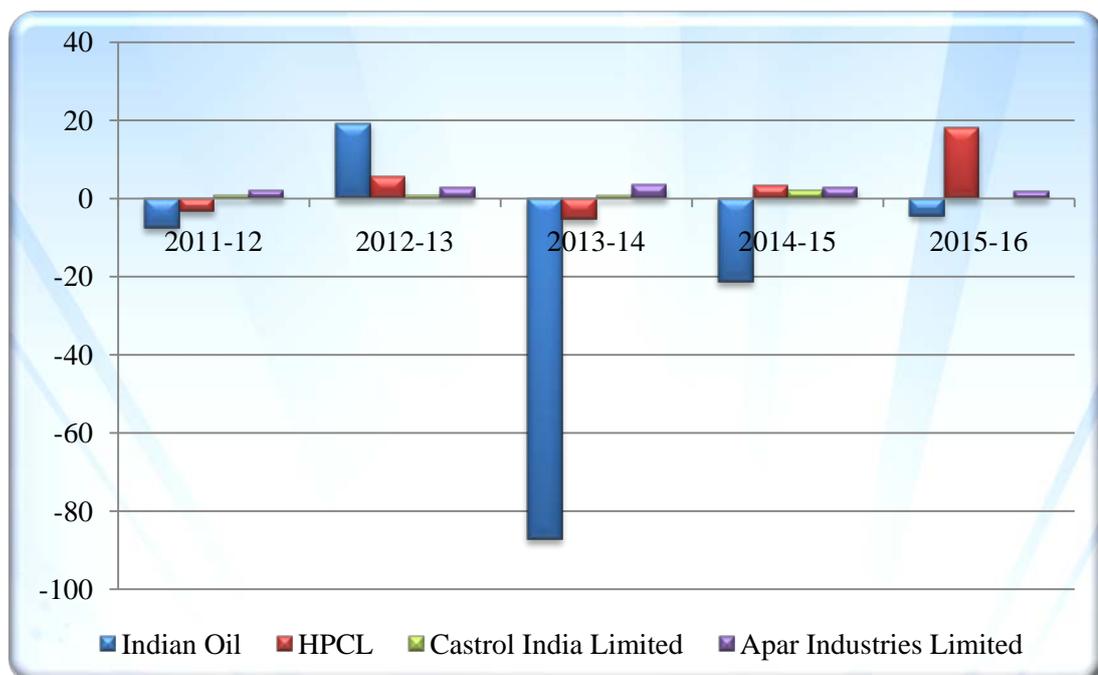


Figure 5.8: Inventory to Working Capital Ratio of Indian Oil Corporation Limited, Hindustan Petroleum Corporation Limited, Castrol India Limited, Apar Industries Limited

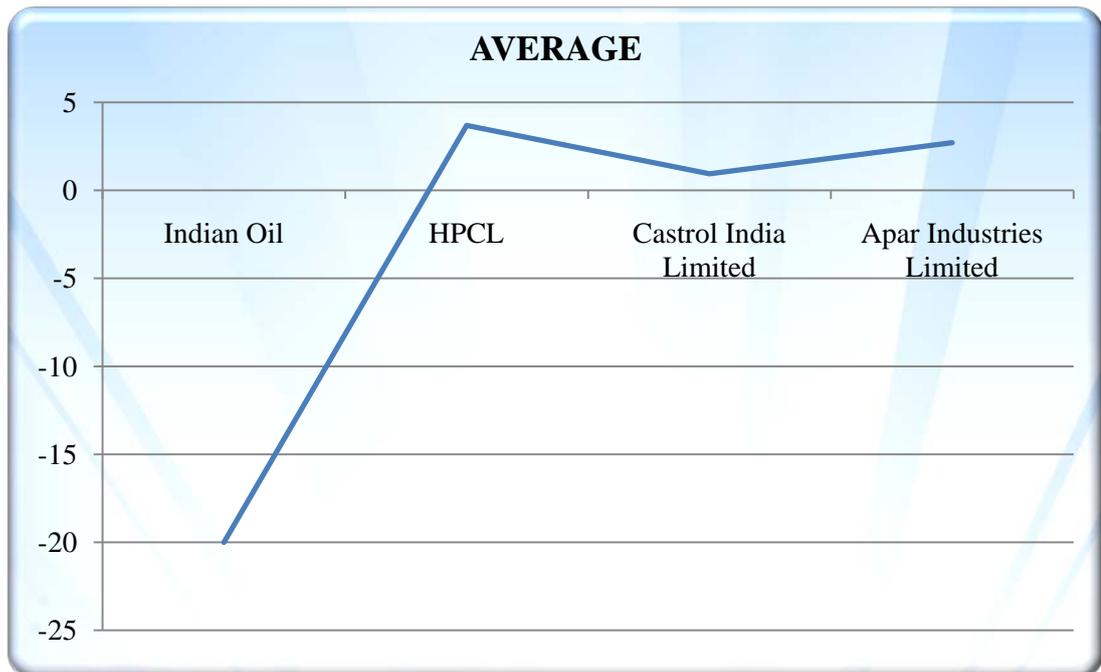


Figure 5.9: Average Inventory to working Capital Ratio

It is evident from the table that during the whole of the study period the inventory to working capital ratio of the group kept on fluctuating. Looking at the averages of the selected lubricant oil companies, the ratios shows that the amount of inventories was less than the amount of working capital. In comparison to this norm, the group had a better ratio.

An inter –firm comparison shows that the highest ratio was in Hindustan Petroleum Corporation limited with an average of 3.69 times followed by Apar Industries limited with an average of 2.71 times, Castrol India limited with an average of. 94 times and Indian Oil limited with an average of -20 times respectively.

In Indian Oil Corporation limited, the average is negative which means that company does not have sound working capital position. The company needs to tie up more working capital funds in inventories.

Hindustan Petroleum Limited and Apar Industries limited have sound working capital position. As the ratio of Hindustan Petroleum Limited is more than one which shows that more of the working capital funds were tied up in inventories.

V. DEBTORS TURNOVER:

The amount of trade debtors depends upon sales volume, credit extension practice and the effectiveness of the collection policy. Since debtors constitute a major element of current assets, the credit and collection policies of the business must be under continuous watch. The amount of trade debtors at the end of the accounting period should not exceed a reasonable device to find out as to how many days average sales are tied up in the value of amount owed by debtors according to the balance sheet.

The debtors turnover or receivables turnover ratio measures how rapidly debtors are collected, though it is not immediately apparent from the debtors turnover ratio and therefore, it has to be supplemented by the average collection period which will be discussed later.

The debtors turnover ratio has been calculated by dividing the amount of sales by the amount of debtors including acceptances. Here the sales figure has been assumed to be of credit sales. A high ratio is indicative of shorter timelag between sales and cash collection, a low ratio shows that debtors are not collected rapidly.

$$\text{Debtors turnover ratio} = \frac{\text{Net Credit Sales}}{\text{Average Account Receivables}}$$

The debtors' turnover ratio of the selected lubricant oil companies under study as a whole and of the individual companies under the study has been shown in the figure below.

Table 5.5: Debtors Turnover Ratio of Indian Oil Corporation Limited, Hindustan Petroleum Corporation Limited, Castrol India Limited, Apar Industries Limited

(From 2011-12 to 2015-16)

	2011-12	2012-13	2013-14	2014-15	2015-16	Average
Indian oil	42.87	42.62	42.48	49.21	47.43	44.92
HPCL	57.35	48.64	42.93	45.57	46.07	48.11
Castrol India Ltd	13.71	14.23	13.92	13.34	12.99	13.63
Apar Industries Ltd	4.71	5.58	4.88	4.39	4.34	4.78

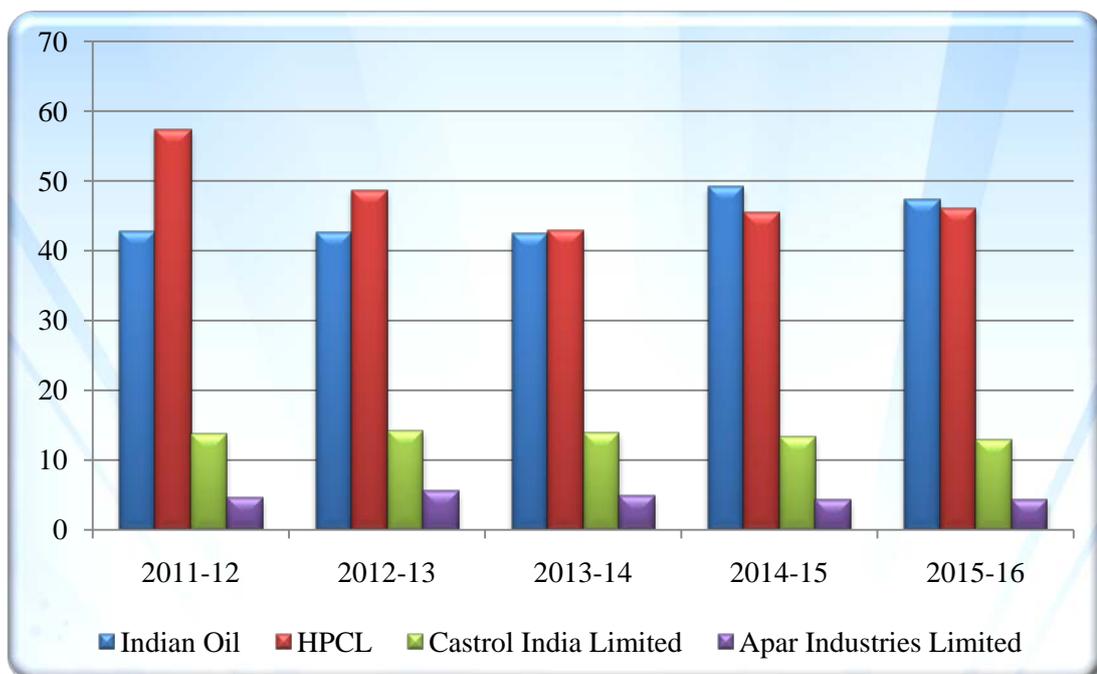


Figure 5.10: Debtors Turnover Ratio of Indian Oil Corporation Limited, Hindustan Petroleum Corporation Limited, Castrol India Limited, Apar Industries Limited

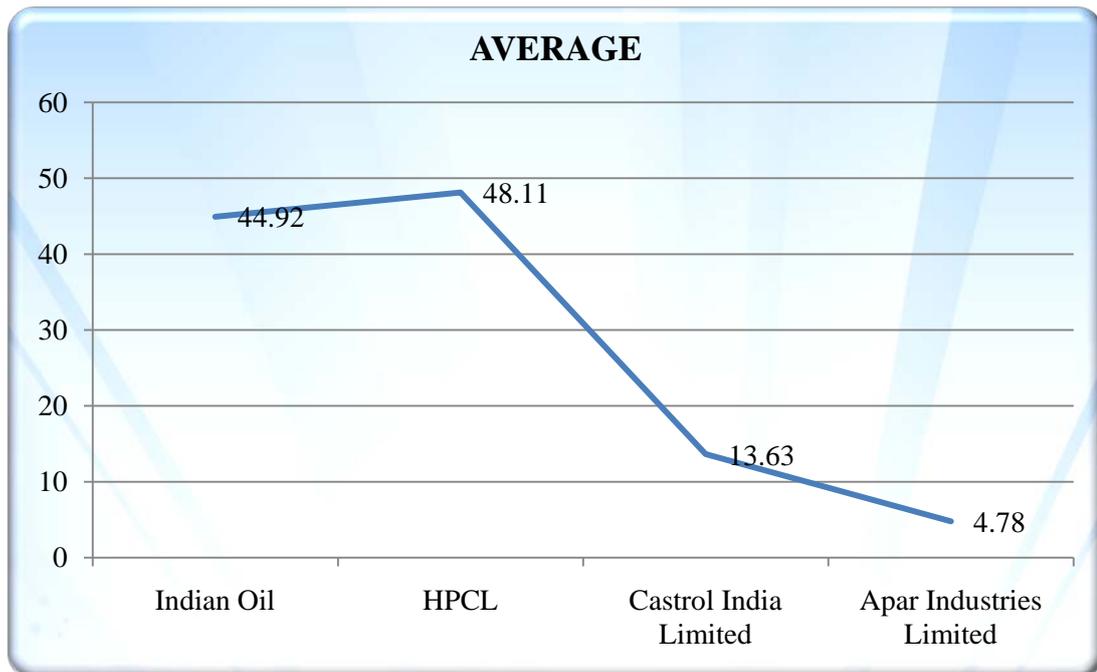


Figure 5.11: Average Debtors turnover ratio

Table 5.5 shows that these lubricant oil companies had a varying trend which ranged from 48.11 times being highest on an average to 4.78 times which is lowest on an average. An inter-firm comparison reveals that debtors turnover ratio was the highest in Hindustan Petroleum Corporation Limited followed by Indian Oil Corporation Limited, Castrol India Limited, Apar Industries Limited respectively. Looking into the table, the ratio shows that the companies followed an efficient credit and collection policy.

In Indian Oil Corporation Limited, the ratio was lower than that of Hindustan Petroleum Limited but higher than all the other companies of the study period. The debtor turnover ratio in this company ranged from 42.87 times in the year 2011-12 to 47.43 times in the year 2015-16. This turnover ratio shows the efficiency of the company and that the debts are being collected rapidly.

In Castrol India limited, the ratio was normal during the whole of the study period. It shows the efficiency of the company positively. It ranged from 13.71 times in the year 2011-12 to 12.99 times in the year 2015-16. This decline trend shows that the debts are not being collected rapidly in the later years.

In Apar industries limited, the ratio was the lowest among all the companies during almost the whole of the study period and was towards increase. This shows its turnover also increased. This increased turnover shows the increased efficiency of the company in the later years.

The overall debtor turnover ratios of all these companies is quite satisfactory which shows that these companies have good collection policy from the debtors.

VI. AVERAGE COLLECTION PERIOD

The average collection period measures the quality of debtors since it indicates the rapidity or slowness of their collectability. According to Ercites P. Lewis," the average collection period is a significant measure of collection activity and the quality of accounts receivables. " The shorter the average collection period, the better the quality of customers and the lower the collection expenses. Delays or prolonged hold ups in collection can cause major financial embarrassments, as alternative source of funds will have to be arranged for sustaining operations. " Slow paying customers have to be handled tactfully to make perfect payments. "

The formula for calculating this period can be expressed as follows:

$$\text{Average collection period} = \frac{\text{No. of working days}(365)}{\text{Debtors turnover ratio}}$$

The average collection period of the selected lubricant oil companies under study as a whole and of the individual companies under the study has been shown in the figure below.

Table 5.6: Average Collection Period of Indian Oil Corporation Limited, Hindustan Petroleum Corporation Limited, Castrol India Limited, Apar Industries Limited

(From 2011-12 to 2015-16)

	2011-12	2012-13	2013-14	2014-15	2015-16	Average
Indian oil	8.51	8.56	8.59	7.41	7.69	8.15
HPCL	6.36	7.50	8.50	8.00	7.92	7.65
Castrol India Ltd	26.62	25.65	26.22	27.36	28.09	26.78
Apar Industries Ltd	77.49	65.41	74.79	83.14	84.10	76.98

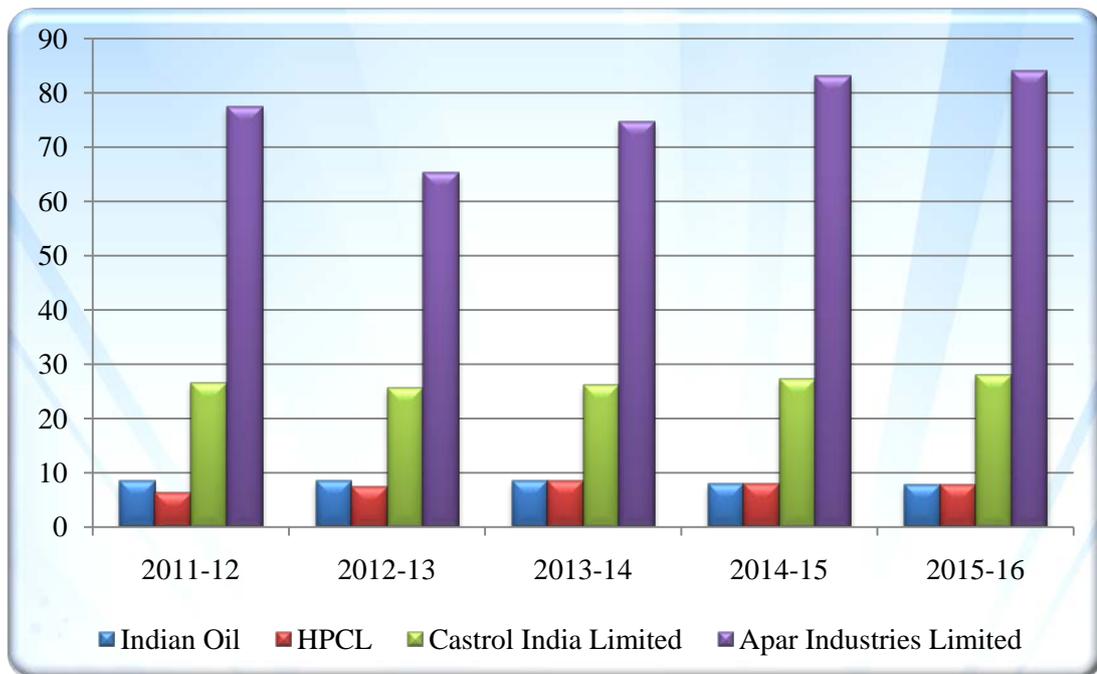


Figure 5.12: Average Collection Period of Indian Oil Corporation Limited, Hindustan Petroleum Corporation Limited, Castrol India Limited, Apar Industries Limited

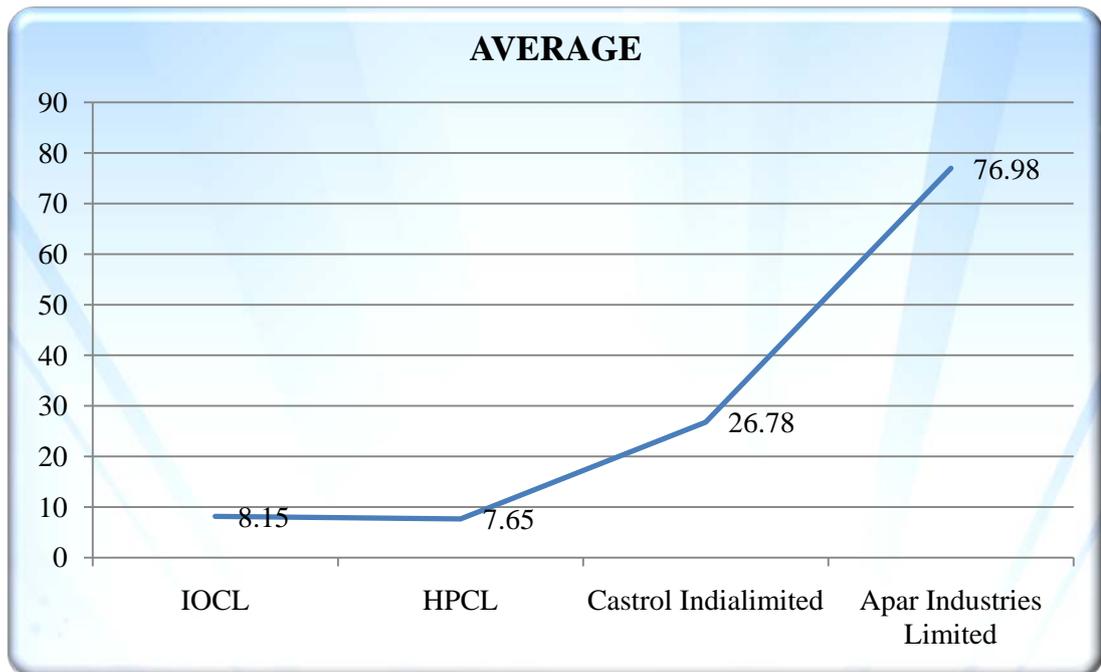


Figure 5.13: Average of average collection period

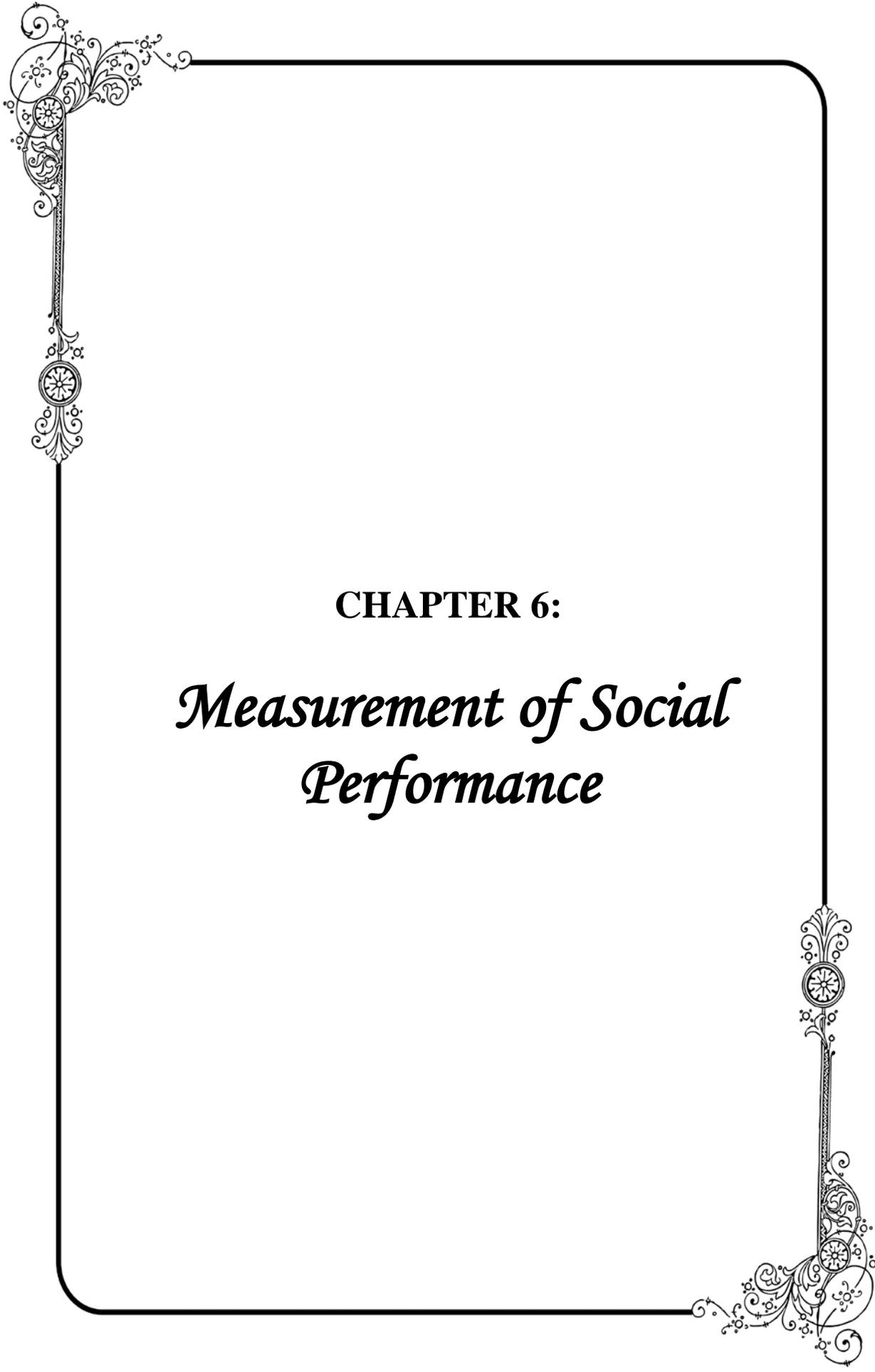
It is evident from the above table that in the group the average collection period had shown an invariably static trend throughout the period of the study.

A comparative study of the average collection period in all the companies reveal that the recovery and collection policy of Apar industries limited was better than that of other three companies.

Table 5.6 indicates that the average collection period in Apar industries limited had shown an invariably trend of increase throughout the period of study.

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CHAPTER 6:

*Measurement of Social
Performance*

CHAPTER-6

MEASUREMENT OF SOCIAL PERFORMANCE

6.1 CONCEPT OF SOCIAL PERFORMANCE

“The value of a business enterprise to the society is called its social performance.” (Gupta, 2003) In this context, Meinolf and Raymond wrote, “A good deal of research and experimentation are now being conducted to devise techniques which measure the contribution that an enterprise makes, to the society.” (Gupta, 2003) This kind of thinking emphasises that business under-takings have social responsibility and that their performance in this context should be measured.

Business enterprises are seen as directly and indirectly concerned with the society and their resources should be used for optimal social good. The resources owned by the business may be indicated by 4 Ms: Man, Material, Machine and Money. Social performance consists of all these resources which are to be used for the good of the society in general and business in particular. It would be appropriate to point out here that there is no fundamental difference between the interests of the society and the interests of the individual business entity. If these resources are utilised in the best manner, they will appear to have yielded the maximum benefits to the society.

The other view in the context of measuring social performance is to attempt a systematic record of social costs caused by an organisation and social benefits generated by it for the society. Every organisation is responsible for certain social costs, some of which are identified as below:

SOCIAL COSTS

(a) Pollution:

- Air Pollution:
 - (i) Destruction of property values.
 - (ii) Smoke and its effect on human health
 - (iii) Effect upon the plant and the animal life.
- Water Pollution

- (b) Depletion and destruction of resources such as
 - Animal resources
 - Energy resources
 - Deforestation
- (c) Social Costs, regarding:
 - Distribution,
 - Transportation
- (d) Impairment of the human Factors of Production:
 - Social losses resulting from employment of children and woman,
 - Work injuries and occupational diseases,
- (e) Costs relating to unemployment and idle resources.
- (f) Monopoly and social losses.
- (g) Costs of foreign exchange for certain raw material, machinery and technical knowhow.

Like the social costs which are listed above, there are some social benefits of a business to the society. The following are some of the benefits that the business may provide.

- a. Creating Employment- A business entity creates employment opportunities in the country. The projects having a higher employment potential are naturally preferred in developing countries.
- b. Providing jobs to the weaker sections- A business entity provides jobs to the weaker sections of the society on a preferential basis, such as minorities, scheduled castes and scheduled tribes, handicapped, etc. in order to uplift them socially and give them a better status.
- c. Engaging in certain unprofitable activities such as exploring mineral resources etc.
- d. Benefits regarding foreign exchange by exporting indigenous products.
- e. Developing indigenous products for import substitution.
- f. Providing opportunities to consumers- A business enterprise provides a wide choice to the consumers by developing several products to satisfy varying tastes and temperaments.

- g. Developing good townships for employees and better social life for them.
- h. Offering fair wages and healthy condition of work.
- i. Adopting pricing policies which favour certain small scale enterprises and weaker section of the society.
- j. Undertaking training programmes for managers and workers so as to improve the long run productivity.
- k. Establishing conscious efforts to encourage purposeful competition to grow and flourish.

On the theoretical plane, it is easy to make these observations, but it is very difficult in practice to determine the value of all the costs and benefits. A number of proposals have been put forward to measure the social performance of a business entity. Linowas has proposed “the preparation of a socio-economic operating statement (SEOS) to show the various costs and benefits of social action of enterprises. ” (Gupta, 2004) This statement attributes monetary values of various actions of an enterprise. Most of which aim at measuring the social performance considering factors like human resources contribution, environmental contribution, product or services contribution and net income of the enterprise.

Till generally acceptable standards of measuring the social performance are found, a statement of value added has been considered a fair means of understanding the contribution of a company to the society. “The word value added is sales value less the cost of bought-in goods and services used in producing those sales. ” (Gupta, 2003) In other words the value added is the residue of sales after providing the cost of goods and services used in producing those sales. It includes the employees’ cost. It is different from ‘Profit’ as profit excludes all these costs except dividend. So we can say that value added is a basic and broad measure of judging the social performance of an enterprise.

6.2 CONCEPT OF VALUE ADDED STATEMENT

Traditionally, the common practice has been to evaluate the performance of an enterprise in terms of the profits realised during an accounting period. Profits may be in terms of absolute figures, or in percentages. In recent decades another or

additional approach has been used for measuring the success of an organisation, i. e. 'cash management'. Since in the period of high inflation and tight cash controls it is more important to be efficient in 'cash management' than to earn 'profit'. An enterprise can survive in the short run without profit but it cant survive without liquidity. To reveal the profit and liquidity position of business " profit and loss A/c" and" funds flow statement" are prepared but in recent times these disclosures are being given as an additional statement i. e. " value added statements". Although its presentation is neither statutory nor obligatory but considering its unique significance some leading companies have started presenting the value added statements in their annual reports.

Actually the interest in presenting this statement with the annual reports has increased since the publication of" the corporate report" (Institute of Chartered Accountants in England and Wales, 1976), a discussion paper issued by ASSC in july 1975 and " the green paper" (European Unioin Committee, 2006) a consulative document of british government, published by HMSO London, in july 1977.A study in THE TIMES (London) of 1000 companies for 1977, 1978 found that approximately 18 % of such companies present value at figures with their annual reports. As such value added statement provides a better means of understanding the contribution of company to society. Now it is clear that the practice of presenting value added in the statement with annual reports in becoming increasingly popular.

The familiar profit and loss statement shows the performance of company as it concerns the shareholder, while the value added statement shows the performance of a company as it affect employees, providers of capital and the government. Value added statement is generally preferred to profit and loss statement to measure the total performance, especially in the context of the society as it excludes those costs over which the organisation has either no control or at best, a little control. All the items included in the statement such as payment to employees, payment of dividend to shareholders and depreciation of fixed assets are too large extent controllable. There could be distinct advantages in measuring the performance of an organisation which is based on input over which it has a reasonable degree of control.

It is necessary to point out here that employees cost (like salaries, wages, bonus and any contribution in favour of employee, director's fee etc.), remuneration to providers of capital (interest on debentures, dividend to shareholders, interest on bank loans), payment to government (such as duties and taxes etc) and depreciation are not included in the cost of bought-in-goods and services.

6.3 ALLOCATION OF VALUE ADDED

Value added is allocated among those who have contributed their skills, capital, services for adding the value.

Allocation of value added shows the proportion of wealth created by interested parties of the business enterprise. Apart from the value is deemed to be reinvested in the business in the form of depreciation and retained earnings.

The share available includes:

I. EMPLOYEES

- (a) wages
- (b) salaries
- (c) profit sharing bonus
- (d) contribution to provident fund, gratuity
- (e) ESI, super annuation fund
- (f) Staff welfare cost
- (g) Director's fees

II. GOVERNMENT

- (a) Customs and excise duty
- (b) Corporation tax
- (c) Octroi duty
- (d) Sales tax
- (e) Rates and taxes
- (f) Other direct taxes etc.

If there are any subsidies, tax credits, exports incentives, refund of any tax and duty are granted by the government, they should be reduced from the government share.

III. PROVIDERS OF CAPITAL

- (a) Interest on debentures, long term deposits, bank loans and public deposits etc.
- (b) Dividend on share capital

Reinvested money in the business i. e. depreciation and retained earnings also belong to the shareholders but since they have not been paid out to them, these should be shown separately as reinvestment in business.

6.4 SOCIAL PERFORMANCE OF THE SELECTED COMPANIES IN THE GROUP THROUGH VALUE ADDED STATEMENTS

The social performance of the selected Lubricant oil companies under study and the group taking all the four companies together, common size value added statements have been prepared and analysed. The common size percentages have been computed by taking sales revenue (goods and services). Equal to a hundred on the generation of value added side while on the ‘ value allocation side’ the figures of the total disposal of the value added have been taken as hundred to calculate common-size percentages of each item.

The common size value added statement consists of two parts. The first part ‘ generation of value added’ shows the excess of sales revenue over cost of goods and services bought-in, while the second part ‘allocation of value added’ consists of the value allocated to the different constituent funds reinvested in the businesses are also shown on this side.

The Value Added Statement (VAS) is usually divided into two parts: (A) Generation of Value Added and (B) Application of Value Added. It can be prepared either in “Report or Vertical Form” or “Account or Horizontal Form”. These two forms are shown as under:

X Company Ltd**Table 6.1: Value Added Statement (Report or Vertical Form) for the year ended 31st March...**

Particulars	Amount (Rs.)
A. Generation of Value Added:	
Sales/Turnover (Including excise duties and sales tax excluding Returns, rebates & discounts etc.)	***
± Stock of semi-finished and finished goods	***
Production value	***
Add: Income from services	***
Less : Bought-in-goods and services purchased from outsiders	***
Gross Value Added (GVA)	***
Less : Depreciation and deferred Revenue expenses	***
Net Value Added (NVA)	***
B. Application of Value Added: Receipt by	
Workers/Employees	***
Receipt by Providers of Loan Capital Receipt by Government	***
Receipt by Owners	***
Net Value Added (NVA)	***

X Company Ltd

**Table 6.2 Value Added Statement (Account or Horizontal Form)
for the year ended 31st March...**

<i>Generation of Value Added</i>	<i>Amount (Rs.)</i>	<i>Application of Value Added</i>	<i>Amount (Rs.)</i>
Sales/Turnover (Including Excise duties and sales tax excluding Returns, rebates & discounts etc.)	***	Receipt by Workers/ Employees	***
		Receipt by Providers of Loan Capital	***
± Stock of semi-finished and finished goods	***	Receipt by Government	***
		Receipt by Owners	***
Less: Bought-in-goods and services purchased from outsiders	***		
Gross Value Added (GVA)	***		
Less: Depreciation and deferred Revenue expenses	***		
Net Value Added (NVA)		Net Value Added (NVA)	***

The study concentrated on the critical analysis of data available from the financial statement of Hindustan Petroleum, Castrol, Apar Industries Ltd and Castrol for six years (2011 to 2016) On the basis of the data the Profit & Loss Statement and the Value Added Statement have been prepared simultaneously over the period under study. Data are compiled after considering necessary re-arrangement for the purpose of the study. The analysis has been made in three parts: (i) VAS analysis, (ii) Time Series analysis, and (iii) Ratio analysis. In VAS analysis Gross Value Added (GVA) and Net Value Added (NVA) have been computed by using the format of VAS used by the company just after making some modifications necessary for the purpose of the study. In Time Series analysis the straight trend line equations of GVA and NVA are fitted on the basis of available data by using the method of least squares and trend

values have also been computed for the years under study. Again in the last part of the analysis value-added ratios for the measurement of performance as well as productivity of companies have been computed on the available data.

After the data of all four companies under review, there is a comparison of percentage distribution made by each company in base year as well as in last year. It is just an overview of distribution policy followed by each company under study.

6.5 MEASUREMENT OF SOCIAL PERFORMANCE OF THE SELECTED COMPANIES IN THE GROUP THROUGH VALUE ADDED STATEMENTS

Source: Annual Reports and Accounts (From 2011-12 to 2015-16)

Note: Figures in percentage shows common size percentages.

1. INDIAN OIL CORPORATION LIMITED

The statement showing GVA and NVA figures of IOCL are shown in Table below. Gross value added has increased to 137% as compared to base year where as materials usage in 2015-16 is the second lowest. This clearly shows that the company is more focused into using its resources efficiently and make more value for stakeholders rather than giving to outside parties. However, other expense in profit and loss has become double as compared to base year, since of very small amount as compared to revenue figures, it is causing not much of difference as a whole.

Table 6.3: Value added statement of IOCL

Particulars	31.03.12	31.03.13	31.03.14	31.03.15	31.03.16
Generation of Value Added:					
Sales of Product and Services	458964.16	470650.43	497114.13	467932.00	407296.02
Change In Stock	2852.13	5220.03	1153.00	-8216.07	-3607.24
Value Of Production (VP)	461816.29	475870.46	498267.13	459715.93	403688.78
VP Indices	128.69	132.61	138.85	128.11	112.49
Other Income	3198.02	3514.79	3417.29	4145.95	2246.32
Gross Output	465014.31	479385.25	501684.42	463861.88	405935.10
Less: Bought In Goods and Services Purchased					
Materials Used	417563.10	431480.43	447153.20	413253.96	342586.76
Other Expenditure	28258.51	23349.49	27142.23	27543.92	32018.86
Gross Value Added (GVA)	19192.70	24555.33	27388.99	23064.00	31329.48
GVA Indices	84.36	107.93	120.39	101.38	137.71
Depreciation Charged	4867.79	5200.99	5760.09	4528.66	4852.79
Net Value Added (NVA)	14324.91	19354.34	21628.90	18535.34	26476.69
NVA Indices	78.69	106.32	118.81	101.82	145.44
Distribution Of NVA:					
To Workers/Employees (Staff Cost)	4980.05	7271.27	6618.97	7104.79	7637.09
To Providers Of Capital (Loan Interest)	5590.54	6435.27	5084.42	3435.27	3000.10
To Government (Tax)	-200.31	642.64	2906.42	2722.26	5440.47
To Owners (Dividend and Retained Earnings)	3954.62	5005.17	7019.09	5273.03	10399.03
Net Value Added (NVA)	14324.90	19354.35	21628.90	18535.35	26476.69
Distribution Of NVA in %:					
To Workers/Employees (Staff Cost)	34.76	37.57	30.60	38.33	28.84
To Providers Of Capital (Loan Interest)	39.03	33.25	23.51	18.53	11.33
To Government (Tax)	-1.40	3.32	13.44	14.69	20.55
To Owners (Dividend and Retained Earnings)	27.61	25.86	32.45	28.45	39.28
Net Value Added (NVA)	100.00	100.00	100.00	100.00	100.00

From the above table, it is clearly visible that distribution of value added, with respect to amounts, is consistently approximately the same only in the case of employees. Else, high variation is seen in others. One more thing to be noticed, there is high variation in case of amounts distributed to providers of capital, this reveals that company raises short term loans and uses them since long term loans have constant instalments to be paid. This practice sometimes become harmful for financial health of company since company ends up paying higher amount of interest.

Employees' share of NVA was 34.76% in 2012 and it increased to 38.33% in 2015 following a downfall in next year going to 28.84%. However, cumulative distribution between employees and owners form a major part of at least 60% in each of the year.

i) Time Series Analysis

We can fit straight trend line equations by using the time series data from VAS relating to GVA and NVA with the help of least square method, and then from the straight trend line equations of GVA and NVA we can obtain the estimated figures of GVA and NVA (i. e. Trend Values) for the given time points (i. e. past period) and also for future time points simply by putting the x-values correspond to the different time points (either past or future periods). The trend values relating to GVA and NVA on different given time points are shown respectively in Tables below.

Table: 6.4 Trend values of GVA for the period of five years

Year	X - Values	GVA	x^2	xy	Trend Values
2011-12	-3	19192.70	9.00	-57578.10	22256.00
2012-13	-1	24555.33	1.00	-24555.33	23894.35
2013-14	1	27388.99	1.00	27388.99	25532.69
2014-15	3	23064.00	9.00	69192.00	27171.03
2015-16	5	31329.48	25.00	156647.40	28809.37
Total	0	148281.10	70.00	57341.96	-

Straight trend line equation: $y = 24713.52 + 819.17x$ (1 unit of $x = 6$ months). Using the least squares method fits trend line equation.

Table 6.5: Trend values of NVA for the period of five years

Year	X - Values	GVA	x ²	xy	Trend Values
2011-12	-3	14324.90	9.00	-42974.70	17342.46
2012-13	-1	19354.35	1.00	-19354.35	18950.17
2013-14	1	21628.90	1.00	21628.90	20557.87
2014-15	3	18535.35	9.00	55606.05	22165.58
2015-16	5	26476.69	25.00	132383.45	23773.28
Total	0	118524.12	70.00	56269.70	-

Straight trend line equation: $z = 19754.02 + 803.85$ (1 unit of $x = 6$ months). Using the least squares method fits trend line equation.

The fitted trend line equations relating to GVA and NVA are: $y = 24713.52 + 819.17x$... (1) and $z = 19754.02 + 803.85x$...(2) respectively.

From the above two equations GVA and NVA figures can easily be estimated for the future periods. Suppose we want to know the GVA and NVA for the year 2016-17. Simply by putting $x=7$ in equation-1 and equation-2 we get the estimated GVA and NVA, from which we can forecast about employees' share, dividend payable to shareholders, interest payable to lenders, and retained earnings & depreciation reinvested in business unit for further growth and expansion in future. This analysis gives us an idea about the future contribution by the business unit towards different stakeholders of the company and also targeted profit of the company in future.

ii) Ratio Analysis

For appraising the performance and judging the productivity following ratios are considered for analysis:

- i) *Value added to Sales Ratio* in this case is low due to very high amount of turnover. If you will see, amount in this case is quite high, so as to achieve this amount of turnover company has to make more expenses as compared to others.
- ii) *Net Profit to Value added Ratio* higher the ratio, higher will be the concentration of income in few hands and vice-versa. Company is distributing most of the value added to its manpower and owners.

- iii) *Value added to Material Cost Ratio* focuses the material productivity of the enterprise. This ratio has seen some downfall in between but ultimately increased in last year as compared to base year.

Table 6.6: Value added to Material Cost Ratio

Particulars	Set of Ratios	2011-12	2012-13	2013-14	2014-15	2015-16
Value added to Sales Ratio	GVA to Sales	0.042	0.052	0.055	0.049	0.077
	NVA to Sales	0.031	0.041	0.044	0.040	0.065
Net Profit to Value added Ratio	Net Profit to GVA	0.206	0.204	0.256	0.229	0.332
	Net Profit to NVA	0.276	0.259	0.325	0.284	0.393
Value added to Value of Production Ratio	GVA to Material cost	0.046	0.057	0.061	0.056	0.091
	NVA to Material cost	0.034	0.045	0.048	0.045	0.077

iii) Table: 6.7 Other Key Financial Ratios

Per Share Ratios	Mar 16	Mar 15	Mar 14	Mar 13	Mar 12
Basic EPS (Rs.)	42.83	21.72	28.91	20.61	16.29
Diluted EPS (Rs.)	42.83	21.72	28.91	20.61	16.29
Cash EPS (Rs.)	62.82	40.37	52.63	42.04	36.34
Book Value [Excl Reval Reserve]/ Share (Rs.)	304.57	279.87	271.71	251.68	238.32
Book Value [Incl Reval Reserve]/ Share (Rs.)	304.57	279.87	271.71	251.68	238.32
Dividend / Share(Rs.)	14.00	6.60	8.70	6.20	5.00
Revenue from Operations/Share (Rs.)	1,444.03	1,802.04	1,949.01	1,841.46	1,641.21
PBDIT/Share (Rs.)	91.87	58.89	78.75	71.05	89.14
PBIT/Share (Rs.)	71.88	40.24	55.02	49.63	69.09
PBT/Share (Rs.)	65.14	32.96	41.28	23.24	14.31
Net Profit/Share (Rs.)	42.83	21.72	28.91	20.61	16.29
Profitability Ratios					

Per Share Ratios	Mar 16	Mar 15	Mar 14	Mar 13	Mar 12
PBDIT Margin (%)	6.36	3.26	4.04	3.85	5.43
PBIT Margin (%)	4.97	2.23	2.82	2.69	4.20
PBT Margin (%)	4.51	1.82	2.11	1.26	0.87
Net Profit Margin (%)	2.96	1.20	1.48	1.11	0.99
Return on Net Worth / Equity (%)	14.06	7.76	10.64	8.19	6.83
Return on Capital Employed (%)	8.09	4.28	5.99	5.01	4.39
Return on Assets (%)	4.58	2.39	2.79	2.23	1.88
Total Debt/Equity (X)	0.57	0.73	1.22	1.28	1.22
Asset Turnover Ratio (%)	154.71	199.01	188.11	199.60	189.87
Liquidity Ratios					
Current Ratio (X)	0.91	0.99	0.99	1.03	1.01
Quick Ratio (X)	0.52	0.52	0.51	0.56	0.54
Inventory Turnover Ratio (X)	9.16	9.61	7.31	7.54	7.01
Dividend Payout Ratio (NP) (%)	32.68	30.38	30.09	30.07	30.69
Dividend Payout Ratio (CP) (%)	22.28	16.34	16.52	14.74	13.76
Earnings Retention Ratio (%)	67.32	69.62	69.91	69.93	69.31
Cash Earnings Retention Ratio (%)	77.72	83.66	83.48	85.26	86.24
Valuation Ratios					
Enterprise Value (Cr.)	137,500.69	139,020.07	145,730.40	146,156.56	133,774.89
EV/Net Operating Revenue (X)	0.39	0.32	0.31	0.33	0.34
EV/EBITDA (X)	6.16	9.72	7.62	8.47	6.18
Market Cap/Net Operating Revenue (X)	0.27	0.20	0.14	0.15	0.16
Retention Ratios (%)	67.31	69.61	69.90	69.92	69.30
Price/BV (X)	1.29	1.32	1.03	1.12	1.10
Price/Net Operating Revenue	0.27	0.20	0.14	0.15	0.16
Earnings Yield	0.11	0.06	0.10	0.07	0.06

2. HINDUSTAN PETROLEUM CORPORATION LIMITED

The statement showing GVA and NVA figures of HPCL are shown in Table-2. In Table-2 it is found that both GVA and NVA figures have increased over time (i. e. from 2011-12 to 2015- 16) except in the year 2011-2012. The distribution of Net Value Added is also clearly shown in the table over the period of six years. The GVA and NVA indices (taking 100 in the year 2011-12 as base) reveal a continuous increasing trend (except in 2011-2012) in Value Added throughout the period under study. We have taken information from published and audited financial statements available on site of the company.

**Table 6.8: Value Added Statement of Hindustan Petroleum Value Added
Statement - Hindustan Petroleum**

Particulars	31.03.12	31.03.13	31.03.14	31.03.15	31.03.16
Generation of Value Added:					
Sales of Product and Services	188130.95	215666.45	232188.35	217061.11	197744.28
Change In Stock	824.29	(809.45)	574.43	(3749.44)	(177.40)
Value Of Production (VP)	188955.24	214857.00	232762.78	213311.67	197566.88
VP Indices	129.57	147.33	159.61	146.27	135.47
Other Income	1222.18	1304.28	1209.11	1951.96	1428.17
Gross Output	190177.42	216161.28	233971.89	215263.63	198995.05
Less: Bought In Goods and Services Purchased					
Materials Used	176087.67	200448.28	216491.88	197388.30	176803.27
Other Expenditure	7435.24	8316.56	9295.90	8621.20	10839.60
Gross Value Added (GVA)	6654.51	7396.44	8184.11	9254.13	11352.18
GVA Indices	100.54	111.75	123.65	139.82	171.52
Depreciation Charged	1712.93	1983.52	2201.94	1978.76	2659.44
Net Value Added (NVA)	4941.58	5412.92	5982.17	7275.37	8692.74
NVA Indices	94.82	103.86	114.79	139.60	166.80
Distribution Of NVA:					
To Workers/Employees (Staff Cost)	1583.10	2525.56	2030.30	2414.66	2314.53
To Providers Of Capital (Loan Interest)	2139.24	1412.80	1336.36	706.59	640.14
To Government (Tax)	307.81	569.85	881.74	1420.86	1875.33
To Owners (Dividend and Retained Earnings)	911.43	904.71	1733.77	2733.26	3862.74
Net Value Added (NVA)	4941.58	5412.92	5982.17	7275.37	8692.74
Distribution Of NVA in %:					
To Workers/Employees (Staff Cost)	32.04	46.66	33.94	33.19	26.63
To Providers of Capital (Loan Interest)	43.29	26.10	22.34	9.71	7.36
To Government (Tax)	6.23	10.53	14.74	19.53	21.57
To Owners (Dividend and Retained Earnings)	18.44	16.71	28.98	37.57	44.44
Net Value Added (NVA)	100.00	100.00	100.00	100.00	100.00

The above analysis indicates that the value addition has increased with the increase in the value of production over time either by using underutilized capacity of production or by enhancing the capacity of production of the company. It is worthwhile to mention that the use of GVA and NVA figures, for the analysis of managerial performance, is preferable to Net Profit because of the fact that the GVA/NVA is the amount available to all participants: the employees, the government, the providers of capital and the owners cooperating in a group for the creation of the company, whereas Net Profit figure is the amount available to the owners only.

Thus if we analyze the performance of the company on the basis of value added figure then the analysis reveals the distributive judgment in respect of all participants but if we analyze the said performance on the basis of Net Profit then it is beneficial to the owners only. In this perspective it may be concluded that for the analysis of performance the value added figure can throw a new light into the performance of an enterprise in addition to Net Profit.

Employees' share of NVA decreased to 27% in 2015-2016. The retained earnings, a portion of owners' share, is very much important for growth and expansion of business. From the table it is found that retained earnings have more or less an increasing trend over the periods under study. From the VAS it is also found that the depreciation has marked a rising trend over the period under study.

It suggests that company should try to maintain a stable increasing trend of distribution to salary/workers along with retention of funds in future after careful consideration of dividend policy in the one hand and market value of the firm on the other, so that it can grow and expand without any difficulties. It is worthwhile to mention that a major portion (i. e. more than 60%) of NVA has been concentrated in two heads i. e. contribution to employees and the owners.

iv) Time Series Analysis

We can fit straight trend line equations by using the time series data from VAS relating to GVA and NVA with the help of least square method, and then from the

straight trend line equations of GVA and NVA we can obtain the estimated figures of GVA and NVA (i. e. Trend Values) for the given time points (i. e. past period) and also for future time points simply by putting the x-values correspond to the different time points (either past or future periods). The trend values relating to GVA and NVA on different given time points are shown respectively in Table-3 and Table-4 below.

Table 6.9: Trend values of GVA for the period of five years

Year	X - Values	GVA	x ²	xy	Trend Values
2011-12	-3	6654.51	9	(19963.53)	6860.99
2012-13	-1	7396.44	1	(7396.44)	7782.55
2013-14	1	8184.11	1	8184.11	8704.10
2014-15	3	9254.13	9	27762.39	9625.66
2015-16	5	11352.18	25	56760.90	10547.22
Total	0	49459.95	70	32254.53	-

Straight trend line equation: $y = 8243.33 + 460.78x$ (1 unit of $x = 6$ months). Using the least squares method fits trend line equation.

Table 6.10: Trend values of NVA for the period of five years

Year	X - Values	NVA	x ²	xy	Trend Values
2011-12	-3	4941.58	9	-14824.74	5182.327714
2012-13	-1	5412.92	1	-5412.92	5895.932571
2013-14	1	5982.17	1	5982.17	6609.537429
2014-15	3	7275.37	9	21826.11	7323.142286
2015-16	5	8692.74	25	43463.7	8036.747143
Total	0	37516.41	70	24976.17	-

Straight trend line equation: $z = 6258.74 + 356.80x$ (1 unit of $x = 6$ months). Using the least squares method fits trend line equation.

The fitted trend line equations relating to GVA and NVA are:

$y = 8243.33 + 460.78x \dots (1)$ and $z = 6258.74 + 356.80x \dots (2)$ respectively.

From the above two equations GVA and NVA figures can easily be estimated for the future periods. Suppose we want to know the GVA and NVA for the year 2016-17. Simply by putting $x=7$ in equation-1 and equation-2 we get the estimated GVA and NVA, from which we can forecast about employees' share, dividend payable

to shareholders, interest payable to lenders, and retained earnings & depreciation reinvested in business unit for further growth and expansion in future. This analysis gives us an idea about the future contribution by the business unit towards different stakeholders of the company and also targeted profit of the company in future.

For appraising the performance and judging the productivity following ratios are considered for analysis:

- i) *Value added to Sales Ratio* reveals the contribution of Company's sales revenue towards the value addition. An effective sales promotion policy would enable a company to enhance the performance of the company in this regard.
- ii) *Net Profit to Value added Ratio* expresses the owner share in the pool. Higher the ratio, higher will be the concentration of income in few hands and vice-versa.
- iii) *Value added to Material Cost* focuses the material productivity of the enterprise. Higher the ratio greater will be the efficiency of the enterprise in terms of utilization of materials.

Table 6.11: Value Added Ratios of Hindustan Petroleum Corporation Limited

Particulars	Set of Ratios	2011-12	2012-13	2013-14	2014-15	2015-16
Value added to Sales Ratio	GVA to Sales	0.035	0.034	0.035	0.043	0.057
	NVA to Sales	0.026	0.025	0.026	0.034	0.044
Net Profit to Value added Ratio	Net Profit to GVA	0.137	0.122	0.212	0.295	0.340
	Net Profit to NVA	0.184	0.167	0.290	0.376	0.444
Value added to Value of Production Ratio	GVA to Material cost	0.038	0.037	0.038	0.047	0.064
	NVA to Material cost	0.028	0.027	0.028	0.037	0.049

v) **Table 6.12: Other Key Financial Ratios:-**

Per Share Ratios	Mar 16	Mar 15	Mar 14	Mar 13	Mar 12
Basic EPS (Rs.)	114.07	80.72	51.20	26.72	26.92
Diluted EPS (Rs.)	114.07	80.72	51.20	26.72	26.92
Cash EPS (Rs.)	192.39	138.99	116.09	85.20	77.41
Book Value [Excl Reval Reserve]/ Share (Rs.)	541.46	472.61	442.82	404.90	387.08
Book Value [Incl Reval Reserve]/ Share (Rs.)	541.46	472.61	442.82	404.90	387.08
Dividend / Share(Rs.)	34.50	24.50	15.50	8.50	8.50
Revenue from Operations/Share (Rs.)	5,296.93	6,094.99	6,585.98	6,098.09	5,260.49
PBDIT/Share (Rs.)	266.75	201.62	183.24	158.23	152.12
PBIT/Share (Rs.)	188.31	143.25	118.29	99.72	101.59
PBT/Share (Rs.)	169.42	122.40	78.87	40.15	35.98
Net Profit/Share (Rs.)	113.94	80.62	51.14	26.69	26.89
Profitability Ratios					
PBDIT Margin (%)	5.03	3.30	2.78	2.59	2.89
PBIT Margin (%)	3.55	2.35	1.79	1.63	1.93
PBT Margin (%)	3.19	2.00	1.19	0.65	0.68
Net Profit Margin (%)	2.15	1.32	0.77	0.43	0.51
Return on Net Worth / Equity (%)	21.04	17.05	11.54	6.59	6.94
Return on Capital Employed (%)	8.84	6.23	4.10	2.74	3.20
Return on Assets (%)	5.48	4.04	2.23	1.18	1.28
Total Debt/Equity (X)	0.79	1.06	2.13	2.36	2.09
Asset Turnover Ratio (%)	254.81	305.88	287.80	271.14	250.79
Liquidity Ratios					
Current Ratio (X)	1.03	1.16	1.13	0.88	0.86
Quick Ratio (X)	0.55	0.62	0.59	0.50	0.41
Inventory Turnover Ratio (X)	14.13	15.93	11.89	12.58	9.17

Per Share Ratios	Mar 16	Mar 15	Mar 14	Mar 13	Mar 12
Dividend Payout Ratio (NP) (%)	30.24	30.35	30.27	31.81	31.58
Dividend Payout Ratio (CP) (%)	17.91	17.60	13.33	9.96	10.96
Earnings Retention Ratio (%)	69.76	69.65	69.73	68.19	68.42
Cash Earnings Retention Ratio (%)	82.09	82.40	86.67	90.04	89.04
Valuation Ratios					
Enterprise Value (Cr.)	41,133.26	39,077.61	42,396.17	41,976.32	37,531.65
EV/Net Operating Revenue (X)	0.23	0.19	0.19	0.20	0.21
EV/EBITDA (X)	4.55	5.72	6.82	7.83	7.28
Market Cap/Net Operating Revenue (X)	0.15	0.11	0.05	0.05	0.06
Retention Ratios (%)	69.75	69.64	69.72	68.18	68.41
Price/BV (X)	1.45	1.38	0.70	0.70	0.78
Price/Net Operating Revenue	0.15	0.11	0.05	0.05	0.06
Earnings Yield	0.15	0.12	0.17	0.09	0.09

3. CASTROL INDIA LIMITED

VAS analysis

The statement showing GVA and NVA figures of CASTROL are shown in Table below. It clearly reveals from the table that figures of NVA have been increasing with a little downfall in between. But the point which is worth noticing is that in last two years materials used has decreased where as there is increase in value added. Company is using its resources very efficiently to make most of its materials used. In year 2011, value of production was 3466.04 and materials used were 2167.26 whereas in 2015 value of production was 3776.61 and materials used were 2079.37.

Table 6.13: Value added statement of Castrol India limited

Particulars	31.12.11	31.12.12	31.12.13	31.12.14	31.12.15
Generation of Value Added:					
Sales of Product and Services	3439.23	3605.38	3677.50	3918.62	3791.42
Change In Stock	26.81	12.00	31.42	-16.81	-14.81
Value Of Production (VP)	3466.04	3617.38	3708.92	3901.81	3776.61
VP Indices	100.00	104.37	107.01	112.57	108.96
Other Income`	73.09	72.18	83.64	48.10	95.87
Gross Output	3539.13	3689.56	3792.56	3949.91	3872.48
Less: Bought In Goods and Services Purchased					
Materials Used	2167.26	2320.79	2317.77	2446.98	2079.37
Other Expenditure	513.23	545.58	534.90	576.55	625.77
Gross Value Added (GVA)	858.64	823.19	939.89	926.38	1167.34
GVA Indices	100.00	95.87	109.46	107.89	135.95
Depreciation Charged	25.11	26.64	30.45	36.13	38.97
Net Value Added (NVA)	833.53	796.55	909.44	890.25	1128.37
NVA Indices	100.00	95.56	109.11	106.80	135.37
Distribution Of NVA:					
To Workers/Employees (Staff Cost)	115.90	128.40	145.97	161.56	176.59
To Providers Of Capital (Loan Interest)	1.68	1.83	1.71	2.38	0.83
To Government (Tax)	234.92	218.93	253.19	251.75	335.69
To Owners (Dividend and Retained Earnings)	481.03	447.39	508.57	474.56	615.26
Net Value Added (NVA)	833.53	796.55	909.44	890.25	1128.37
Distribution Of NVA in %:					
To Workers/Employees (Staff Cost)	13.90	16.12	16.05	18.15	15.65
To Providers Of Capital (Loan Interest)	0.20	0.23	0.19	0.27	0.07
To Government (Tax)	28.18	27.48	27.84	28.28	29.75
To Owners (Dividend and Retained Earnings)	57.71	56.17	55.92	53.31	54.53
Net Value Added (NVA)	100.00	100.00	100.00	100.00	100.00

The above table shows that with the increase in value of production and value added, there is constant increase in value distributed to employees.

There are slight changes in percentage of distribution to employees but value towards employees have been constantly increasing with the increase in value added.

Employees' share of NVA was 13.90% in 2011 and it increased to 15.65% in 2017. The retained earnings, a portion of owners' share, is very much important for growth and expansion of business.

Company is following a strategy in which it is evenly distributing value added among stakeholders. This is a fine approach and believes that a company grows when its stakeholders grow and not only shareholders grow.

i) Time Series Analysis

We can fit straight trend line equations by using the time series data from VAS relating to GVA and NVA with the help of least square method, and then from the straight trend line equations of GVA and NVA we can obtain the estimated figures of GVA and NVA (i. e. Trend Values) for the given time points (i. e. past period) and also for future time points simply by putting the x-values correspond to the different time points (either past or future periods). The trend values relating to GVA and NVA on different given time points are shown respectively in Tables below.

Table 6.14: Trend values of GVA for the period of five years

Year	X - Values	GVA	x ²	xy	Trend Values
2011-12	-3	823.19	9.00	-2469.57	866.01
2012-13	-1	939.89	1.00	-939.89	953.13
2013-14	1	926.38	1.00	926.38	1040.25
2014-15	3	1167.34	9.00	3502.02	1127.37
2015-16	5	1264.70	25.00	6323.50	1214.49
Total	0	5980.14	70.00	3049.24	-

Straight trend line equation: $y = 996.69 + 43.56x$ (1 unit of $x = 6$ months). Using the least squares method fits trend line equation.

Table 6.15: Trend values of NVA for the period of five years

Year	X - Values	GVA	x ²	xy	Trend Values
2011-12	-3	796.55	9.00	-2389.65	838.38
2012-13	-1	909.44	1.00	-909.44	921.45
2013-14	1	890.25	1.00	890.25	1004.51
2014-15	3	1128.37	9.00	3385.11	1087.58
2015-16	5	1219.74	25.00	6098.70	1170.65
Total	0	5777.88	70.00	2907.32	-

Straight trend line equation: $z = 962.98 + 41.53x$ (1 unit of $x = 6$ months). Using the least squares method fits trend line equation.

The fitted trend line equations relating to GVA and NVA are:

$y = 996.69 + 43.56x \dots (1)$ and $z = 962.98 + 41.53x \dots (2)$ respectively.

From the above two equations GVA and NVA figures can easily be estimated for the future periods. Suppose we want to know the GVA and NVA for the year 2016-17. Simply by putting $x=7$ in equation-1 and equation-2 we get the estimated GVA and NVA, from which we can forecast about employees' share, dividend payable to shareholders, interest payable to lenders, and retained earnings & depreciation reinvested in business unit for further growth and expansion in future. This analysis gives us an idea about the future contribution by the business unit towards different stakeholders of the company and also targeted profit of the company in future.

ii) Ratio Analysis

For appraising the performance and judging the productivity following ratios are considered for analysis:

- i) *Value added to Sales Ratio* reveals that company is making a huge percentage of value added with respect to sales in this sector. This ratio have also increased over the time.
- ii) *Net Profit to Value added Ratio* reveals that the company is maintaining a high amount to be held for expansion. This might be reason for company's high Value added to sales ratio above.
- iii) *Value added to Materials Cost* focuses the material productivity of the enterprise. High ration in this case means that company is expending less in indirect expenses and more focused upon productivity.

Table 6.16: Value added Ratios of Castrol India limited

Particulars	Set of Ratios	2011-12	2012-13	2013-14	2014-15	2015-16
Value added to Sales Ratio	GVA to Sales	0.250	0.228	0.256	0.236	0.308
	NVA to Sales	0.242	0.221	0.247	0.227	0.298
Net Profit to Value added Ratio	Net Profit to GVA	0.560	0.543	0.541	0.512	0.527
	Net Profit to NVA	0.577	0.562	0.559	0.533	0.545
Value added to Value of Production Ratio	GVA to Material cost	0.396	0.355	0.406	0.379	0.561
	NVA to Material cost	0.385	0.343	0.392	0.364	0.543

Table 6.17: Other Key Financial Ratios

Per Share Ratios	Dec 16	Dec 15	Dec 14	Dec 13	Dec 12
Basic EPS (Rs.)	13.65	12.44	9.60	10.28	9.05
Diluted EPS (Rs.)	13.65	12.44	9.60	10.28	9.05
Cash EPS (Rs.)	14.56	13.23	10.33	10.90	9.58
Book Value [Excl Reval Reserve]/ Share (Rs.)	12.05	11.64	10.04	15.19	13.13
Book Value [Incl Reval Reserve]/ Share (Rs.)	12.05	11.64	10.04	15.19	13.13
Dividend / Share(Rs.)	11.00	9.00	7.50	7.00	10.50
Revenue from Operations/Share (Rs.)	68.15	66.69	68.59	64.29	63.10
PBDIT/Share (Rs.)	22.08	20.03	15.46	15.59	14.05
PBIT/Share (Rs.)	21.17	19.24	14.73	14.98	13.51
PBT/Share (Rs.)	21.14	19.23	14.69	15.40	13.47
Net Profit/Share (Rs.)	13.65	12.44	9.60	10.28	9.05
Profitability Ratios					
PBDIT Margin (%)	32.40	30.04	22.54	24.25	22.26
PBIT Margin (%)	31.07	28.85	21.48	23.29	21.40
PBT Margin (%)	31.02	28.83	21.41	23.95	21.35
Net Profit Margin (%)	20.02	18.65	13.98	15.99	14.33

Per Share Ratios	Dec 16	Dec 15	Dec 14	Dec 13	Dec 12
Return on Net Worth / Equity (%)	113.28	106.88	95.52	67.68	68.91
Return on Capital Employed (%)	110.67	104.18	92.96	66.50	67.68
Return on Assets (%)	35.76	37.02	31.81	31.49	30.23
Asset Turnover Ratio (%)	178.58	198.48	227.39	196.87	210.93
Liquidity Ratios					
Current Ratio (X)	1.21	1.24	1.18	1.53	1.43
Quick Ratio (X)	0.94	0.96	0.81	1.09	1.05
Inventory Turnover Ratio (X)	9.80	10.83	9.28	8.50	9.88
Dividend Payout Ratio (NP) (%)	80.60	72.34	78.16	68.07	77.38
Dividend Payout Ratio (CP) (%)	75.57	68.03	72.63	64.22	73.03
Earnings Retention Ratio (%)	19.40	27.66	21.84	31.93	22.62
Cash Earnings Retention Ratio (%)	24.43	31.97	27.37	35.78	26.97
Valuation Ratios					
Enterprise Value (Cr.)	17,993.66	21,158.11	24,365.79	14,724.78	14,168.24
EV/Net Operating Revenue (X)	5.34	6.42	7.18	4.63	4.54
EV/EBITDA (X)	16.48	21.36	31.86	19.10	20.39
Market Cap/Net Operating Revenue (X)	5.58	6.63	7.31	4.82	4.72
Retention Ratios (%)	19.39	27.65	21.83	31.92	22.61
Price/BV (X)	31.58	37.97	49.92	20.39	22.71
Price/Net Operating Revenue	5.58	6.63	7.31	4.82	4.72
Earnings Yield	0.04	0.03	0.02	0.03	0.03

4. APAR INDUSTRIES LIMITED

The statement showing GVA and NVA figures of APAR are shown in Table below. In Table, it is found that both GVA and NVA figures have increased over time (i. e. from 2010-11 to 20- 2016) except in the year 2013-14 and 2014-15. But after that GVA and NVA figures reached the highest in 2015-16. The distribution of Net Value Added is also clearly shown in the table over the period of six years. The GVA and NVA indices (taking 100 in the year 2011-12 as base) reveal a continuous increasing trend in Value Added throughout the period under study. As shown in table, GVA and NVA is almost double in last year as compared to base year. We have taken information from published and audited financial statements available on site of the company. Contribution to Government varies due to MAT provisions as applicable.

Table 6.18: Value Added Statement of Apar Industries limited

Particulars	31.03.12	31.03.13	31.03.14	31.03.15	31.03.16
Generation of Value Added:					
Sales of Product and Services	3772.84	4895.09	4953.82	5498.26	5482.83
Change In Stock	61.49	19.70	7.72	89.79	-20.54
Value Of Production (VP)	3834.33	4914.79	4961.54	5588.05	5462.29
VP Indices	128.26	164.40	165.96	186.92	182.71
Other Income	0.54	7.70	4.47	8.37	3.37
Gross Output	3834.87	4922.49	4966.01	5596.42	5465.66
Less: Bought In Goods and Services Purchased					
Materials Used	3180.23	3946.89	4049.69	4563.01	4276.70
Other Expenditure	415.72	625.32	581.62	714.07	696.11
Gross Value Added (GVA)	238.92	350.28	334.70	319.34	492.85
GVA Indices	106.80	156.58	149.62	142.75	220.32
Depreciation Charged	21.28	23.86	26.89	31.04	37.69
Net Value Added (NVA)	217.64	326.42	307.81	288.30	455.16
NVA Indices	103.64	155.44	146.58	137.29	216.75
Distribution Of NVA:					
To Workers/Employees (Staff Cost)	43.94	51.81	59.17	69.98	90.69
To Providers Of Capital (Loan Interest)	114.13	134.31	145.81	150.09	151.56
To Government (Tax)	0.25	38.14	34.04	20.37	55.93
To Owners (Dividend and Retained Earnings)	59.32	102.16	68.79	47.86	156.98
Net Value Added (NVA)	217.64	326.42	307.81	288.30	455.16
Distribution Of NVA in %:					
To Workers/Employees (Staff Cost)	20.19	15.87	19.22	24.27	19.92
To Providers Of Capital (Loan Interest)	52.44	41.15	47.37	52.06	33.30
To Government (Tax)	0.11	11.68	11.06	7.07	12.29
To Owners (Dividend and Retained Earnings)	27.26	31.30	22.35	16.60	34.49
Net Value Added (NVA)	100.00	100.00	100.00	100.00	100.00

The above table shows that company is consistently increasing the share of employees and providers of capital along with the increase in sales and thus resulting in growth of all. To manage this, company is adjusting retained earnings and dividend held for expansion so that. The above analysis indicates that the value addition has increased with the increase in the value of production over time either by using underutilized capacity of production or by enhancing the capacity of production of the company.

Thus if we analyze the performance of the company on the basis of value added figure, it reveals that company is heading towards to get more percentage of benefit with less increase in cost of production and distributing evenly the NAV earned.

Employees' share of NVA was 20.19 in 2011-12 and it increased to 20% in 2015-2016. The retained earnings, a portion of owners' share, is very much important for growth and expansion of business. From the table it is found that retained earnings is not constant and has variations so as to adjust the distribution to others. From the VAS it is also found that the depreciation has marked a rising trend over the period under study.

It suggests that company should try to maintain a stable increasing trend of retained earnings along with distribution to others as it is very essential for the growth of the company. Retained earnings help in expansion of company and higher future maintainable profits.

vi) Time Series Analysis

We can fit straight trend line equations by using the time series data from VAS relating to GVA and NVA with the help of least square method, and then from the straight trend line equations of GVA and NVA we can obtain the estimated figures of GVA and NVA (i. e. Trend Values) for the given time points (i. e. past period) and also for future time points simply by putting the x-values correspond to the different time points (either past or future periods). The trend values relating to GVA and NVA on different given time points are shown respectively in Tables below.

Table 6.19: Trend values of GVA for the period of five years

Year	X - Values	GVA	x ²	xy	Trend Values
2011-12	-3	238.92	9.00	-716.76	259.29
2012-13	-1	350.28	1.00	-350.28	304.18
2013-14	1	334.70	1.00	334.70	349.08
2014-15	3	319.34	9.00	958.02	393.98
2015-16	5	492.85	25.00	2464.25	438.88
Total	0	1959.79	70.00	1571.43	-

Straight trend line equation: $y = 326.63 + 22.45x$ (1 unit of $x = 6$ months). Using the least squares method fits trend line equation.

Table 6.20: Trend values of NVA for the period of five years

Year	X - Values	GVA	x ²	xy	Trend Values
2011-12	-3	217.64	9.00	-652.92	240.06
2012-13	-1	326.42	1.00	-326.42	280.61
2013-14	1	307.81	1.00	307.81	321.16
2014-15	3	288.30	9.00	864.90	361.71
2015-16	5	455.16	25.00	2275.80	402.26
Total	0	1805.32	70.00	1419.24	-

Straight trend line equation: $z = 300.89 + 20.27x$ (1 unit of $x = 6$ months). Using the least squares method fits trend line equation.

The fitted trend line equations relating to GVA and NVA are:

$y = 326.63 + 22.45x \dots$ (1) and $z = 300.89 + 20.27x \dots$ (2) respectively.

From the above two equations GVA and NVA figures can easily be estimated for the future periods. Suppose we want to know the GVA and NVA for the year 2016-17. Simply by putting $x=7$ in equation-1 and equation-2 we get the estimated GVA and NVA, from which we can forecast about employees' share, dividend payable to shareholders, interest payable to lenders, and retained earnings & depreciation reinvested in business unit for further growth and expansion in future. This analysis gives us an idea about the future contribution by the business unit towards different stakeholders of the company and also targeted profit of the company in future.

vii) Ratio Analysis

For appraising the performance and judging the productivity following ratios are considered for analysis:

- i) *Value added to Sales Ratio* mentioned below reveals that value addition as compared to sales have increased over the time. Company is making use of available resources more efficiently and effectively as compared to the base year. It has increased from 0.075 in base year to 0.090 in the last year.
- ii) *Net Profit to Value added Ratio* is more or less the contribution towards owner and funds held for expansion in the company.
- iii) *Value added to Material Cost* is the amount distributed towards outside parties as compared to amount held for stakeholders in value addition. Company is doing good in this regard since it has increased this ratio over the time.

Table 6.21: Value added ratios of Apar Industries limited.

Particulars	Set of Ratios	2011-12	2012-13	2013-14	2014-15	2015-16
Value added to Sales Ratio	GVA to Sales	0.063	0.072	0.068	0.058	0.090
	NVA to Sales	0.058	0.067	0.062	0.052	0.083
Net Profit to Value added Ratio	Net Profit to GVA	0.248	0.292	0.206	0.150	0.319
	Net Profit to NVA	0.273	0.313	0.223	0.166	0.345
Value added to Value of Production Ratio	GVA to Material cost	0.075	0.089	0.083	0.070	0.115
	NVA to Material cost	0.068	0.083	0.076	0.063	0.106

Table 6.22: Other Key Financial Ratios

Per Share Ratios	Mar 16	Mar 15	Mar 14	Mar 13	Mar 12
Basic EPS (Rs.)	40.78	12.44	17.88	26.56	15.55
Diluted EPS (Rs.)	40.78	12.44	17.88	26.56	15.55
Cash EPS (Rs.)	50.56	20.49	24.87	32.76	22.40
Book Value [Excl Reval Reserve]/ Share (Rs.)	198.56	165.43	157.73	145.62	130.23
Book Value [Incl Reval Reserve]/ Share (Rs.)	198.56	165.43	157.73	145.62	130.23
Dividend / Share(Rs.)	6.50	3.50	5.25	5.25	4.00
Revenue from Operations/Share (Rs.)	1,301.29	1,301.55	1,165.38	1,178.11	960.34
PBDIT/Share (Rs.)	93.25	64.83	71.85	78.79	54.75
PBIT/Share (Rs.)	83.46	56.77	64.86	72.58	48.83
PBT/Share (Rs.)	55.30	17.72	26.73	36.47	16.56
Net Profit/Share (Rs.)	40.77	12.43	17.88	26.56	16.49
Profitability Ratios					
PBDIT Margin (%)	7.16	4.98	6.16	6.68	5.70
PBIT Margin (%)	6.41	4.36	5.56	6.16	5.08
PBT Margin (%)	4.24	1.36	2.29	3.09	1.72
Net Profit Margin (%)	3.13	0.95	1.53	2.25	1.71
Return on Networth / Equity (%)	20.53	7.51	11.33	18.23	12.66
Return on Capital Employed (%)	18.20	6.25	9.70	16.46	10.54
Return on Assets (%)	5.92	1.67	2.35	3.18	2.14
Total Debt/Equity (X)	0.42	0.76	1.28	1.74	2.06
Asset Turnover Ratio (%)	189.21	175.88	153.27	141.36	124.66
Liquidity Ratios					
Current Ratio (X)	1.22	1.15	1.13	1.10	1.14
Quick Ratio (X)	0.79	0.70	0.67	0.81	0.84
Inventory Turnover Ratio (X)	6.55	5.39	4.44	6.12	5.19
Dividend Payout Ratio (NP) (%)	15.93	28.14	29.36	19.77	25.94
Dividend Payout Ratio (CP) (%)	12.85	17.07	21.11	16.02	19.09
Earnings Retention Ratio (%)	84.07	71.86	70.64	80.23	74.06
Cash Earnings Retention Ratio (%)	87.15	82.93	78.89	83.98	80.91
Valuation Ratios					
Enterprise Value (Cr.)	2,012.79	1,868.59	1,107.55	358.38	724.58
EV/Net Operating Revenue (X)	0.40	0.37	0.25	0.08	0.21
EV/EBITDA (X)	5.61	7.49	4.01	1.18	3.68
MarketCap/Net Operating Revenue (X)	0.35	0.28	0.12	0.09	0.17
Retention Ratios (%)	84.06	71.85	70.63	80.22	74.05
Price/BV (X)	2.33	2.24	0.92	0.74	1.24
Price/Net Operating Revenue	0.35	0.28	0.12	0.09	0.17
Earnings Yield	0.09	0.03	0.12	0.24	0.10

6.6 Overview of Distribution

**Table 6.23: Comparison of Distribution of NAV By Each Company
Under Study-Last Year**

Last Year	Hindustan Petroleum	APAR Industries	Castrol	Indian Oil
To Workers/Employees (Staff Cost)	26.63	19.92	14.15	28.84
To Providers of Capital (Loan Interest)	7.36	33.30	0.12	11.33
To Government (Tax)	21.57	12.29	30.40	20.55
To Owners (Dividend and Retained Earnings)	44.44	34.49	55.33	39.28

**Table 6.24: Comparison of Distribution of NAV By Each Company
Under Study - Base Year**

Base Year	Hindustan Petroleum	Apar Industries	Castrol	Indian Oil
To Workers/ Employees (Staff Cost)	38.03	11.92	13.90	35.35
To Providers of Capital (Loan Interest)	17.12	12.14	0.20	14.68
To Government (Tax)	15.33	25.53	28.18	9.07
To Owners (Dividend and Retained Earnings)	29.53	50.41	57.71	40.90

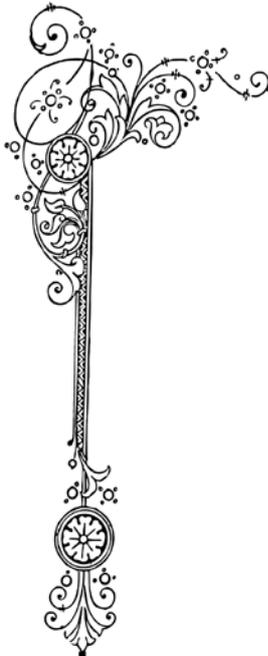
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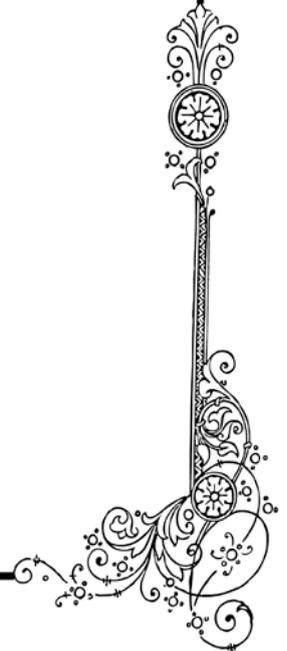
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CHAPTER 7:

Conclusions and Suggestions



CHAPTER-7

CONCLUSIONS AND SUGGESTIONS

The present study adequately deals with the appraisal of performance of the Lubricant oil companies in India. The financial appraisal is a vital unit to measure the performance of firms. Therefore, financial statements are prepared to serve the objective.

“The primary focus of financial reporting is information about an enterprise’s performance provided by measures of earnings and its components.”

Rrich A. Helfert rightly remarks, “The measurement of business performance is more complex and difficult, since it must deal with the effectiveness with which capital is employed, the efficiency and profitability of operations, and the value and safety of various claims against the business”

The areas of financial appraisal are mainly, profitability, working capital, measurement of social performance, etc. in which financial appraisal is generally applied to assess and measure the efficiency of the business in that particular area. The objectives of financial appraisal are that it encompasses everything involved in managing the enterprise’s financial resources. it involves the activities such as:

- (1) Financial planning: financial planning is assessing your business’ financial situation, determining its objectives and formulating financial strategies of how to achieve them.
- (2) Budgeting and forecasting: budgeting and forecasting is essential for controlling the financial affairs of a concern.
- (3) Financial control: financial control devices generally used by management are (i) Ratio analysis (ii) Cost control (iii) Internal audit (iv) standard costing etc.
- (4) Estimating financial requirements: Scope of finance function includes estimating the financial requirements of the enterprise. Finance is required for both long-term as well as short-term purposes. Necessity of finance arises not only at the commencement of business but also during the period

business activities are continued. Shortage of funds may ruin the business. Thus, the proper estimation of requirement of funds is necessary.

- (5) Cash and treasury management: cash and treasury management is also covered under the scope of financial appraisal. Cash and treasury management includes assessing the needs of money and ensuring that the enterprise has the money when it is needed.
- (6) Deciding optimal capital structure: Capital structure refers to the mix or proportion of different sources of finance in the total capitalisation of the company. The capital structure is said to be an optimal capital structure when a company selects such a mix of debt and equity, which minimises the overall cost of capital and maximises the wealth of the shareholders.
- (7) Choosing an appropriate source of finance: funds can be procured from different sources. Finance function aims at selecting the most appropriate source of finance.

The techniques which are commonly used for the financial appraisal are ratio analysis, trend analysis, comparative statement analysis, common-size statement analysis etc. statistical techniques are also used for the purpose and they generally include the average, index number etc. Diagrams, graphs and charts are also prepared and made use of.

This study is conducted with a view to exploring the financial appraisal of the Lubricant oil companies in India. The lubricant industry has played an important and multidimensional role to uplift and take our country out of the lamentable state we had been experiencing just after independence. Our progress and around prosperity owe a great deal to the multifaced role performed by some of the very important oil companies. The aim is to know how the oil companies have utilised their resources and to appraise the performance of profitability, working capital and measurement of social performance and their contribution to the upliftment of the society.

For the present study, four companies of oil industry which are mainly engaged in manufacturing of Lubricant oil will be selected on the basis of capital

employed and a period of five years (from 2011-12 to 2015-2016) will be taken for appraisal of these companies. The names of these companies are:

1. INDIAN OIL CORPORATION LTD,
2. HINDUSTAN PETROLEUM CORPORATION LTD,
3. CASTROL INDIA LIMITED INDIA LTD,
4. APAR INDUSTRIES LIMITED LTD.

The financial appraisal of the selected Lubricant oil companies covered in this study is fully examined. The conclusions drawn and suggestions attempted provides practical guidance to the managements of the companies to initial action for improvement of performance of their companies.

The study can be helpful to the management of these selected lubricant oil companies, financial managers, investors, workers and consumers in taking decisions related to their own spheres of interest.

- For the financial appraisal of the companies, the data has been collected primarily from the annual reports of the selected companies and these are supplemented from other data collected from personal interviews and contacts. The collected data is recasted and presented in the form of condensed balance sheet and income statement. For evaluation, the performance techniques of financial analysis and interpretation such as ratio analysis, trend analysis, comparative statement analysis and common size statement analysis shall be used.
- All the statements and ratios have been analysed and interpreted, and conclusions have been drawn. To arrive at the conclusion, inter firm comparisons have been made and for evaluating the performance, techniques of financial and statistical analysis have been used. Few diagrams and graphs have also been used. At the end, on the basis of conclusion, some suggestions have been made to improve the profitability of the selected companies.

It will not be out of order to point out here that this analysis of the selected oil companies is subject to a number of constraints and limitations. Since the

companies do not give separate product wise data on sales, income, profits and other key variables, the results are aggregative in nature and may not necessarily reflect the working of these selected lubricant oil companies.

The companies under the study refused to provide detailed information on various items given in a summarised form in the annual report. They also refused to provide budgets and standards fixed by them. However, the study has been made after having got the desired and useful information through our best possible efforts.

All financial data relating to the study have been expressed in crores of rupees rounded upto two decimal place. The principal financial statements are the income statements and balance sheets of a business enterprise. Balance sheet is a statement of assets and liabilities of a company at a particular point of time, while income statement shows the results of trading and non-trading operations during a certain period of time. Financial statements have been redesigned, revised and rearranged for analysing the data all the statements and ratios have been analysed, interpreted and conclusions have been drawn. To arrive at objective conclusions and findings, statistical techniques have also applied on the basis of the conclusions drawn, various suggestions have been made wherever some improvement is called for.

7.1 PROFITABILITY

The present study has been made in order to examine through 'profitability ratios' the appraisal of profitability of the lubricant oil companies in India and also of the individual Lubricant oil companies.

The profitability ratios which have been discussed in this chapter are Gross Profit ratios, Operating Profit Ratios, Net profit Ratio, Expense as composition to sales ratio, return on capital employed, return on net worth and a study of earning per equity share of the companies under the study has also been made.

The study shows that as regards, Indian oil, the gross profit ratio ranged from 3.40 percent in 2011-12 to 4.33 percent in 2015-16. It showed a decreasing trend in the year 2012-13 and 2014-15 but again it showed an increasing trend in the year

2015-16. The average gross profit ratio of this company is 2.60 percent. The management is very much interested in the calculation of this ratio.

As regards to Hindustan Petroleum Limited, the company showed its gross profit ratio from 1.35 in 2011-12 to 2.92 in the year 2015-16. The company showed fluctuating change in gross profit ratio in the last five years but showed an increasing trend in the year 2015-16. The average gross profit ratio of the company is 1.7 which shows company needs to grow up more as regards to gross profit ratio.

As regards to Castrol India limited, the gross profit ratio is 19.09 in the year 2011 to 28.48 in the year 2015-16. The company has shown an increasing trend in the gross profit ratio in the last five years. The average gross profit ratio of the company is 22.84 which is very much favourable and shows that the company has good efficiency in producing goods.

As regards to Apar Industries Limited, the gross profit ratio ranged from 5.06 in the year 2011-12 to 6.34 in the year 2015-16. It showed a fluctuating trend till the year 2014-15 but it showed an increasing trend in the year 2015-16. The average gross profit ratio of the company in the last five years is 5.40 which is satisfactory as compared to Indian oil and Hindustan petroleum.

As regards to Gross Profit Ratio, Castrol India limited showed a good profitability followed by Apar Industries Limited, Indian Oil and Hindustan Petroleum respectively.

In Indian oil, net profit ratio ranged from .99 in 2011-12 to 2.96 in 2015-16. It showed an increasing trend in 2012-13 as the net profit ratio increased to 1.11. But later it again showed an increasing trend in the year 2013-14 and the net profit reached to 1.48. The net profit ratio in the year 2014-15 was quite unsatisfactory which is 1.20 but in 2015-16 it increased to 2.96. The average net profit ratio of this company in the last five years is 1.54. The overall net profit ratio in the last five years was quite satisfactory.

In Hindustan Petroleum Corporation Ltd, the net profit ratio ranged from .51 in the year 2011-12 to 2.15 in the year 2015-16. It showed an increasing trend, this ratio was satisfactory in the last two years. In this company the net profit increased to 2.15 in 2014-15. The overall net profit ratio of last five years on an average is quite unsatisfactory.

Now coming to the private sector lubricating oil companies, Castrol India limited India Ltd showed a net profit which ranged from 14.33 in the year 2011-12 to 20.02 in the year 2015-16. But later in the year 2013-14 it showed a decreasing trend of 13.98 percent but again it showed an increasing trend of 18.65 percent in 2014-15. The average net profit in the last five years is 16.59 which is very much satisfactory.

In Apar Industries Limited, the net profit ranged from 1.71 percent in the year 2011-12 to 3.13 percent in the year 2015-16. The net profit increased to 2.25 percent in the year 2012-13. But later on it showed a decreasing trend as net profit decreased in the last two years as 1.53 percent in the year 2013-14 and 0.95 percent in the year 2014-15. The overall Net profit ratio of Apar Industries Limited is quite satisfactory.

During the years 2011-12 to 2015-16, the ratio of operating profit to operating assets in Indian Oil under study registered a decreasing trend in earlier years, but it had showed an increasing trend in later years. This ratio which was 4.62 percent in 2011-12 decreased to 2.32 percent in 2015-16. During later years the ratio improved significantly and still it was much better than that of the average of 9.33 percent.

On the basis of the above, it can be inferred that the ratio had shown an increasing trend which indicates high profitability in Indian Oil under study.

In Hindustan Petroleum, the ratio varied from 2.31 percent in 2011-12 to 4.40 in 2015-16. The average ratio in this company was lower than that of Indian Oil during most of the years. On the basis of the average ratio it was the lowest. On the basis of the above table, it can be inferred that the ratio had marked a falling trend in

earlier years which indicates low profitability, but on the result of the year 2015-16 a good future can be expected.

In Castrol India limited as Table 4. Shows the ratio of operating profit to operating assets continuously increased during the study period. The ratio varied from 19.94 percent in 2011-12 to 29.81 percent in 2015-16 . The ratio in this company was higher than that of Indian Oil and Hindustan petroleum under the study. On the basis of average ratio which is 23.92 percent , it was the highest. On the whole, it can be inferred that the ratio had shown an increasing trend which indicates high profitability in the company. On the whole, the profitability of the company was the best amongst under study.

In Apar Industries Limited, the table shows that the ratio of operating profit to operating assets was towards a decline in 2014-15, but this decline trend was checked up during 2015-16 which is 29.81. This ratio which was 5.68 in 2011-12 decreased to 4.81 in 2014-15. During later years the ratio improved in this company was lower than Castrol India limited.

On the whole, it can be inferred that the ratio had a falling trend in earlier years which indicates low profitability in the company. But on the basis of the result of the later years, a good future can be expected.

As regards to Operating Profit Ratio, Castrol India limited showed a good profitability followed by, Indian Oil, Apar Industries Limited and Hindustan Petroleum respectively.

As regards to expenses as composition to sales Indian Oil ranged from 4.97 percent in 2011-12 to 3.97 percent in 2015-16 where as Hindustan Petroleum Corporation Limited ranged from 4.32 percent in 2011-12 to 1.00 percent in 2015-16. Coming to private sector, Castrol India limited ranged from. 67 percent in 2011-12 to. 42 percent in 2015-16 where as Apar Industries Limited ranged from 28.53 percent in 2011-12 to 33.43 percent in 2015-16. Apar Industries Limited showed in overall increasing trend in this ratio which is not beneficial for the company in the

future. The average percent of Apar Industries Limited is 31.73 percent which is highest as compared to other three companies under the study.

As regard to expenses, Apar Industries Limited showed higher expenditure followed by Indian Oil, Hindustan Petroleum Limited and Castrol India limited respectively.

As regards to return on capital employed, Indian Oil showed a trend of 13.08 percent in 2011-12 to 14.98 percent in 2015-16. In the earlier years it showed a decreasing trend but significantly it increased to 14.98 percent in 2015-16 which is quite satisfactory. The average percentage is 10.82 percent which is lowest among other three companies.

Hindustan Petroleum limited ranged from 8.48 percent in 2011-12 to 19.41 percent in 2015-16. It showed a decreasing trend in 2012-13 which is 7.31 percent. But its return on capital employed increased in later years due to which good future can be expected. The average percentage of this company is 11.68 percent which is less than private sector companies' i. e Castrol India limited and Apar Industries Limited.

Now coming to private sector companies, Castrol India limited ranged from 102.91 percent in 2011-12 to 175.77 percent in 2015-16. The overall percentage change in this company is increasing at a very good rate. The average return on capital employed of this company is 137.85 which is best among all the other companies under the study.

As compared to return on capital employed, Apar Industries Limited ranged from 12.21 percent in 2011-12 to 29.51 percent in 2015-16. Among the last five years taken under the study, Apar Industries Limited showed a fluctuating trend but in the last few years it showed an increasing trend which shows high profitability in the company.

The higher the return on Net worth, the better it is for the company as it shows that the objectives of the company have been achieved successfully.

Comparing the averages of the return on net worth of the companies in the last five years taken under the study, Castrol India limited showed a higher increasing trend of 68.91 percent in 2011-12 to 113.28 percent in 2015-16 with an average of 90.45 percent followed by Apar Industries Limited with 14.05 percent, Hindustan Petroleum Corporation limited with 12.63 percent and Indian Oil with 9.49 percent respectively.

As regards to Earning Per Share, Indian Oil showed an increasing trend in the last five years which ranged from 16.29 percent in 2011-12 to 42.83 percent in 2015-16. Though the company had a declining trend in 2014-15 but it picked up in 2015-16 to 42.83 percent. The overall earning per share in the last five years is good which shows the better performance and prospects of the company.

Hindustan Petroleum Corporation limited had an increasing trend of earning per share which ranged from 26.92 percent in 2011-12 to 114.07 percent in 2015-16. The company had a very good earnings per share capacity in all the last five years taken under the study. The company had an average earning per share as 59.92 percent which is highest among the other three companies taken under the study.

In private sector Lubricant oil companies taken under the study Castrol India limited had a low earning per share in the last five years as compared to other three lubricant oil companies taken under the study. The company showed a range of 9.05 percent in 2011-12, 10.28 percent in 2012-13, 9.60 percent in 2013-14, 12.44 percent in 2014-15 and 13.65 percent in 2015-16 with an average of 11 percent.

The other private sector company taken in the study i. e. Apar Industries Limited Industry showed a high earning per share performance as compared to Castrol India limited. The company showed a fluctuating trend in all the five years taken under the study with a increasing trend of 40.78 percent in 2015-16 with an average of 22.82 percent which shows a better performance of the company.

Suggestions: In order to improve the gross profit and net profit of the individual companies and all the companies taken under study, it has been suggested that

Hindustan Petroleum Corporation limited should try to reduce the cost of goods sold while Apar Industries Limited should take steps to control the operating expenses.

In the light of above discussion it is also suggested that Hindustan Petroleum Corporation Limited should undertake cost control measures so that increased net profits before interest and taxes of the company might enhance the return on net capital employed.

In order to improve the earning per share it has been suggested that Castrol India limited and Apar Industries Limited should try to reduce the cost of goods sold and operating expenses, try to get more profits after taxes and preference dividend.

7.2 APPRAISAL OF WORKING CAPITAL PERFORMANCE

The study of working capital performance and the utilisation and management of working capital were analysed through different ratios.

On an average Indian oil corporation limited held a current ratio of 2.61 times. It implies that for every rupee of current liability 2.16 rupees of current assets are available to meet them. In other words it can be said that the current assets are more than two times of the current liabilities. In 2011-12 it was 1.00 times which increased to 9.09 times in 2015-16.

During the whole of the study period from 2011-12 to 2015-16 the current ratio in Hindustan Petroleum Corporation limited was below the norm. It varied from. 86 times in 2011-12 to 1.02 times in 2015-16. On an average the current ratio in the company was. 99 times. It implies heavy reliance on short term financing, and so from the view point of creditors the liquidity of the company cannot be considered satisfactory. A slight decline in the value of current assets in the year 2015-16 may adversely affect the ability of the company. More investment in current assets will give a sufficient cushion to the creditors of the company and the company will be able to meet its obligations in full.

In Castrol India limited the current ratio was also below the norms in most of the years. In no year (taken under the study) the ratio was as per the norms. It varied

from 1.45 times in 2011-12 to 1.24 times in 2015-16. On an average the company held the current ratio of 1.35 which was below the norm. Hence the company is advised to enhance its current ratio.

In Apar Industries Limited, the trend of this ratio was also towards an increase. But on an average the company held the ratio of 1.14 times which was below the standard norm. The company's current ratio varied from 1.13 times in 2011-12 to 1.22 times in the year 2015-16. Hence the company is advised to keep its current ratio within reasonable limits.

It may not be out of place to mention here that current ratio may also indicate the financing of working capital. If the current ratio of a firm is 2:1, it will indicate that 50 percent current assets have been financed by long term sources. If the current ratio is more or less than 2:1, the percentage of financing the current assets through long term sources will also be more or less than 50 percent.

On an average, if we look at all the lubricant oil companies (taken under the study) except Indian Oil Corporation limited, these companies indicate that more than 50 percent current assets have been financed through long term sources. Except Indian oil Corporation limited, all that companies under the study appear to have followed the policy of financing the current assets through long term sources by more than fifty percent.

There was a fluctuating trend in the acid-test ratio of the lubricant oil companies taken under the study.

The acid –test ratio in Indian Oil Corporation Limited fluctuated from. 55 times in 2011-12 to. 55 times in 2015-16 and had a fluctuating trend. During all the years (taken under the study) the ratio was below the norms. On an average the company held the ratio of. 54 times which was less than norm. On the whole the liquid position of the company during the last five years was quite unsatisfactory and the company is advised to improve this fluctuating trend.

In case of Hindustan Petroleum Corporation limited, on an average the company held the acid test ratio of. 51 times, which was lower than other companies under the study but higher than Apar Industries Limited. During the whole of the study period the ratio of the company was fluctuating. Hence the liquidity position of the company was not considerably good but better than Apar Industries Limited. The ratio varied from. 47 times in 2011-12 to 1.52 times in 2013-14 and. 47 times in 2015-16. The reason behind the decreasing trend was comparatively low decrease in quick assets as compared to steep decline in current liabilities.

The acid-test ratio in Castrol India limited fluctuated from 1.06 times in 2011-12 to 1.08 times in 2013-14 to. 96 times in 2015-16. During the early years the ratio was below the norms except in 2011-12 and 2013-14. On an average the company held the ratio of. 92 times which was less than the norm. On the whole, the liquidity position of the company during the last three years except in 2013-14 was quite unsatisfactory and the company is well advised to improve this trend.

In case of Apar Industries Limited, on an average the company held the acid test ratio of. 37 times, which was lower among all the companies taken under study. During the whole of the study period, the ratio of the company was lower than the norm. Hence, the liquidity position of the company was considerably unsatisfactory. The ratio varied from. 30 times in 2011-12 to. 42 times in 2015-16. The liquidity position of the company is therefore, threatened, and there has been an acute shortage of working capital throughout the study period. The decline in this ratio was the effect of increase in current liabilities while decrease in quick assets.

On the whole it can be inferred from the above discussion that except Indian Oil Corporation Limited, all the companies taken under the study held on an average quite unsatisfactory acid-test ratio.

A look at the data, it is clear that there was a fluctuating trend in the working capital turnover ratio of all the companies taken under the study.

In the case of Indian Oil Corporation Limited, on an average, the company held the ratio of -157.65 was the lowest among the companies taken under the study.

It shows that there was an excessive investment in working capital and the company had followed the policy of under trading. Had the company followed a sound financial policy, the turnover of working capital would have been much better.

The working capital turnover ratio of Hindustan Petroleum limited during the period of study fluctuated widely from -30.21 times in 2011-12 to 259.22 times in 2015-16. The ratio during the early years was lower than the later years. During the later years the working capital of the company increased substantially while on the other hand sales increased and this result in higher ratio of 259 times in the year 2015-16. The ratio in this company was higher than that of the rest of the companies on the whole, the company appears to have utilised its working capital during later years efficiently, though the working capital position of the company during 2012-13 was poor.

In Castrol India limited, the working capital turnover ratio was towards increase in all the years taken under the study except in the year 2013-14 which was 7.08 times. During the year 2014-15 this ratio was highest to 19.28 times. There is a need to increase in the sales without a corresponding increase in working capital.

Apar Industries Limited held a reasonable and satisfactory turnover ratio during the last five years of the study period. The average working capital turnover ratio was 14.70. It shows that there was sufficient level of working capital in the company. On the whole, it seems that the company has utilised its working capital in an efficient manner.

An inter-firm comparison of this ratio shows that the highest turnover ratio it shows that the highest turnover ratio was in Hindustan Petroleum Corporation Limited followed by Castrol India limited, Apar Industries Limited and Indian Oil Limited respectively. Hindustan Petroleum followed a policy of overtrading while Indian Oil followed a policy of under trading, rest of the companies have balanced ratio.

It is evident that during the whole of the study period the inventory to working capital ratio of the group kept on fluctuating. Looking at the averages of the

selected lubricant oil companies, the ratios shows that the amount of inventories was less than the amount of working capital. In comparison to this norm, the group had a better ratio.

An inter –firm comparison shows that the highest ratio was in Hindustan Petroleum Corporation limited with an average of 3.69 times followed by Apar Industries Limited with an average of 2.71 times, Castrol India limited with an average of. 94 times and Indian Oil limited with an average of -20 times respectively.

In Indian Oil Corporation limited, the average is negative which means that company does not have sound working capital position. The company needs to tie up more working capital funds in inventories.

Hindustan Petroleum Limited and Apar Industries Limited have sound working capital position. As the ratio of Hindustan Petroleum Limited is more than one which shows that more of the working capital funds were tied up in inventories.

The selected lubricant oil companies had a varying trend which ranged from 48.11 times being highest on an average to 4.78 times which is lowest on an average. An inter-firm comparison reveals that debtors turnover ratio was the highest in Hindustan Petroleum Corporation Limited followed by Indian Oil Corporation Limited, Castrol India limited, Apar Industries Limited respectively. Looking into the table, the ratio shows that the companies followed an efficient credit and collection policy.

In Indian Oil Corporation Limited, the ratio was lower than that of Hindustan Petroleum Limited but higher than all the other companies of the study period. The debtor turnover ratio in this company ranged from 42.87 times in the year 2011-12 to 47.43 times in the year 2015-16. This turnover ratio shows the efficiency of the company and that the debts are being collected rapidly.

In Castrol India limited, the ratio was normal during the whole of the study period. It shows the efficiency of the company positively. It ranged from 13.71 times

in the year 2011-12 to 12.99 times in the year 2015-16. This decline trend shows that the debts are not being collected rapidly in the later years.

In Apar Industries Limited, the ratio was the lowest among all the companies during almost the whole of the study period and was towards increase. This shows its turnover also increased. This increased turnover shows the increased efficiency of the company in the later years.

The overall debtor turnover ratios of all these companies is quite satisfactory which shows that these companies have good collection policy from the debtors.

It is evident that in the group the average collection period had shown an invariably static trend throughout the period of the study.

A comparative study of the average collection period in all the companies reveal that the recovery and collection policy of Apar Industries Limited was better than that of other three companies.

The average collection period in Apar Industries Limited had shown an invariably trend of increase throughout the period of study.

Suggestions: Though the current ratio of Indian Oil Corporation limited was highest as compared to other companies under the study, however the company is well advised to maintain this ratio within a reasonable limit.

The acid test ratio of Apar Industries Limited was not satisfactory, so necessary steps should be taken by the company to improve this ratio.

Hindustan Petroleum Limited registered the highest working capital turnover, it showed that the company tried to manage a small amount of working capital, implying that a policy of over-trading was being followed by the company. Hence the company is well advised to enhance its working capital funds. In Indian Oil corporation limited, the turnover was the lowest which shows that there was excessive investment in the working capital as a policy of under trading was being

followed by the company. It is therefore suggested that the company should try to take steps to improve its turnover.

The ratio of inventory to working capital is an indication of the amount of working capital invested in inventory. Hindustan Petroleum Corporation Limited and Apar Industries Limited recorded this ratio more than one, which shows that funds more than the working capital were tied up in inventories. Hence, it is suggested that the level of inventories should be reduced by these companies.

7.3 MEASUREMENT OF SOCIAL PERFORMANCE

The social performance of the selected Lubricant oil companies under study and the group taking all the four companies together, common size value added statements have been prepared and analysed. The common size percentages have been computed by taking sales revenue (goods and services). Equal to a hundred on the generation of value added side while on the 'value allocation side' the figures of the total disposal of the value added have been taken as hundred to calculate common-size percentages of each item.

The common size value added statement consists of two parts. The first part 'generation of value added' shows the excess of sales revenue over cost of goods and services bought-in, while the second part 'allocation of value added' consists of the value allocated to the different constituent funds reinvested in the businesses are also shown on this side.

The Value Added Statement (VAS) is usually divided into two parts: (A) Generation of Value Added and (B) Application of Value Added. It can be prepared either in "Report or Vertical Form" or "Account or Horizontal Form"

The study concentrated on the critical analysis of data available from the financial statement of Indian Oil Corporation Limited, Hindustan Petroleum, Castrol India limited, Apar Industries Limited Ltd and Castrol India limited for six years (2011 to 2016) On the basis of the data the Profit & Loss Statement and the Value Added Statement have been prepared simultaneously over the period under study.

Data are compiled after considering necessary re-arrangement for the purpose of the study. The analysis has been made in three parts: (i) VAS analysis, (ii) Time Series analysis, and (iii) Ratio analysis. In VAS analysis Gross Value Added (GVA) and Net Value Added (NVA) have been computed by using the format of VAS used by the company just after making some modifications necessary for the purpose of the study. In Time Series analysis the straight trend line equations of GVA and NVA are fitted on the basis of available data by using the method of least squares and trend values have also been computed for the years under study. Again in the last part of the analysis value-added ratios for the measurement of performance as well as productivity of companies have been computed on the available data.

After the data of all four companies under review, there is a comparison of percentage distribution made by each company in base year as well as in last year. It is just an overview of distribution policy followed by each company under study.

Gross value added has increased to 137% as compared to base year where as materials usage in 2015-16 is the second lowest. This clearly shows that the company is more focused into using its resources efficiently and make more value for stakeholders rather than giving to outside parties. However, other expense in profit and loss has become double as compared to base year, since of very small amount as compared to revenue figures, it is causing not much of difference as a whole.

The distribution of value added, with respect to amounts, is consistently approximately the same only in the case of employees. Else, high variation is seen in others. One more thing to be noticed, there is high variation in case of amounts distributed to providers of capital, this reveals that company raises short term loans and uses them since long term loans have constant instalments to be paid. This practice sometimes become harmful for financial health of company since company ends up paying higher amount of interest.

Employees' share of NVA was 34.76% in 2012 and it increased to 38.33% in 2015 following a downfall in next year going to 28.84%. However, cumulative distribution between employees and owners form a major part of at least 60% in each of the year.

The statement showing GVA and NVA figures of HPCL are shown in Table-2. In Table-2 it is found that both GVA and NVA figures have increased over time (i. e. from 2011-12 to 2015- 16) except in the year 2011-2012. The distribution of Net Value Added is also clearly shown in the table over the period of six years. The GVA and NVA indices (taking 100 in the year 2011-12 as base) reveal a continuous increasing trend (except in 2011-2012) in Value Added throughout the period under study. We have taken information from published and audited financial statements available on site of the company.

The above analysis indicates that the value addition has increased with the increase in the value of production over time either by using underutilized capacity of production or by enhancing the capacity of production of the company. It is worthwhile to mention that the use of GVA and NVA figures, for the analysis of managerial performance, is preferable to Net Profit because of the fact that the GVA/NVA is the amount available to all participants: the employees, the government, the providers of capital and the owners cooperating in a group for the creation of the company, whereas Net Profit figure is the amount available to the owners only. Thus if we analyze the performance of the company on the basis of value added figure then the analysis reveals the distributive judgment in respect of all participants but if we analyze the said performance on the basis of Net Profit then it is beneficial to the owners only. In this perspective it may be concluded that for the analysis of performance the value added figure can throw a new light into the performance of an enterprise in addition to Net Profit.

Employees' share of NVA decreased to 27% in 2015-2016. The retained earnings, a portion of owners' share, is very much important for growth and expansion of business. From the table it is found that retained earnings have more or less an increasing trend over the periods under study. From the VAS it is also found that the depreciation has marked a rising trend over the period under study. It suggests that company should try to maintain a stable increasing trend of distribution to salary/workers along with retention of funds in future after careful consideration of dividend policy in the one hand and market value of the firm on the other, so that it can grow and expand without any difficulties. It is worthwhile to mention that a

major portion (i. e. more than 60%) of NVA has been concentrated in two heads i. e. contribution to employees and the owners.

The statement showing GVA and NVA figures of Castrol India Limited clearly reveals that figures of NVA have been increasing with a little downfall in between. But the point which is worth noticing is that in last two years materials used have decreased where as there is increase in value added. Company is using its resources very efficiently to make most of its materials used. In year 2011, value of production was 3466.04 and materials used were 2167.26 whereas in 2016 value of production was 3890.94 and materials used were 2052.20.

The increase in value of production and value added, there is constant increase in value distributed to employees. There are slight changes in percentage of distribution to employees but value towards employees have been constantly increasing with the increase in value added.

Employees' share of NVA was 13.90% in 2011 and it increased to 15.65% in 2017. The retained earnings, a portion of owners' share, is very much important for growth and expansion of business. Company is following a strategy in which it is evenly distributing value added among stakeholders. This is a fine approach and believes that a company grows when its stakeholders grow and not only shareholders grow.

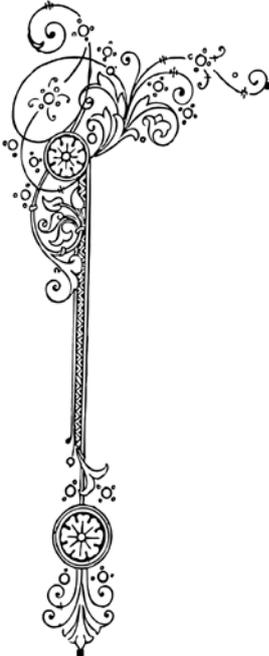
From the statement showing GVA and NVA figures of APAR, it is found that both GVA and NVA figures have increased over time (i. e. from 2010-11 to 20- 2016) except in the year 2013-14 and 2014-15. But after that GVA and NVA figures reached the highest in 2015-16. The distribution of Net Value Added is also clearly shown in the table over the period of six years. The GVA and NVA indices (taking 100 in the year 2011-12 as base) reveal a continuous increasing trend in Value Added throughout the period under study. As shown in table, GVA and NVA is almost double in last year as compared to base year. We have taken information from published and audited financial statements available on site of the company. Contribution to Government varies due to MAT provisions as applicable.

The study shows that company is consistently increasing the share of employees and providers of capital along with the increase in sales and thus resulting in growth of all. To manage this, company is adjusting retained earnings and dividend held for expansion so that. The above analysis indicates that the value addition has increased with the increase in the value of production over time either by using underutilized capacity of production or by enhancing the capacity of production of the company. Thus if we analyze the performance of the company on the basis of value added figure, it reveals that company is heading towards to get more percentage of benefit with less increase in cost of production and distributing evenly the NAV earned.

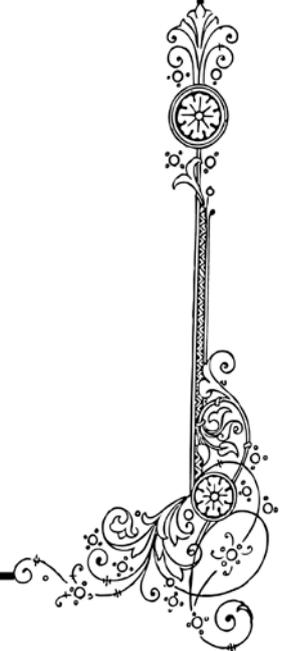
Employees' share of NVA was 20.19 in 2011-12 and it increased to 20% in 2015-2016. The retained earnings, a portion of owners' share, is very much important for growth and expansion of business. From the table it is found that retained earnings is not constant and has variations so as to adjust the distribution to others. From the VAS it is also found that the depreciation has marked a rising trend over the period under study. It suggests that company should try to maintain a stable increasing trend of retained earnings along with distribution to others as it is very essential for the growth of the company. Retained earnings help in expansion of company and higher future maintainable profits.

Suggestion: The companies having a decreasing trend are well advised to take measures on cost of bought-in-goods and as well on cost of services obtained. On the other hand, the companies should check their cost of capital work in progress so as to have an effective control over excessive capital employed. All these steps may be the cause of getting the ratio increased.

It is also suggested that companies should try to maintain and increase the value added from the increase of salaries paid to employees, through better utilisation of manpower resources.



Summary



SUMMARY

Introduction

The idea to frame a case study of the selected lubricant oil industry grew out of the conviction that very few studies have been made in this field. The proposed industry undertakes the task of looking into:

1. Evolution and development of lubricant oil industry in India.
2. The financial appraisal of selected companies located in India. .
3. Their contribution to the upliftment of the society, through value added techniques.

The present study adequately deals with the appraisal of performance of the Lubricant oil companies in India. The financial appraisal is a vital unit to measure the performance of firms. Therefore, financial statements are prepared to serve the objective. The primary focus of financial reporting is information about an enterprise's performance provided by measures of earnings and its components.

Rrich A. Helfert rightly remarks, "The measurement of business performance is more complex and difficult, since it must deal with the effectiveness with which capital is employed, the efficiency and profitability of operations, and the value and safety of various claims against the business"

The areas of financial appraisal are mainly, profitability, working capital, measurement of social performance, etc. in which financial appraisal is generally applied to assess and measure the efficiency of the business in that particular area.

The objectives of financial appraisal are that it encompasses everything involved in managing the enterprise's financial resources. . it involves the activities such as:

- (1) Financial planning: financial planning is assessing your business' financial situation, determining its objectives and formulating financial strategies of how to achieve them.
- (2) Budgeting and forecasting: budgeting and forecasting is essential for controlling the financial affairs of a concern.

- (3) Financial control: financial control devices generally used by management are (i) Ratio analysis (ii) Cost control (iii) Internal audit (iv) standard costing etc.
- (4) Estimating financial requirements: Scope of finance function includes estimating the financial requirements of the enterprise. Finance is required for both long-term as well as short-term purposes. Necessity of finance arises not only at the commencement of business but also during the period business activities are continued. Shortage of funds may ruin the business. Thus, the proper estimation of requirement of funds is necessary.
- (5) Cash and treasury management: cash and treasury management is also covered under the scope of financial appraisal. Cash and treasury management includes assessing the needs of money and ensuring that the enterprise has the money when it is needed.
- (6) Deciding optimal capital structure: Capital structure refers to the mix or proportion of different sources of finance in the total capitalisation of the company. The capital structure is said to be an optimal capital structure when a company selects such a mix of debt and equity, which minimises the overall cost of capital and maximises the wealth of the shareholders.
- (7) Choosing an appropriate source of finance: funds can be procured from different sources. Finance function aims at selecting the most appropriate source of finance.

The techniques which are commonly used for the financial appraisal are ratio analysis, trend analysis, comparative statement analysis, common-size statement analysis etc. statistical techniques are also used for the purpose and they generally include the average, index number etc. Diagrams, graphs and charts are also prepared and made use of.

This study is conducted with a view to exploring the financial appraisal of the Lubricant oil companies in India. The lubricant industry has played an important and multidimensional role to uplift and take our country out of the lamentable state we had been experiencing just after independence. Our progress and around prosperity owe a great deal to the multifaced role performed by some of the very

important oil companies. The aim is to know how the oil companies have utilised their resources and to appraise the performance of profitability, working capital and measurement of social performance and their contribution to the upliftment of the society.

For the present study, four companies of oil industry which are mainly engaged in manufacturing of Lubricant oil will be selected on the basis of capital employed and a period of five years (from 2011-12 to 2015-2016) will be taken for appraisal of these companies. The names of these companies are:

1. Indian Oil Corporation Ltd,
2. Hindustan Petroleum Corporation Ltd,
3. Castrol India Limited India Ltd,
4. Apar Industries Limited Ltd.

The financial appraisal of the selected Lubricant oil companies covered in this study is fully examined. The conclusions drawn and suggestions attempted provides practical guidance to the managements of the companies to initial action for improvement of performance of their companies.

The study can be helpful to the management of these selected lubricant oil companies, financial managers, investors, workers and consumers in taking decisions related to their own spheres of interest.

- For the financial appraisal of the companies, the data has been collected primarily from the annual reports of the selected companies and these are supplemented from other data collected from personal interviews and contacts. The collected data is recasted and presented in the form of condensed balance sheet and income statement. For evaluation, the performance techniques of financial analysis and interpretation such as ratio analysis, trend analysis, comparative statement analysis and common size statement analysis shall be used.
- All the statements and ratios have been analysed and interpreted, and conclusions have been drawn. To arrive at the conclusion, inter firm comparisons have been made and for evaluating the performance, techniques

of financial and statistical analysis have been used. Few diagrams and graphs have also been used. At the end, on the basis of conclusion, some suggestions have been made to improve the profitability of the selected companies.

It will not be out of order to point out here that this analysis of the selected oil companies is subject to a number of constraints and limitations. Since the companies do not give separate product wise data on sales, income, profits and other key variables, the results are aggregative in nature and may not necessarily reflect the working of these selected lubricant oil companies.

The companies under the study refused to provide detailed information on various items given in a summarised form in the annual report. They also refused to provide budgets and standards fixed by them. However, the study has been made after having got the desired and useful information through our best possible efforts.

All financial data relating to the study have been expressed in crores of rupees rounded upto two decimal place. The principal financial statements are the income statements and balance sheets of a business enterprise. Balance sheet is a statement of assets and liabilities of a company at a particular point of time, while income statement shows the results of trading and non-trading operations during a certain period of time. Financial statements have been redesigned, revised and rearranged for analysing the data all the statements and ratios have been analysed, interpreted and conclusions have been drawn. To arrive at objective conclusions and findings, statistical techniques have also applied on the basis of the conclusions drawn, various suggestions have been made wherever some improvement is called for.

PROFITABILITY

The present study has been made in order to examine through 'profitability ratios' the appraisal of profitability of the lubricant oil companies in India and also of the individual Lubricant oil companies.

The profitability ratios which have been discussed in this chapter are Gross Profit ratios, Operating Profit Ratios, Net profit Ratio, Expense as composition to sales ratio, return on capital employed, return on net worth and a study of earning per equity share of the companies under the study has also been made.

The study shows that as regards, Indian oil, the gross profit ratio ranged from 3.40 percent in 2011-12 to 4.33 percent in 2015-16. It showed a decreasing trend in the year 2012-13 and 2014-15 but again it showed an increasing trend in the year 2015-16. The average gross profit ratio of this company is 2.60 percent. The management is very much interested in the calculation of this ratio.

As regards to Hindustan Petroleum Limited, the company showed its gross profit ratio from 1.35 in 2011-12 to 2.92 in the year 2015-16. The company showed fluctuating change in gross profit ratio in the last five years but showed an increasing trend in the year 2015-16. The average gross profit ratio of the company is 1.7 which shows company needs to grow up more as regards to gross profit ratio.

As regards to Castrol India limited, the gross profit ratio is 19.09 in the year 2011 to 28.48 in the year 2015-16. The company has shown an increasing trend in the gross profit ratio in the last five years. The average gross profit ratio of the company is 22.84 which is very much favourable and shows that the company has good efficiency in producing goods.

As regards to Apar Industries Limited, the gross profit ratio ranged from 5.06 in the year 2011-12 to 6.34 in the year 2015-16. It showed a fluctuating trend till the year 2014-15 but it showed an increasing trend in the year 2015-16. The average gross profit ratio of the company in the last five years is 5.40 which is satisfactory as compared to Indian oil and Hindustan petroleum.

As regards to Gross Profit Ratio, Castrol India limited showed a good profitability followed by Apar Industries Limited, Indian Oil and Hindustan Petroleum respectively.

In Indian oil, net profit ratio ranged from. 99 in 2011-12 to 2.96 in 2015-16. It showed an increasing trend in 2012-13 as the net profit ratio increased to 1.11. But later it again showed an increasing trend in the year 2013-14 and the net profit reached to 1.48. The net profit ratio in the year 2014-15 was quite unsatisfactory which is 1.20 but in 2015-16 it increased to 2.96. The average net profit ratio of this company in the last five years is 1.54. The overall net profit ratio in the last five years was quite satisfactory.

In Hindustan Petroleum Corporation Ltd, the net profit ratio ranged from. 51 in the year 2011-12 to 2.15 in the year 2015-16. It showed a increasing trend, this ratio was satisfactory in the last two years. In this company the net profit increased to 2.15 in 2014-15. The overall net profit ratio of last five years on an average is quite unsatisfactory.

Now coming to the private sector lubricating oil companies, Castrol India limited India Ltd showed a net profit which ranged from 14.33 in the year 2011-12 to 20.02 in the year 2015-16. But later in the year 2013-14 it showed a decreasing trend of 13.98 percent but again it showed an increasing trend of 18.65 percent in 2014-15. The average net profit in the last five years is 16.59 which is very much satisfactory.

In Apar Industries Limited, the net profit ranged from 1.71 percent in the year 2011-12 to 3.13 percent in the year 2015-16. The net profit increased to 2.25 percent in the year 2012-13. But later on it showed a decreasing trend as net profit decreased in the last two years as 1.53 percent in the year 2013-14. 95 in the year 2014-15. The over all Net profit ratio of Apar Industries Limited is quite satisfactory.

During the years 2011-12 to 2015-16, the ratio of operating profit to operating assets in Indian Oil under study registered a decreasing trend in earlier years, but it had showed an increasing trend in later years. This ratio which was 4.62 percent in 2011-12 decreased to 2.32 percent in 2015-16. During later years the ratio improved significantly and still it was much better than that of the average of 9.33 percent.

On the basis of the above, it can be inferred that the ratio had shown an increasing trend which indicates high profitability in Indian Oil under study.

In Hindustan Petroleum, the ratio varied from 2.31 percent in 2011-12 to 4.40 in 2015-16. The average ratio in this company was lower than that of Indian Oil during most of the years. On the basis of the average ratio it was the lowest. On the basis of the above table, it can be inferred that the ratio had marked a falling trend in earlier years which indicates low profitability, but on the result of the year 2015-16 a good future can be expected.

In Castrol India limited as Table 4. Shows the ratio of operating profit to operating assets continuously increased during the study period. The ratio varied from 19.94 percent in 2011-12 to 29.81 percent in 2015-16. The ratio in this company was higher than that of Indian Oil and Hindustan petroleum under the study. On the basis of average ratio which is 23.92 percent, it was the highest. On the whole, it can be inferred that the ratio had shown an increasing trend which indicates high profitability in the company. On the whole, the profitability of the company was the best amongst under study.

In Apar Industries Limited, the table shows that the ratio of operating profit to operating assets was towards a decline in 2014-15, but this decline trend was checked up during 2015-16 which is 29.81. This ratio which was 5.68 in 2011-12 decreased to 4.81 in 2014-15. During later years the ratio improved in this company was lower than Castrol India limited.

On the whole, it can be inferred that the ratio had a falling trend in earlier years which indicates low profitability in the company. But on the basis of the result of the later years, a good future can be expected.

As regards to Operating Profit Ratio, Castrol India limited showed a good profitability followed by, Indian Oil, Apar Industries Limited and Hindustan Petroleum respectively.

As regards to expenses as composition to sales Indian Oil ranged from 4.97 percent in 2011-12 to 3.97 percent in 2015-16 where as Hindustan Petroleum Corporation Limited ranged from 4.32 percent in 2011-12 to 1.00 percent in 2015-16. Coming to private sector, Castrol India limited ranged from. 67 percent in 2011-12 to. 42 percent in 2015-16 where as Apar Industries Limited ranged from 28.53 percent in 2011-12 to 33.43 percent in 2015-16. Apar Industries Limited showed in overall increasing trend in this ratio which is not beneficial for the company in the future. The average percent of Apar Industries Limited is 31.73 percent which is highest as compared to other three companies under the study.

As regard to expenses, Apar Industries Limited showed higher expenditure followed by Indian Oil, Hindustan Petroleum Limited and Castrol India limited respectively.

As regards to return on capital employed, Indian Oil showed a trend of 13.08 percent in 2011-12 to 14.98 percent in 2015-16. In the earlier years it showed a decreasing trend but significantly it increased to 14.98 percent in 2015-16 which is quite satisfactory. The average percentage is 10.82 percent which is lowest among other three companies.

Hindustan Petroleum limited ranged from 8.48 percent in 2011-12 to 19.41 percent in 2015-16. It showed a decreasing trend in 2012-13 which is 7.31 percent. But its return on capital employed increased in later years due to which good future can be expected. The average percentage of this company is 11.68 percent which is less than private sector companies' i. e Castrol India limited and Apar Industries Limited.

Now coming to private sector companies, Castrol India limited ranged from 102.91 percent in 2011-12 to 175.77 percent in 2015-16. The overall percentage change in this company is increasing at a very good rate. The average return on capital employed of this company is 137.85 which is best among all the other companies under the study.

As compared to return on capital employed, Apar Industries Limited ranged from 12.21 percent in 2011-12 to 29.51 percent in 2015-16. Among the last five years taken under the study, Apar Industries Limited showed a fluctuating trend but in the last few years it showed an increasing trend which shows high profitability in the company.

The higher the return on Net worth, the better it is for the company as it shows that the objectives of the company have been achieved successfully. Comparing the averages of the return on net worth of the companies in the last five years taken under the study, Castrol India limited showed a higher increasing trend of 68.91 percent in 2011-12 to 113.28 percent in 2015-16 with an average of 90.45 percent followed by Apar Industries Limited with 14.05 percent, Hindustan Petroleum Corporation limited with 12.63 percent and Indian Oil with 9.49 percent respectively.

As regards to Earning Per Share, Indian Oil showed an increasing trend in the last five years which ranged from 16.29 percent in 2011-12 to 42.83 percent in 2015-16. Though the company had a declining trend in 2014-15 but it picked up in 2015-16 to 42.83 percent. The over all earning per share in the last five years is good which shows the better performance and prospects of the company.

Hindustan Petroleum Corporation limited had an increasing trend of earning per share which ranged from 26.92 percent in 2011-12 to 114.07 percent in 2015-16. The company had a very good earning per share capacity in all the last five years taken under the study. The company had an average earning per share as 59.92 percent which is highest among the other three companies taken under the study.

In private sector Lubricant oil companies taken under the study Castrol India limited had a low earning per share in the last five years as compared to other three lubricant oil companies taken under the study. The company showed a range of 9.05 percent in 2011-12, 10.28 percent in 2012-13, 9.60 percent in 2013-14, 12.44 percent in 2014-15 and 13.65 percent in 2015-16 with an average of 11 percent.

The other private sector company taken in the study i. e. Apar Industries Limited Industry showed a high earning per share performance as compared to Castrol India limited. The company showed a fluctuating trend in all the five years taken under the study with a increasing trend of 40.78 percent in 2015-16 with an average of 22.82 percent which shows a better performance of the company.

In the light of the above discussion it is suggested that Suggestion: In order to improve the gross profit and net profit of the individual companies and all the companies taken under study, it has been suggested that Hindustan Petroleum Corporation limited should try to reduce the cost of goods sold while Apar Industries Limited should take steps to control the operating expenses.

In the light of above discussion it is also suggested that Hindustan Petroleum Corporation Limited should undertake cost control measures so that increased net profits before interest and taxes of the company might enhance the return on net capital employed.

In order to improve the earning per share it has been suggested that Castrol India limited and Apar Industries Limited should try to reduce the cost of goods sold and operating expenses, try to get more profits after taxes and preference dividend.

Appraisal of Working Capital Performance

The study of working capital performance and the utilisation and management of working capital were analysed through different ratios.

On an average Indian oil corporation limited held a current ratio of 2.61 times. It implies that for every rupee of current liability 2.16 rupees of current assets are available to meet them. In other words it can be said that the current assets are more than two times of the current liabilities. In 2011-12 it was 1.00 times which increased to 9.09 times in 2015-16.

During the whole of the study period from 2011-12 to 2015-16 the current ratio in Hindustan Petroleum Corporation limited was below the norm. It varied from. 86 times in 2011-12 to 1.02 times in 2015-16. On an average the current ratio

in the company was. 99 times. It implies heavy reliance on short term financing, and so from the view point of creditors the liquidity of the company cannot be considered satisfactory. A slight decline in the value of current assets in the year 2015-16 may adversely affect the ability of the company. More investment in current assets will give a sufficient cushion to the creditors of the company and the company will be able to meet its obligations in full.

In Castrol India limited the current ratio was also below the norms in most of the years. In no year (taken under the study) the ratio was as per the norms. It varied from 1.45 times in 2011-12 to 1.24 times in 2015-16. On an average the company held the current ratio of 1.35 which was below the norm. Hence the company is advised to enhance its current ratio.

In Apar Industries Limited, the trend of this ratio was also towards an increase. But on an average the company held the ratio of 1.14 times which was below the standard norm. The company's current ratio varied from 1.13 times in 2011-12 to 1.22 times in the year 2015-16. Hence the company is advised to keep its current ratio within reasonable limits.

It may not be out of place to mention here that current ratio may also indicate the financing of working capital. If the current ratio of a firm is 2:1, it will indicate that 50 percent current assets have been financed by long term sources. If the current ratio is more or less than 2:1, the percentage of financing the current assets through long term sources will also be more or less than 50 percent.

On an average, if we look at all the lubricant oil companies (taken under the study) except Indian Oil Corporation limited, these companies indicate that more than 50 percent current assets have been financed through long term sources. Except Indian oil Corporation limited, all that companies under the study appear to have followed the policy of financing the current assets through long term sources by more than fifty percent.

There was a fluctuating trend in the acid-test ratio of the lubricant oil companies taken under the study.

The acid –test ratio in Indian Oil Corporation Limited fluctuated from. 55 times in 2011-12 to. 55 times in 2015-16 and had a fluctuating trend. During all the years (taken under the study) the ratio was below the norms. On an average the company held the ratio of. 54 times which was less than norm. On the whole the liquid position of the company during the last five years was quite unsatisfactory and the company is advised to improve this fluctuating trend.

In case of Hindustan Petroleum Corporation limited, on an average the company held the acid test ratio of. 51 times, which was lower than other companies under the study but higher than Apar Industries Limited. During the whole of the study period the ratio of the company was fluctuating. Hence the liquidity position of the company was not considerably good but better than Apar Industries Limited. The ratio varied from. 47 times in 2011-12 to 1.52 times in 2013-14 and. 47 times in 2015-16. The reason behind the decreasing trend was comparatively low decrease in quick assets as compared to steep decline in current liabilities.

The acid-test ratio in Castrol India limited fluctuated from 1.06 times in 2011-12 to 1.08 times in 2013-14 to. 96 times in 2015-16. During the early years the ratio was below the norms except in 2011-12 and 2013-14. On an average the company held the ratio of. 92 times which was less than the norm. On the whole, the liquidity position of the company during the last three years except in 2013-14 was quite unsatisfactory and the company is well advised to improve this trend.

In case of Apar Industries Limited, on an average the company held the acid test ratio of. 37 times, which was lower among all the companies taken under study. During the whole of the study period, the ratio of the company was lower than the norm. Hence, the liquidity position of the company was considerably unsatisfactory. The ratio varied from. 30 times in 2011-12 to. 42 times in 2015-16. The liquidity position of the company is therefore, threatened, and there has been an acute shortage of working capital throughout the study period. The decline in this ratio was the effect of increase in current liabilities while decrease in quick assets.

On the whole it can be inferred from the above discussion that except Indian Oil Corporation Limited, all the companies taken under the study held on an average quite unsatisfactory acid-test ratio.

A look at the data, it is clear that there was a fluctuating trend in the working capital turnover ratio of all the companies taken under the study.

In the case of Indian Oil Corporation Limited, on an average, the company held the ratio of -157.65 was the lowest among the companies taken under the study. It shows that there was an excessive investment in working capital and the company had followed the policy of under trading. Had the company followed a sound financial policy, the turnover of working capital would have been much better.

The working capital turnover ratio of Hindustan Petroleum limited during the period of study fluctuated widely from -30.21 times in 2011-12 to 259.22 times in 2015-16. The ratio during the early years was lower than the later years. During the later years the working capital of the company increased substantially while on the other hand sales increased and this result in higher ratio of 259 times in the year 2015-16. The ratio in this company was higher than that of the rest of the companies on the whole, the company appears to have utilised its working capital during later years efficiently, though the working capital position of the company during 2012-13 was poor.

In Castrol India limited, the working capital turnover ratio was towards increase in all the years taken under the study except in the year 2013-14 which was 7.08 times. During the year 2014-15 this ratio was highest to 19.28 times. There is a need to increase in the sales without a corresponding increase in working capital.

Apar Industries Limited held a reasonable and satisfactory turnover ratio during the last five years of the study period. The average working capital turnover ratio was 14.70. It shows that there was sufficient level of working capital in the company. On the whole, it seems that the company has utilised its working capital in an efficient manner.

An inter-firm comparison of this ratio shows that the highest turnover ratio it shows that the highest turnover ratio was in Hindustan Petroleum Corporation Limited followed by Castrol India limited, Apar Industries Limited and Indian Oil Limited respectively. Hindustan Petroleum followed a policy of overtrading while Indian Oil followed a policy of under trading, rest of the companies have balanced ratio.

It is evident that during the whole of the study period the inventory to working capital ratio of the group kept on fluctuating. Looking at the averages of the selected lubricant oil companies, the ratios shows that the amount of inventories was less than the amount of working capital. In comparison to this norm, the group had a better ratio.

An inter –firm comparison shows that the highest ratio was in Hindustan Petroleum Corporation limited with an average of 3.69 times followed by Apar Industries Limited with an average of 2.71 times, Castrol India limited with an average of .94 times and Indian Oil limited with an average of -20 times respectively.

In Indian Oil Corporation limited, the average is negative which means that company does not have sound working capital position. The company needs to tie up more working capital funds in inventories.

Hindustan Petroleum Limited and Apar Industries Limited have sound working capital position. As the ratio of Hindustan Petroleum Limited is more than one which shows that more of the working capital funds were tied up in inventories.

The selected lubricant oil companies had a varying trend which ranged from 48.11 times being highest on an average to 4.78 times which is lowest on an average. An inter-firm comparison reveals that debtors turnover ratio was the highest in Hindustan Petroleum Corporation Limited followed by Indian Oil Corporation Limited, Castrol India limited, Apar Industries Limited respectively. Looking into the table, the ratio shows that the companies followed an efficient credit and collection policy.

In Indian Oil Corporation Limited, the ratio was lower than that of Hindustan Petroleum Limited but higher than all the other companies of the study period. The debtor turnover ratio in this company ranged from 42.87 times in the year 2011-12 to 47.43 times in the year 2015-16. This turnover ratio shows the efficiency of the company and that the debts are being collected rapidly.

In Castrol India limited, the ratio was normal during the whole of the study period. It shows the efficiency of the company positively. It ranged from 13.71 times in the year 2011-12 to 12.99 times in the year 2015-16. This decline trend shows that the debts are not being collected rapidly in the later years.

In Apar Industries Limited, the ratio was the lowest among all the companies during almost the whole of the study period and was towards increase. This shows its turnover also increased. This increased turnover shows the increased efficiency of the company in the later years.

The overall debtor turnover ratios of all these companies is quite satisfactory which shows that these companies have good collection policy from the debtors.

It is evident that in the group the average collection period had shown an invariably static trend throughout the period of the study.

A comparative study of the average collection period in all the companies reveal that the recovery and collection policy of Apar Industries Limited was better than that of other three companies.

The average collection period in Apar Industries Limited had shown an invariably trend of increase throughout the period of study.

Suggestions: Though the current ratio of Indian Oil Corporation limited was highest as compared to other companies under the study, however the company is well advised to maintain this ratio within a reasonable limit.

The acid test ratio of Apar Industries Limited was not satisfactory, so necessary steps should be taken by the company to improve this ratio.

Hindustan Petroleum Limited registered the highest working capital turnover, it showed that the company tried to manage a small amount of working capital, implying that a policy of over-trading was being followed by the company. Hence the company is well advised to enhance its working capital funds. In Indian Oil corporation limited, the turnover was the lowest which shows that there was excessive investment in the working capital as a policy of under trading was being followed by the company. It is therefore suggested that the company should try to take steps to improve its turnover.

The ratio of inventory to working capital is an indication of the amount of working capital invested in inventory. Hindustan Petroleum Corporation Limited and Apar Industries Limited recorded this ratio more than one, which shows that funds more than the working capital were tied up in inventories. Hence, it is suggested that the level of inventories should be reduced by these companies.

Measurement of Social Performance

The social performance of the selected Lubricant oil companies under study and the group taking all the four companies together, common size value added statements have been prepared and analysed. The common size percentages have been computed by taking sales revenue (goods and services). Equal to a hundred on the generation of value added side while on the ‘ value allocation side’ the figures of the total disposal of the value added have been taken as hundred to calculate common-size percentages of each item.

The common size value added statement consists of two parts. The first part ‘ generation of value added’ shows the excess of sales revenue over cost of goods and services bought-in, while the second part ‘allocation of value added’ consists of the value allocated to the different constituent funds reinvested in the businesses are also shown on this side.

The Value Added Statement (VAS) is usually divided into two parts: (A) Generation of Value Added and (B) Application of Value Added. It can be prepared either in “Report or Vertical Form” or “Account or Horizontal Form”

The study concentrated on the critical analysis of data available from the financial statement of Indian Oil Corporation Limited, Hindustan Petroleum, Castrol India limited, Apar Industries Limited Ltd and Castrol India limited for six years (2011 to 2016) On the basis of the data the Profit & Loss Statement and the Value Added Statement have been prepared simultaneously over the period under study. Data are compiled after considering necessary re-arrangement for the purpose of the study. The analysis has been made in three parts: (i) VAS analysis, (ii) Time Series analysis, and (iii) Ratio analysis. In VAS analysis Gross Value Added (GVA) and Net Value Added (NVA) have been computed by using the format of VAS used by the company just after making some modifications necessary for the purpose of the study. In Time Series analysis the straight trend line equations of GVA and NVA are fitted on the basis of available data by using the method of least squares and trend values have also been computed for the years under study. Again in the last part of the analysis value-added ratios for the measurement of performance as well as productivity of companies have been computed on the available data.

After the data of all four companies under review, there is a comparison of percentage distribution made by each company in base year as well as in last year. It is just an overview of distribution policy followed by each company under study.

Gross value added has increased to 137% as compared to base year where as materials usage in 2015-16 is the second lowest. This clearly shows that the company is more focused into using its resources efficiently and make more value for stakeholders rather than giving to outside parties. However, other expense in profit and loss has become double as compared to base year, since of very small amount as compared to revenue figures, it is causing not much of difference as a whole.

The distribution of value added, with respect to amounts, is consistently approximately the same only in the case of employees. Else, high variation is seen in others. One more thing to be noticed, there is high variation in case of amounts distributed to providers of capital, this reveals that company raises short term loans and uses them since long term loans have constant instalments to be paid. This

practice sometimes become harmful for financial health of company since company ends up paying higher amount of interest.

Employees' share of NVA was 34.76% in 2012 and it increased to 38.33% in 2015 following a downfall in next year going to 28.84%. However, cumulative distribution between employees and owners form a major part of at least 60% in each of the year.

The statement showing GVA and NVA figures of HPCL are shown in Table-2. In Table-2 it is found that both GVA and NVA figures have increased over time (i. e. from 2011-12 to 2015- 16) except in the year 2011-2012. The distribution of Net Value Added is also clearly shown in the table over the period of six years. The GVA and NVA indices (taking 100 in the year 2011-12 as base) reveal a continuous increasing trend (except in 2011-2012) in Value Added throughout the period under study. We have taken information from published and audited financial statements available on site of the company. The above analysis indicates that the value addition has increased with the increase in the value of production over time either by using underutilized capacity of production or by enhancing the capacity of production of the company. It is worthwhile to mention that the use of GVA and NVA figures, for the analysis of managerial performance, is preferable to Net Profit because of the fact that the GVA/NVA is the amount available to all participants: the employees, the government, the providers of capital and the owners cooperating in a group for the creation of the company, whereas Net Profit figure is the amount available to the owners only. Thus if we analyze the performance of the company on the basis of value added figure then the analysis reveals the distributive judgment in respect of all participants but if we analyze the said performance on the basis of Net Profit then it is beneficial to the owners only. In this perspective it may be concluded that for the analysis of performance the value added figure can throw a new light into the performance of an enterprise in addition to Net Profit.

Employees' share of NVA decreased to 27% in 2015-2016. The retained earnings, a portion of owners' share, is very much important for growth and expansion of business. From the table it is found that retained earnings have more or

less an increasing trend over the periods under study. From the VAS it is also found that the depreciation has marked a rising trend over the period under study. It suggests that company should try to maintain a stable increasing trend of distribution to salary/workers along with retention of funds in future after careful consideration of dividend policy in the one hand and market value of the firm on the other, so that it can grow and expand without any difficulties. It is worthwhile to mention that a major portion (i. e. more than 60%) of NVA has been concentrated in two heads i. e. contribution to employees and the owners.

The statement showing GVA and NVA figures of CASTROL INDIA LIMITED clearly reveals that figures of NVA have been increasing with a little downfall in between. But the point which is worth noticing is that in last two years materials used has decreased where as there is increase in value added. Company is using its resources very efficiently to make most of its materials used. In year 2011, value of production was 3466.04 and materials used were 2167.26 whereas in 2016 value of production was 3890.94 and materials used were 2052.20.

The increase in value of production and value added, there is constant increase in value distributed to employees. There are slight changes in percentage of distribution to employees but value towards employees have been constantly increasing with the increase in value added.

Employees' share of NVA was 13.90% in 2011 and it increased to 15.65% in 2017. The retained earnings, a portion of owners' share, is very much important for growth and expansion of business. Company is following a strategy in which it is evenly distributing value added among stakeholders. This is a fine approach and believes that a company grows when its stakeholders grow and not only shareholders grow.

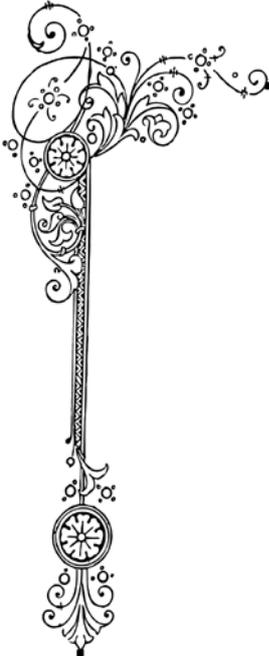
From the statement showing GVA and NVA figures of APAR, it is found that both GVA and NVA figures have increased over time (i. e. from 2010-11 to 20-2016) except in the year 2013-14 and 2014-15. But after that GVA and NVA figures reached the highest in 2015-16. The distribution of Net Value Added is also clearly

shown in the table over the period of six years. The GVA and NVA indices (taking 100 in the year 2011-12 as base) reveal a continuous increasing trend in Value Added throughout the period under study. As shown in table, GVA and NVA is almost double in last year as compared to base year. We have taken information from published and audited financial statements available on site of the company. Contribution to Government varies due to MAT provisions as applicable.

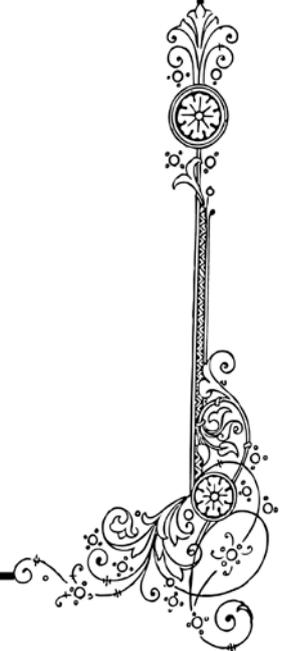
The study shows that company is consistently increasing the share of employees and providers of capital along with the increase in sales and thus resulting in growth of all. To manage this, company is adjusting retained earnings and dividend held for expansion so that. The above analysis indicates that the value addition has increased with the increase in the value of production over time either by using underutilized capacity of production or by enhancing the capacity of production of the company. Thus if we analyze the performance of the company on the basis of value added figure, it reveals that company is heading towards to get more percentage of benefit with less increase in cost of production and distributing evenly the NAV earned.

Employees' share of NVA was 20.19 in 2011-12 and it increased to 20% in 2015-2016. The retained earnings, a portion of owners' share, is very much important for growth and expansion of business. From the table it is found that retained earnings is not constant and has variations so as to adjust the distribution to others. From the VAS it is also found that the depreciation has marked a rising trend over the period under study. It suggests that company should try to maintain a stable increasing trend of retained earnings along with distribution to others as it is very essential for the growth of the company. Retained earnings help in expansion of company and higher future maintainable profits.

Suggestion: The companies having a decreasing trend are well advised to take measures on cost of bought-in-goods and as well on cost of services obtained. On the other hand, the companies should check their cost of capital work in progress so as to have an effective control over excessive capital employed. All these steps may be the cause of getting the ratio increased. It is also suggested that companies should try to maintain and increase the value added from the increase of salaries paid to employees, through better utilisation of manpower resources.



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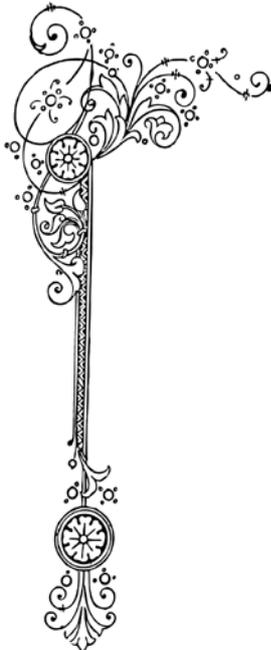
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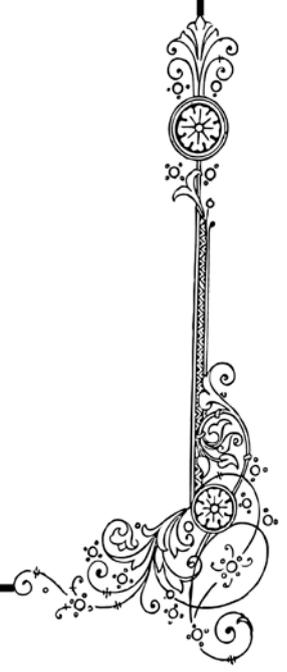
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Appendices



Annexures

Balance Sheet of Indian Oil Corporation Limited	----- in Rs. Cr. -----				
	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12
	12 mths	12 mths	12 mths	12 mths	12 mths
EQUITIES AND LIABILITIES					
SHAREHOLDER'S FUNDS					
Equity Share Capital	2,369.67	2,427.95	2,427.95	2,427.95	2,427.95
Total Share Capital	2,369.67	2,427.95	2,427.95	2,427.95	2,427.95
Reserves and Surplus	85,764.64	65,542.02	63,564.13	58,696.36	55,448.75
Total Reserves and Surplus	85,764.64	65,542.02	63,564.13	58,696.36	55,448.75
Total Shareholders Funds	88,134.31	67,969.97	65,992.08	61,124.31	57,876.70
NON-CURRENT LIABILITIES					
Long Term Borrowings	24,937.56	32,731.26	31,683.58	21,414.20	16,826.76
Deferred Tax Liabilities [Net]	6,858.99	6,720.21	5,616.18	5,512.66	5,241.88
Other Long Term Liabilities	18,156.92	15,216.48	13,411.58	11,435.18	9,830.30
Long Term Provisions	2,386.29	410.2	390.12	375.25	258.18
Total Non-Current Liabilities	52,339.76	55,078.15	51,101.46	38,737.29	32,157.12
CURRENT LIABILITIES					
Short Term Borrowings	17,545.81	16,979.31	48,915.54	56,911.00	53,497.17
Trade Payables	22,331.82	29,199.77	35,697.29	29,729.91	27,520.75
Other Current Liabilities	30,369.49	23,310.68	24,319.15	19,852.08	23,917.65
Short Term Provisions	9,782.98	27,311.59	26,388.26	17,640.68	14,890.36
Total Current Liabilities	80,030.10	96,801.35	1,35,320.24	1,24,133.67	1,19,825.93
Total Capital And Liabilities	2,20,504.17	2,19,849.47	2,52,413.78	2,23,995.27	2,09,859.75
ASSETS					
NON-CURRENT ASSETS					
Tangible Assets	90,594.59	65,624.77	62,256.62	59,823.45	58,932.29
Intangible Assets	752.38	626.7	692.17	809.28	914.51
Capital Work-In-Progress	20,329.56	35,563.98	33,150.64	17,987.13	13,415.36
Intangible Assets Under Development	695.52	759.52	728.59	285.99	272.53
Fixed Assets	1,12,372.05	1,02,574.97	96,828.02	78,905.85	73,534.69
Non-Current Investments	30,085.66	16,628.58	16,311.49	5,032.62	4,918.01
Long Term Loans And Advances	1,127.78	4,620.34	4,626.48	11,744.37	10,388.58
Other Non-Current Assets	6,227.97	94.56	70.02	13.86	17.01

Annexures

Balance Sheet of Indian Oil Corporation Limited	----- in Rs. Cr. -----				
	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12
	12 mths	12 mths	12 mths	12 mths	12 mths
Total Non-Current Assets	1,49,813.46	1,23,918.45	1,17,836.01	95,696.70	88,858.29
CURRENT ASSETS					
Current Investments	7,095.74	7,270.91	7,282.70	13,638.60	13,760.45
Inventories	38,739.11	45,543.85	64,697.37	59,314.39	56,829.20
Trade Receivables	7,548.60	6,758.17	11,023.10	11,254.78	9,725.47
Cash And Cash Equivalents	512.94	111.9	2,608.53	503.29	307.01
Short Term Loans And Advances	732.86	31,451.69	41,574.33	36,824.49	32,525.10
Other Current Assets	16,061.46	4,794.50	7,391.74	6,763.02	7,854.23
Total Current Assets	70,652.15	95,931.02	1,34,577.77	1,28,298.57	1,21,001.46
Total Assets	2,20,504.17	2,19,849.47	2,52,413.78	2,23,995.27	2,09,859.75
OTHER ADDITIONAL INFORMATION					
CONTINGENT LIABILITIES, COMMITMENTS					
Contingent Liabilities	44,150.49	43,297.09	56,409.36	31,715.16	32,666.62
CIF VALUE OF IMPORTS					
Raw Materials	0	1,65,680.94	2,02,592.23	1,84,643.85	1,73,460.46
Stores, Spares And Loose Tools	0	944.32	812.49	679.52	551.75
Capital Goods	0	294.88	429.31	1,102.15	1274.52
EXPENDITURE IN FOREIGN EXCHANGE					
Expenditure In Foreign Currency	0	26,652.38	26,286.49	26,350.30	28,803.38
REMITTANCES IN FOREIGN CURRENCIES FOR DIVIDENDS					
Dividend Remittance In Foreign Currency	-	-	-	-	-
EARNINGS IN FOREIGN EXCHANGE					
FOB Value Of Goods	-	15,667.56	21,524.67	18,549.19	19,618.10
Other Earnings	-	342.43	83.46	9.42	192.9
BONUS DETAILS					
Bonus Equity Share Capital	2,280.27	2,280.27	2,280.27	2,280.27	2,280.27
NON-CURRENT INVESTMENTS					
Non-Current Investments Quoted Market Value	32,031.68	25,454.23	25,934.61	25,394.76	23,238.21
Non-Current Investments Unquoted Book Value	8,830.37	13,358.46	13,021.74	1,254.07	1,139.46
CURRENT INVESTMENTS					
Current Investments Quoted Market Value	-	-	-	-	-
Current Investments Unquoted Book Value	-	7,270.91	7,282.70	13,638.60	13,760.45

Annexures

Balance Sheet of Hindustan Petroleum Corporation Limited	----- in Rs. Cr. -----				
	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12
	12 mths	12 mths	12 mths	12 mths	12 mths
EQUITIES AND LIABILITIES					
SHAREHOLDER'S FUNDS					
Equity Share Capital	339.01	339.01	339.01	339.01	339.01
Total Share Capital	339.01	339.01	339.01	339.01	339.01
Reserves and Surplus	18,017.09	15,683.08	14,673.15	13,387.39	12783.51
Total Reserves and Surplus	18,017.09	15,683.08	14,673.15	13,387.39	12783.51
Total Shareholders Funds	18,356.10	16,022.09	15,012.16	13,726.40	13122.52
NON-CURRENT LIABILITIES					
Long Term Borrowings	10,633.48	14,855.83	15,554.88	8,947.18	6291.37
Deferred Tax Liabilities [Net]	4,810.46	4,103.60	3,908.43	3,598.35	3085.28
Other Long Term Liabilities	9,450.58	8,292.35	7,207.70	6,211.19	5471.27
Long Term Provisions	431.27	581.47	587.66	498.96	436.55
Total Non-Current Liabilities	25,325.79	27,833.25	27,258.67	19,255.68	15284.47
CURRENT LIABILITIES					
Short Term Borrowings	3,888.54	2,199.81	16,375.17	23,511.09	21187.88
Trade Payables	6,587.07	8,935.65	10,651.39	11,036.94	12561.12
Other Current Liabilities	14,587.91	10,162.32	6,538.72	6,914.08	7406.52
Short Term Provisions	1,725.52	2,397.52	1,741.98	1,800.54	1547.04
Total Current Liabilities	26,789.04	23,695.30	35,307.26	43,262.65	42702.56
Total Capital And Liabilities	70,470.93	67,550.64	77,578.09	76,244.73	71109.55
ASSETS					
NON-CURRENT ASSETS					
Tangible Assets	33,211.12	28,852.05	25,797.19	22,441.67	20735.56
Intangible Assets	234.65	210.76	115.05	107.03	114.09
Capital Work-In-Progress	1,876.94	3,474.42	4,585.56	5,172.87	4444.47
Fixed Assets	35,322.71	32,537.23	30,497.80	27,721.57	25294.12
Non-Current Investments	6,000.06	5,867.52	5,735.83	8,266.07	7483.43
Long Term Loans And Advances	1,573.40	1,429.86	1,461.42	1,930.47	1499.28
Other Non-Current Assets	86.03	116.55	146.26	95.98	67.46

Annexures

Balance Sheet of Hindustan Petroleum Corporation Limited	----- in Rs. Cr. -----				
	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12
	12 mths	12 mths	12 mths	12 mths	12 mths
Total Non-Current Assets	42,982.20	39,951.16	37,841.31	38,014.09	34344.29
CURRENT ASSETS					
Current Investments	4,994.62	5,373.96	5,124.04	2,360.86	2887.07
Inventories	12,709.12	12,972.26	18,775.41	16,438.70	19454.53
Trade Receivables	4,192.66	3,603.05	5,465.95	4,935.04	3565.16
Cash And Cash Equivalents	19.69	17.07	34.71	147.13	226.38
Short Term Loans And Advances	5,295.52	5,306.52	10,007.90	14,070.36	10151.31
Other Current Assets	277.12	326.62	328.77	278.55	480.81
Total Current Assets	27,488.73	27,599.48	39,736.78	38,230.64	36765.26
Total Assets	70,470.93	67,550.64	77,578.09	76,244.73	71109.55
OTHER ADDITIONAL INFORMATION					
CONTINGENT LIABILITIES, COMMITMENTS					
Contingent Liabilities	7,340.54	6,572.11	8,687.79	9,018.47	7162.04
CIF VALUE OF IMPORTS					
Raw Materials	28,326.26	46,138.58	57,859.94	56,117.40	51465.12
Stores, Spares And Loose Tools	218.02	297.17	85.03	88.88	63.09
Capital Goods	82.37	32.6	68.91	126.33	100.1
EXPENDITURE IN FOREIGN EXCHANGE					
Expenditure In Foreign Currency	29,216.25	43,451.95	60,560.98	56,145.05	49684.26
REMITTANCES IN FOREIGN CURRENCIES FOR DIVIDENDS					
Dividend Remittance In Foreign Currency	-	-	-	-	-
EARNINGS IN FOREIGN EXCHANGE					
FOB Value Of Goods	1,810.68	5,313.98	4,231.03	6,416.82	7782.48
Other Earnings	-	-	-	-	-
BONUS DETAILS					
Bonus Equity Share Capital	264.43	264.43	264.43	264.43	264.43
NON-CURRENT INVESTMENTS					
Non-Current Investments Quoted Market Value	2,411.69	2,602.18	2,064.87	5,294.97	5280.76
Non-Current Investments Unquoted Book Value	5,264.71	4,850.07	4,718.38	3,732.61	2949.98
CURRENT INVESTMENTS					
Current Investments Quoted Market Value	4,985.67	5,373.96	5,124.03	2,360.86	2887.07
Current Investments Unquoted Book Value	8.95	5.01	-	-	-

Annexures

Balance Sheet of Castrol India Limited	----- in Rs. Cr. -----				
	Dec-15	Dec-14	Dec-13	Dec-12	Dec-11
	12 mths	12 mths	12 mths	12 mths	12 mths
EQUITIES AND LIABILITIES					
SHAREHOLDER'S FUNDS					
Equity Share Capital	247.28	247.28	494.56	494.56	247.28
Total Share Capital	247.28	247.28	494.56	494.56	247.28
Reserves and Surplus	328.33	249.5	256.86	154.67	356.92
Total Reserves and Surplus	328.33	249.5	256.86	154.67	356.92
Total Shareholders Funds	575.61	496.78	751.42	649.23	604.2
NON-CURRENT LIABILITIES					
Other Long Term Liabilities	12.3	11.03	10.83	8.29	12.42
Long Term Provisions	2.64	2.64	2.48	3.43	3.42
Total Non-Current Liabilities	14.94	13.67	13.31	11.72	15.84
CURRENT LIABILITIES					
Trade Payables	549.39	539.86	472.83	436.63	392.73
Other Current Liabilities	148.5	137.35	120.95	118.58	102.94
Short Term Provisions	373.18	304.18	256.5	263.41	277.11
Total Current Liabilities	1,071.07	981.39	850.28	818.62	772.78
Total Capital And Liabilities	1,661.62	1,491.84	1,615.01	1,479.57	1392.82
ASSETS					
NON-CURRENT ASSETS					
Tangible Assets	140.21	162.21	143.22	125.07	110.83
Intangible Assets	8.63	9.86	0.24	1.05	1.69
Capital Work-In-Progress	36.41	15.67	31.87	30.96	29.3
Fixed Assets	185.25	187.74	175.33	157.08	141.82
Deferred Tax Assets [Net]	49.92	61.81	52.96	65.09	56.24
Long Term Loans And Advances	93.24	85.03	87.59	84.85	68.32
Other Non-Current Assets	0	0	0	0.26	0
Total Non-Current Assets	328.41	334.58	315.88	307.28	266.38
CURRENT ASSETS					
Inventories	304.58	365.47	374.01	315.76	300.92
Trade Receivables	236.46	271.5	237.24	219.63	218.95
Cash And Cash Equivalents	696.5	431.45	594.22	574.59	549

Annexures

Balance Sheet of Castrol India Limited	----- in Rs. Cr. -----				
	Dec-15	Dec-14	Dec-13	Dec-12	Dec-11
	12 mths	12 mths	12 mths	12 mths	12 mths
Short Term Loans And Advances	88.97	86.21	86.44	48.02	49.06
Other Current Assets	6.7	2.63	7.22	14.29	8.51
Total Current Assets	1,333.21	1,157.26	1,299.13	1,172.29	1126.44
Total Assets	1,661.62	1,491.84	1,615.01	1,479.57	1392.82
OTHER ADDITIONAL INFORMATION					
CONTINGENT LIABILITIES, COMMITMENTS					
Contingent Liabilities	32	67.08	69.69	79.09	88.77
CIF VALUE OF IMPORTS					
Raw Materials	659.93	828.57	758.79	773.19	777.67
Capital Goods	24.05	13.13	6.63	5.83	6.58
EXPENDITURE IN FOREIGN EXCHANGE					
Expenditure In Foreign Currency	209.55	205.38	163.51	150.8	132.26
REMITTANCES IN FOREIGN CURRENCIES FOR DIVIDENDS					
Dividend Remittance In Foreign Currency	281.04	421.55	245.9	-	-
EARNINGS IN FOREIGN EXCHANGE					
FOB Value Of Goods	2.29	2.79	3.2	4.81	4.91
Other Earnings	13.34	11.13	13.18	16.27	20.67
BONUS DETAILS					
Bonus Equity Share Capital	243.63	243.63	487.27	487.27	239.99
NON-CURRENT INVESTMENTS					
Non-Current Investments Quoted Market Value	-	-	-	-	-
Non-Current Investments Unquoted Book Value	-	-	-	-	-
CURRENT INVESTMENTS					
Current Investments Quoted Market Value	-	-	-	-	-
Current Investments Unquoted Book Value	-	-	-	-	-

Annexures

Balance Sheet of Apar Industries Limited	----- in Rs. Cr. -----				
	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12
	12 mths	12 mths	12 mths	12 mths	12 mths
EQUITIES AND LIABILITIES					
SHAREHOLDER'S FUNDS					
Equity Share Capital	38.5	38.5	38.47	38.47	35.97
Total Share Capital	38.5	38.5	38.47	38.47	35.97
Reserves and Surplus	820.77	691.31	657.75	588.16	484.84
Total Reserves and Surplus	820.77	691.31	657.75	588.16	484.84
Total Shareholders Funds	859.27	729.81	696.22	626.63	520.82
Minority Interest	1.71	1.21	1.82	1.78	1.16
NON-CURRENT LIABILITIES					
Long Term Borrowings	83.7	94.79	70.13	32.94	34.65
Deferred Tax Liabilities [Net]	31.27	27.44	22.46	10.31	13.11
Other Long Term Liabilities	2.28	2.19	6.65	13.79	41.05
Long Term Provisions	3.54	4.01	3.07	2.81	2.62
Total Non-Current Liabilities	120.79	128.43	102.31	59.85	91.43
CURRENT LIABILITIES					
Short Term Borrowings	263.8	386.67	707.99	940.32	948.97
Trade Payables	1,405.51	1,573.01	1,367.26	1,305.40	840.04
Other Current Liabilities	139.1	121.03	98.07	300.21	409.13
Short Term Provisions	2.38	15.76	24.32	24.25	18.95
Total Current Liabilities	1,810.79	2,096.47	2,197.64	2,570.18	2217.09
Total Capital And Liabilities	2,792.56	2,955.92	2,997.99	3,258.44	2833
ASSETS					
NON-CURRENT ASSETS					
Tangible Assets	385.08	369.48	334.92	239.86	183.45
Intangible Assets	12.77	3.36	3.11	2.72	1.53
Capital Work-In-Progress	56.11	10.24	18.08	45.1	21.29
Intangible Assets Under Development	0	0	0	0.28	0.35
Fixed Assets	453.96	383.08	356.11	287.96	206.62
Long Term Loans And Advances	76.55	44.79	45.32	50.03	45.5
Other Non-Current Assets	0	0	0	0	0
Total Non-Current Assets	530.51	449.59	422.08	358.64	252.14

Annexures

Balance Sheet of Apar Industries Limited	----- in Rs. Cr. -----				
	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12
	12 mths	12 mths	12 mths	12 mths	12 mths
CURRENT ASSETS					
Current Investments	109.07	5.26	1.5	79.62	-
Inventories	774.89	944.25	1,017.04	751.48	683.53
Trade Receivables	1,088.84	1,267.00	1,103.57	813.78	865.35
Cash And Cash Equivalents	136.96	100.47	230.61	1,054.93	831.94
Short Term Loans And Advances	147.17	150.73	174.84	133.46	145.58
Other Current Assets	5.12	38.62	48.35	66.53	54.46
Total Current Assets	2,262.05	2,506.33	2,575.91	2,899.80	2580.86
Total Assets	2,792.56	2,955.92	2,997.99	3,258.44	2833
OTHER ADDITIONAL INFORMATION					
CONTINGENT LIABILITIES, COMMITMENTS					
Contingent Liabilities	174.72	118.11	316.91	271.08	222.06
BONUS DETAILS					
Bonus Equity Share Capital	8.08	8.08	8.08	8.08	8.08
NON-CURRENT INVESTMENTS					
CURRENT INVESTMENTS					
Current Investments Quoted Market Value	109.24	5.59	1.6	80.52	-

Annexures

Indian Oil Corporation Limited	----- in Rs. Cr. -----				
Profit & Loss account	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12
	12 mths	12 mths	12 mths	12 mths	12 mths
INCOME					
Revenue From Operations [Gross]	3,99,105.49	4,50,755.58	4,57,571.10	4,14,919.05	3,73,942.54
Less: Excise/Service Tax/Other Levies	59,651.56	30,407.77	23,904.04	23,554.18	24,455.59
Revenue From Operations [Net]	3,39,453.93	4,20,347.81	4,33,667.06	3,91,364.87	3,49,486.95
Other Operating Revenues	7,722.50	17,178.32	39,543.03	55,731.54	48,989.68
Total Operating Revenues	3,47,176.43	4,37,526.13	4,73,210.09	4,47,096.41	3,98,476.63
Other Income	2,322.16	4,144.05	3,417.29	3,514.79	3,199.05
Total Revenue	3,49,498.59	4,41,670.18	4,76,627.38	4,50,611.20	4,01,675.68
EXPENSES					
Cost Of Materials Consumed	1,42,265.53	2,05,049.94	2,27,012.01	2,19,744.05	2,02,280.49
Purchase Of Stock-In Trade	1,43,628.81	1,77,533.90	1,96,237.15	1,88,182.20	1,54,793.50
Changes In Inventories Of FG,WIP And Stock-In Trade	3,479.20	8,216.07	-1,153.00	-5,220.03	-2,852.13
Employee Benefit Expenses	7,114.02	7,104.78	6,618.97	7,271.27	4,976.96
Finance Costs	3,089.89	3,435.27	5,084.42	6,409.15	5,590.54
Depreciation And Amortisation Expenses	4,818.57	4,528.66	5,760.09	5,200.99	4,867.79
Other Expenses	29,640.28	29,466.80	28,792.73	23,382.07	20,835.19
Total Expenses	3,34,036.30	4,35,335.42	4,68,352.37	4,44,969.70	3,90,492.34
Profit/Loss Before Exceptional, Extra Ordinary Items And Tax	15,462.29	6,334.76	8,275.01	5,641.50	11,183.34
Exceptional Items	1,364.25	1,668.09	1,746.80	0	-7,707.82
Profit/Loss Before Tax	16,826.54	8,002.85	10,021.81	5,641.50	3,475.52
Tax Expenses-Continued Operations					
Current Tax	3,747.89	1,262.98	2,802.90	821.94	894.40
Less: MAT Credit Entitlement	0	138.11	0	450.09	0.00
Deferred Tax	1,836.42	1,597.39	103.52	270.78	-1,094.71

Annexures

Indian Oil Corporation Limited	----- in Rs. Cr. -----				
Profit & Loss account	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12
	12 mths	12 mths	12 mths	12 mths	12 mths
Total Tax Expenses	5,584.31	2,722.26	2,906.42	642.63	-200.31
Profit/Loss After Tax And Before Extra Ordinary Items	11,242.23	5,280.59	7,115.39	4,998.87	3,675.83
Prior Period Items	0	-7.56	-96.3	6.3	278.79
Profit/Loss From Continuing Operations	11,242.23	5,273.03	7,019.09	5,005.17	3,954.62
Profit/Loss For The Period	11,242.23	5,273.03	7,019.09	5,005.17	3,954.62
OTHER ADDITIONAL INFORMATION					
EARNINGS PER SHARE					
Basic EPS (Rs.)	23.72	22	29	21	16
Diluted EPS (Rs.)	23.72	22	29	21	16
DIVIDEND AND DIVIDEND PERCENTAGE					
Equity Share Dividend	2,867.53	1,602.45	2,112.32	1,505.33	1,213.98
Tax On Dividend	585.74	326.22	358.99	255.83	194.43
Equity Dividend Rate (%)	140	66	87	62	50

Annexures

Hindustan Petroleum Corporation Limited	----- in Rs. Cr. -----				
Profit & Loss account	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12
	12 mths	12 mths	12 mths	12 mths	12 mths
INCOME					
Revenue From Operations [Gross]	1,97,744.28	2,17,061.11	2,32,188.35	2,15,675.49	188130.95
Less: Excise/Service Tax/Other Levies	18,463.21	10,680.74	9,151.68	9,146.15	9991.72
Revenue From Operations [Net]	1,79,281.07	2,06,380.37	2,23,036.67	2,06,529.34	178335.82
Other Operating Revenues	290.12	245.81	234.66	201.92	196.59
Total Operating Revenues	1,79,571.19	2,06,626.18	2,23,271.33	2,06,731.26	178335.82
Other Income	1,138.05	1,168.41	974.45	1,102.36	1025.59
Total Revenue	1,80,709.24	2,07,794.59	2,24,245.78	2,07,833.62	179361.41
EXPENSES					
Cost Of Materials Consumed	40,523.83	56,158.44	61,962.49	63,182.61	56943.23
Purchase Of Stock-In Trade	1,15,948.43	1,29,278.36	1,45,137.95	1,28,178.60	109370.73
Operating And Direct Expenses	5,675.83	5,257.28	5,056.48	4,023.36	3532.55
Changes In Inventories Of FG,WIP And Stock-In Trade	1,757.39	4,788.80	-547.87	581.91	-1223.98
Employee Benefit Expenses	2,314.53	2,414.66	2,030.30	2,525.56	1583.1
Finance Costs	640.14	706.59	1,336.36	2,019.33	2224.27
Depreciation And Amortisation Expenses	2,659.44	1,978.76	2,201.94	1,983.52	1712.93
Other Expenses	5,446.04	3,062.05	4,394.25	3,977.56	3998.85
Total Expenses	1,74,965.63	2,03,644.94	2,21,571.90	2,06,472.45	178141.68
Profit/Loss Before Exceptional, Extra Ordinary Items And Tax	5,743.61	4,149.65	2,673.88	1,361.17	1219.73
Profit/Loss Before Tax	5,743.61	4,149.65	2,673.88	1,361.17	1219.73
Tax Expenses-Continued Operations					
Current Tax	1,429.93	1,015.56	744.17	250.58	396.65
Less: MAT Credit Entitlement	0	0	0	61.06	0
Deferred Tax	565.78	432.77	117.75	440.95	6.94

Annexures

Hindustan Petroleum Corporation Limited	----- in Rs. Cr. -----				
Profit & Loss account	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12
	12 mths	12 mths	12 mths	12 mths	12 mths
Tax For Earlier Years	-120.38	-27.47	19.82	-60.62	-95.78
Total Tax Expenses	1,875.33	1,420.86	881.74	569.85	307.81
Profit/Loss After Tax And Before Extra Ordinary Items	3,868.28	2,728.79	1,792.14	791.32	911.92
Prior Period Items	-5.54	4.47	-58.37	113.39	-0.49
Profit/Loss From Continuing Operations	3,862.74	2,733.26	1,733.77	904.71	911.43
Profit/Loss For The Period	3,862.74	2,733.26	1,733.77	904.71	911.43
OTHER ADDITIONAL INFORMATION					
EARNINGS PER SHARE					
Basic EPS (Rs.)	114.07	80.72	51.2	26.72	26.92
Diluted EPS (Rs.)	114.07	80.72	51.2	26.72	26.92
VALUE OF IMPORTED AND INDIGENIOUS RAW MATERIALS					
Imported Raw Materials	28,758.86	46,213.02	57,479.67	55,934.50	50827.61
Indigenous Raw Materials	13,492.38	11,725.40	6,268.18	9,074.08	8160.44
STORES, SPARES AND LOOSE TOOLS					
Imported Stores And Spares	86.89	75.61	61.49	64.78	40.71
Indigenous Stores And Spares	247.62	229.45	148.64	72.58	73.48
DIVIDEND AND DIVIDEND PERCENTAGE					
Equity Share Dividend	1,168.26	829.64	524.87	287.83	287.83
Tax On Dividend	237.83	168.89	89.2	48.92	46.7
Equity Dividend Rate (%)	345	245	155	85	85

Annexures

Castrol India Limited Profit & Loss account	----- in Rs. Cr. -----				
	Dec-15	Dec-14	Dec-13	Dec-12	Dec-11
	12 mths	12 mths	12 mths	12 mths	12 mths
INCOME					
Revenue From Operations [Gross]	3,778.72	3,907.08	3,663.97	3,592.96	3425.19
Less: Excise/Service Tax/Other Levies	493.39	526.29	497.88	484.52	445.96
Revenue From Operations [Net]	3,285.33	3,380.79	3,166.09	3,108.44	2979.23
Other Operating Revenues	12.7	11.54	13.53	12.42	14.04
Total Operating Revenues	3,298.03	3,392.33	3,179.62	3,120.86	2993.27
Other Income	95.87	48.1	83.64	72.18	73.09
Total Revenue	3,393.90	3,440.43	3,263.26	3,193.04	3066.36
EXPENSES					
Cost Of Materials Consumed	1,388.38	1,760.46	1,681.42	1,689.44	1595.48
Purchase Of Stock-In Trade	197.6	160.23	138.47	146.83	125.82
Changes In Inventories Of FG,WIP And Stock-In Trade	14.81	16.81	-31.42	-12	-26.81
Employee Benefit Expenses	176.59	161.56	145.97	128.4	115.9
Finance Costs	0.83	2.38	1.71	1.83	1.68
Depreciation And Amortisation Expenses	38.97	36.13	30.45	26.64	25.11
Other Expenses	625.77	576.55	557.7	545.58	513.23
Total Expenses	2,442.95	2,714.12	2,524.30	2,526.72	2350.41
Profit/Loss Before Exceptional, Extra Ordinary Items And Tax	950.95	726.31	738.96	666.32	715.95
Exceptional Items	0	0	22.8	0	0
Profit/Loss Before Tax	950.95	726.31	761.76	666.32	715.95
Tax Expenses-Continued Operations					
Current Tax	323.8	260.6	241.06	227.78	255.44
Deferred Tax	11.89	-8.85	12.13	-8.85	-19.13
Total Tax Expenses	335.69	251.75	253.19	218.93	234.92
Profit/Loss After Tax And Before Extra Ordinary Items	615.26	474.56	508.57	447.39	481.03
Profit/Loss From Continuing Operations	615.26	474.56	508.57	447.39	481.03

Annexures

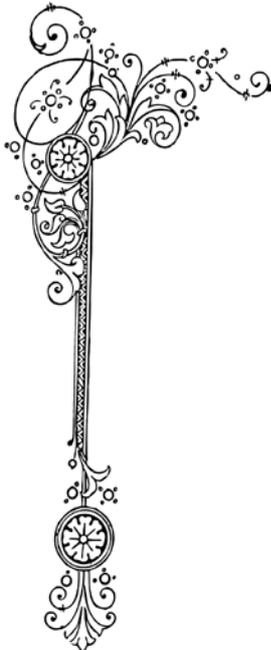
Castrol India Limited	----- in Rs. Cr. -----				
	Dec-15	Dec-14	Dec-13	Dec-12	Dec-11
Profit & Loss account	12 mths	12 mths	12 mths	12 mths	12 mths
Profit/Loss For The Period	615.26	474.56	508.57	447.39	481.03
OTHER ADDITIONAL INFORMATION					
EARNINGS PER SHARE					
Basic EPS (Rs.)	12.44	9.6	10.28	9.05	9.73
Diluted EPS (Rs.)	12.44	9.6	10.28	9.05	9.73
VALUE OF IMPORTED AND INDIGENIOUS RAW MATERIALS					
Imported Raw Materials	757.81	944.59	887.55	919.4	882.74
Indigenous Raw Materials	630.57	557.28	602.25	595.15	556.41
DIVIDEND AND DIVIDEND PERCENTAGE					
Equity Share Dividend	445.1	370.92	346.2	346.2	370.92
Tax On Dividend	90.61	68.97	58.84	56.16	60.17
Equity Dividend Rate (%)	180	150	70	105	150

Annexures

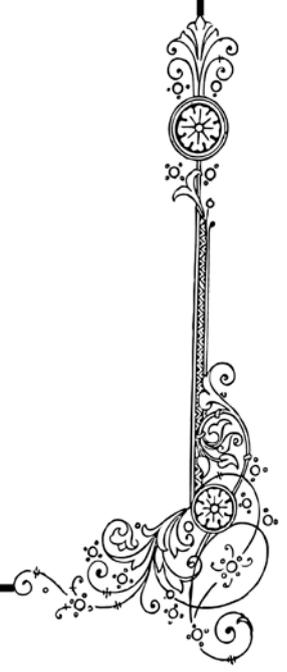
Apar Industries Limited	----- in Rs. Cr. -----				
Profit & Loss account	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12
	12 mths	12 mths	12 mths	12 mths	12 mths
INCOME					
Revenue From Operations [Gross]	5,465.61	5,455.97	4,906.12	4,860.56	3881.8
Less: Excise/Service Tax/Other Levies	472.88	487.29	471.92	362.9	319.58
Revenue From Operations [Net]	4,992.73	4,968.68	4,434.20	4,497.66	3562.23
Other Operating Revenues	31.63	42.29	49	34.53	34.4
Total Operating Revenues	5,024.36	5,010.97	4,483.20	4,532.19	3596.63
Other Income	9.92	8.37	4.47	7.7	0.71
Total Revenue	5,034.28	5,019.34	4,487.67	4,539.89	3597.34
EXPENSES					
Cost Of Materials Consumed	3,735.66	4,012.35	3,500.42	3,554.66	2945.43
Purchase Of Stock-In Trade	68.18	63.37	77.35	29.33	10.74
Changes In Inventories Of FG,WIP And Stock-In Trade	53.72	-89.79	-7.72	-19.7	-61.56
Employee Benefit Expenses	90.27	69.98	59.17	51.81	47.82
Finance Costs	157.33	150.09	145.81	134.31	115.53
Depreciation And Amortisation Expenses	37.69	31.04	26.89	23.86	21.77
Other Expenses	719.28	713.83	585.57	620.7	438.9
Less: Amounts Transfer To Capital Accounts	0.48	0.01	3.51	0	0
Total Expenses	4,861.65	4,950.86	4,383.98	4,394.97	3518.63
Profit/Loss Before Exceptional, Extra Ordinary Items And Tax	172.63	68.48	103.69	144.92	78.71
Exceptional Items	0	-0.25	-0.86	-4.62	-1.96
Profit/Loss Before Tax	172.63	68.23	102.83	140.3	76.75
Tax Expenses-Continued Operations					
Current Tax	55.73	13.66	23.48	39	15.58
Deferred Tax	5.07	6.49	11.57	-0.86	-4.05
Tax For Earlier Years	-3.87	0.22	-1.01	0	-9.88
Total Tax Expenses	56.93	20.37	34.04	38.14	2.65
Profit/Loss After Tax And Before Extra Ordinary Items	115.7	47.86	68.79	102.16	74.1

Annexures

Apar Industries Limited	----- in Rs. Cr. -----				
Profit & Loss account	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12
	12 mths	12 mths	12 mths	12 mths	12 mths
Profit/Loss From Continuing Operations	115.7	47.86	68.79	102.16	74.1
Profit/Loss For The Period	115.7	47.86	68.79	102.16	74.1
OTHER ADDITIONAL INFORMATION					
EARNINGS PER SHARE					
Basic EPS (Rs.)	30.88	12.44	17.88	26.56	19
Diluted EPS (Rs.)	30.88	12.44	17.88	26.56	19
VALUE OF IMPORTED AND INDIGENIOUS RAW MATERIALS					
Imported Raw Materials	2,465.53	3,231.77	2,900.94	2,254.53	-
Indigenous Raw Materials	1,270.13	780.58	599.48	1,300.12	-
STORES, SPARES AND LOOSE TOOLS					
Imported Stores And Spares	3.33	2.68	1.72	0.33	-
Indigenous Stores And Spares	20.39	17.9	12	13.19	-
DIVIDEND AND DIVIDEND PERCENTAGE					
Equity Share Dividend	44.98	13.47	20.2	20.2	15.39
Tax On Dividend	0	1.42	3.43	3.43	2.5
Equity Dividend Rate (%)	65	35	53	53	-



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Indexed In : Indian Citation Index(ICI) / International Institute of Organized Research (I2OR) / Cosmos Foundation / General Impact Factor / Research Bible / International Society for Research Activity (ISRAJIF) / International Accreditation and Research Council (IARC/JCRR) / Cite Factor / Academic Keys / Scientific World Index (SCIWIN) / International Innovative Journal Impact Factor (IIJIF) / Scientific Journal Impact Factor (SJIF) / Journal Factor / Scholar Steer

Impact Factor : Cosmos Foundation 4.301
International Institute of Organized Research (I2OR) 3.506
General Impact Factor 1.9846

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Value Added Statement Analysis of Castrol India Limited

Gurneet Mokha

Keywords: Value Added, Financial Performance, Cost of Bought-in-Goods and Services, Value Added Ratios, Value Added Reporting.

Abstract

The value of a business enterprise to the society is called its social Responsibility. In this context, Meinolf and Raymond wrote, "A good deal of research and experimentation are now being conducted to devise techniques which measure the contribution that an enterprise makes, to the society". These definitions explain us that companies have their social responsibility too and so their corporate social responsibility should not be poor. The entire business organisation is either directly or indirectly connected with the society. As the business organisations are using the resources of the society, so they are equal responsible for the upliftment of then society. The resources of the society which the business owns are the 4Ms: man, material, machinery, money. So it is the duty of the business organisations to utilize all these goods in the benefit of the society. In fact there is no fundamental difference between the interest of the society and the interest of the individual business entity. So fulfilling the needs of the society itself means the fulfilling the

In this subject we have tried to show how and to what extent, the VAS can supplement additional financial information to satisfy all the stakeholders of the enterprise. Case study of Castrol India Limited for six years has also been provided in which performance, productivity, targets of profit and the relationship between the concerned variables have been discussed through Time Series Analysis and Ratio Analysis. The study provides financial information in a better way and it is very much useful to judge the performance and productivity of an enterprise for managerial decision-making.

Gurneet Mokha, Research Scholar,
University of Kota, Kota, Rajasthan, India

Introduction

Castrol is the world's leading manufacturer, marketer of premium lubricants oils and greases, distributor and provided the services related to automotive, industrial, aviation, oil exploration, marine and production to the customers across the globe, HQ located in the UK operates directly in 46+ countries with 7500+ supporting staff worldwide. It has third party distributors who market and sell the products locally in 74+ other countries. It has delivery network which extends throughout 120 countries already covering 800 ports partnering with 2000+ distributors and agents.

It offers varieties of lubricants for domestic, industrial and commercial applications like for automotive lubrication which includes motorcycles 2-stroke/ 4-stroke engines, car petrol/diesel engines it provides extensive range of manual and automatic transmission fluids, coolants, suspension fluids, chain lubricants, brake fluids along with maintenance products. It also produce the products for agricultural machinery, marine engineering and for general industries. Almost all products have a global chemical registration status meeting the compliance in all different locations wherever the product is used.

- Automotive Lubricants- Developed for supplying lubricants, consumers, specialties such as gear oils, greases, and ancillary products. It also serves the services to cars, motorcycles, commercial vehicles which includes the heavy duty consumer trucks, mining, agriculture vehicles etc.

- Aviation, industrial, marine and energy lubricants- Developed for the B2B community, supplying solutions to industries as manufacturing, mining, shipping, aviation, oil and exploration. The global business operations for the lubricants provide the worldwide assurance and improved productivity and environmental products. It also delivers trusted advice focused on optimizing our customer's business process of production.

Castrol has 7 R&D centres across the globe which helps in pioneering technology to develop and test hundreds of innovative products every year. People work closely with leading industries OEMs to whom Castrol supplies a broad range of products in lubricants category designed especially for operating conditions and environment specific to the business. The varieties of products developed here are recommended by the big giants and co-engineered with major OEMs- Audi, Ford, BMW, MAN, JLR, Honda, Volvo, Skoda, Seat, Tata and Volkswagen for their innovative 'new to the world' power trains. (<https://www.indiamart.com/proddetail/castrol-manual-gl4-engine-oil-13833595030.html?src=Renq>)

In 1910, History of Castrol India dates back when few automotive lubricants from C.C. Wake filed and company made an entry to the Indian Lubricant market which set up its first overseas branch office in Mumbai as a trading unit. Over 100 years, Castrol has a proud heritage of success and innovations and it becomes the leading automotive and industrial lubricants manufacturing and marketing organization in India named as Castrol India Limited. It is public limited company with 51% of share held by BP Group/ Castrol Limited UK through its wholly-owned subsidiary where Castrol Limited and balance being held by the general public; including 3 manufacturing plants at Patalganga, Paharpur and Silvassa. Three plants serving a distribution network of 105k retail outlets, B2B customers through 420+ distributors. (<https://www.indiamart.com/proddetail/castrol-manual-gl4-engine-oil-13833595030.html?src=Renq>)

It provides a high performance range of products and services across the segments- industrial, automotive, marine and energy. Castrol is the market leader in Retail Automotives providing iconic and high performance brands like Castrol MAGNATEC, GTX and EDGE for passenger 4-wheelers, Castrol Active and Power1 for 2-wheelers and Castrol CRB, RC and VECTON for heavy vehicles. Castrol also offers the products range for industrial applications and is also market leader in corrosion preventives and metal cutting fluids. Castrol India works very closely with OEMs leaders; supplying lubricants specially designed for specific operating conditions and environments which is recommended by and co-engineered with major OEM in the lubricant sector. Castrol provides wide range of products by offering quality high performance innovative products backed by high levels of customer services.

Scope of the Study

For the present study, Castrol India Limited, a private sector company which is mainly engaged in manufacturing of Lubricant oil is selected on the basis of capital employed and a period of six years (from 2011 to 2016) is taken for the study. The value added analysis has been done to find out the responsibility of the company towards society.

Research Methodology and Design

For the value added analysis, the data is collected primarily from the annual reports of the selected

company . For evaluation, the performance techniques of financial analysis and interpretation such as ratio analysis, trend analysis are also used.

Analysis and Findings

1. VAS Analysis

The statement showing GVA and NVA figures of CASTROL are shown in Table below. It clearly reveals from the table that figures of NVA have been increasing with a little downfall in between. But the point which is worth noticing is that in last two years materials used has decreased where as there is increase in value added. Company is using its resources very efficiently to make most of its materials used. In year 2011, value of production was 3466.04 and materials used were 2167.26 whereas in 2016 value of production was 3890.94 and materials used were 2052.20.

VALUE ADDED STATEMENT - CASTROL

<i>Particulars</i>	<i>31.12.2011</i>	<i>31.12.2012</i>	<i>31.12.2013</i>	<i>31.12.2014</i>	<i>31.12.2015</i>	<i>31.12.2016</i>
Generation of Value Added:						
Sales of Product and Services	3439.23	3605.38	3677.50	3918.62	3791.42	3875.96
Change In Stock	26.81	12.00	31.42	-16.81	-14.81	14.98
Value Of Production (VP)	3466.04	3617.38	3708.92	3901.81	3776.61	3890.94
VP Indices	100.00	104.37	107.01	112.57	108.96	112.26
Other Income	73.09	72.18	83.64	48.10	95.87	87.27
Gross Output	3539.13	3689.56	3792.56	3949.91	3872.48	3978.21
Less: Bought In Goods and Services Purchased						
Materials Used	2167.26	2320.79	2317.77	2446.98	2079.37	2052.20
Other Expenditure	513.23	545.58	534.90	576.55	625.77	661.31
Gross Value Added (GVA)	858.64	823.19	939.89	926.38	1167.34	1264.70
GVA Indices	100.00	95.87	109.46	107.89	135.95	147.29
Depreciation Charged	25.11	26.64	30.45	36.13	38.97	44.96
Net Value Added (NVA)	833.53	796.55	909.44	890.25	1128.37	1219.74
NVA Indices	100.00	95.56	109.11	106.80	135.37	146.33
Distribution Of NVA:						
To Workers/Employees (Staff Cost)	115.90	128.40	145.97	161.56	176.59	172.56
To Providers Of Capital (Loan Interest)	1.68	1.83	1.71	2.38	0.83	1.48

<i>Particulars</i>	<i>31.12.2011</i>	<i>31.12.2012</i>	<i>31.12.2013</i>	<i>31.12.2014</i>	<i>31.12.2015</i>	<i>31.12.2016</i>
To Government (Tax)	234.92	218.93	253.19	251.75	335.69	370.79
To Owners (Dividend and Retained Earnings)	481.03	447.39	508.57	474.56	615.26	674.91
Net Value Added (NVA)	833.53	796.55	909.44	890.25	1128.37	1219.74
Distribution Of NVA in %:						
To Workers/Employees (Staff Cost)	13.90	16.12	16.05	18.15	15.65	14.15
To Providers Of Capital (Loan Interest)	0.20	0.23	0.19	0.27	0.07	0.12
To Government (Tax)	28.18	27.48	27.84	28.28	29.75	30.40
To Owners (Dividend and Retained Earnings)	57.71	56.17	55.92	53.31	54.53	55.33
Net Value Added (NVA)	100.00	100.00	100.00	100.00	100.00	100.00

The above table shows that with the increase in value of production and value added, there is constant increase in value distributed to employees. There are slight changes in percentage of distribution to employees but value towards employees have been constantly increasing with the increase in value added.

Employees' share of NVA was 13.90% in 2011 and it increased to 14.15% in 2016. The retained earnings, a portion of owners' share, is very much important for growth and expansion of business. Company is following a strategy in which it is evenly distributing value added among stakeholders. This is a fine approach and believes that a company grows when its stakeholders grow and not only shareholders grow.

2. Time Series Analysis

We can fit straight trend line equations by using the time series data from VAS relating to GVA and NVA with the help of least square method, and then from the straight trend line equations of GVA and NVA we can obtain the estimated figures of GVA and NVA (i.e. Trend Values) for the given time points (i.e. past period) and also for future time points simply by putting the x-values correspond to the different time points (either past or future periods). The trend values relating to GVA and NVA on different given time points are shown respectively in Tables below.

Table-1: Trend Values of GVA for the Period of Six Years

<i>Year</i>	<i>X - Values</i>	<i>GVA</i>	<i>x²</i>	<i>xy</i>	<i>Trend Values</i>
2010-11	-5	858.64	25.00	-4293.20	778.89
2011-12	-3	823.19	9.00	-2469.57	866.01
2012-13	-1	939.89	1.00	-939.89	953.13
2013-14	1	926.38	1.00	926.38	1040.25
2014-15	3	1167.34	9.00	3502.02	1127.37
2015-16	5	1264.70	25.00	6323.50	1214.49
Total	0	5980.14	70.00	3049.24	-

Straight trend line equation: $y = 996.69 + 43.56x$ (1 unit of $x = 6$ months). Using the least squares method fits trend line equation.

Table-2: Trend Values of NVA for the Period of 6 Years

<i>Year</i>	<i>X - Values</i>	<i>GVA</i>	<i>x²</i>	<i>xy</i>	<i>Trend Values</i>
2010-11	-5	833.53	25.00	-4167.65	755.31
2011-12	-3	796.55	9.00	-2389.65	838.38
2012-13	-1	909.44	1.00	-909.44	921.45
2013-14	1	890.25	1.00	890.25	1004.51
2014-15	3	1128.37	9.00	3385.11	1087.58
2015-16	5	1219.74	25.00	6098.70	1170.65
Total	0	5777.88	70.00	2907.32	-

Straight trend line equation: $z = 962.98 + 41.53x$ (1 unit of $x = 6$ months).
Using the least squares method fits trend line equation.

The fitted trend line equations relating to GVA and NVA are:

$$y = 996.69 + 43.56x \dots\dots\dots (1) \text{ and}$$

$$z = 962.98 + 41.53x \dots\dots\dots (2) \text{ respectively.}$$

3. Ratio Analysis

For appraising the performance and judging the productivity following ratios are considered for analysis:

- a. Value added to Sales Ratio reveals that company is making a huge percentage of value added with respect to sales in this sector. This ratio have also increased over the time.

- b. Net Profit to Value added Ratio reveals that the company is maintaining a high amount to be held for expansion. This might be reason for company's high Value added to sales ratio above.
- c. Value added to Materials Cost focuses the material productivity of the enterprise. High ration in this case means that company is expending less in indirect expenses and more focused upon productivity.

Particulars	Set of Ratios	2011	2012	2013	2014	2015	2016
Value added to Sales Ratio	GVA to Sales	0.250	0.228	0.256	0.236	0.308	0.326
	NVA to Sales	0.242	0.221	0.247	0.227	0.298	0.315
Net Profit to Value added Ratio	Net Profit to GVA	0.560	0.543	0.541	0.512	0.527	0.534
	Net Profit to NVA	0.577	0.562	0.559	0.533	0.545	0.553
Value added to Value Of Production Ratio	GVA to Material cost	0.396	0.355	0.406	0.379	0.561	0.616
	NVA to Material cost	0.385	0.343	0.392	0.364	0.543	0.594

4. Other Key Financial Ratios:-

Per Share Ratios	Dec 16	Dec 15	Dec 14	Dec 13	Dec 12
Basic EPS (Rs.)	13.65	12.44	9.60	10.28	9.05
Diluted EPS (Rs.)	13.65	12.44	9.60	10.28	9.05
Cash EPS (Rs.)	14.56	13.23	10.33	10.90	9.58
Book Value [ExclRevalReserve]/Share (Rs.)	12.05	11.64	10.04	15.19	13.13
Book Value [InclRevalReserve]/Share (Rs.)	12.05	11.64	10.04	15.19	13.13
Dividend / Share(Rs.)	11.00	9.00	7.50	7.00	10.50
Revenue from Operations/Share (Rs.)	68.15	66.69	68.59	64.29	63.10
PBDIT/Share (Rs.)	22.08	20.03	15.46	15.59	14.05
PBIT/Share (Rs.)	21.17	19.24	14.73	14.98	13.51
PBT/Share (Rs.)	21.14	19.23	14.69	15.40	13.47
Net Profit/Share (Rs.)	13.65	12.44	9.60	10.28	9.05
Profitability Ratios					
PBDIT Margin (%)	32.40	30.04	22.54	24.25	22.26
PBIT Margin (%)	31.07	28.85	21.48	23.29	21.40
PBT Margin (%)	31.02	28.83	21.41	23.95	21.35
Net Profit Margin (%)	20.02	18.65	13.98	15.99	14.33
Return on Network / Equity (%)	113.28	106.88	95.52	67.68	68.91
Return on Capital Employed (%)	110.67	104.18	92.96	66.50	67.68

<i>Per Share Ratios</i>	<i>Dec 16</i>	<i>Dec 15</i>	<i>Dec 14</i>	<i>Dec 13</i>	<i>Dec 12</i>
Return on Assets (%)	35.76	37.02	31.81	31.49	30.23
Asset Turnover Ratio (%)	178.58	198.48	227.39	196.87	210.93
Liquidity Ratios					
Current Ratio (X)	1.21	1.24	1.18	1.53	1.43
Quick Ratio (X)	0.94	0.96	0.81	1.09	1.05
Inventory Turnover Ratio (X)	9.80	10.83	9.28	8.50	9.88
Dividend Payout Ratio (NP) (%)	80.60	72.34	78.16	68.07	77.38
Dividend Payout Ratio (CP) (%)	75.57	68.03	72.63	64.22	73.03
Earnings Retention Ratio (%)	19.40	27.66	21.84	31.93	22.62
Cash Earnings Retention Ratio (%)	24.43	31.97	27.37	35.78	26.97
Valuation Ratios					
Enterprise Value (Cr.)	17,993.66	21,158.11	24,365.79	14,724.78	14,168.24
EV/Net Operating Revenue (X)	5.34	6.42	7.18	4.63	4.54
EV/EBITDA (X)	16.48	21.36	31.86	19.10	20.39
MarketCap/Net Operating Revenue (X)	5.58	6.63	7.31	4.82	4.72
Retention Ratios (%)	19.39	27.65	21.83	31.92	22.61
Price/BV (X)	31.58	37.97	49.92	20.39	22.71
Price/Net Operating Revenue	5.58	6.63	7.31	4.82	4.72
Earnings Yield	0.04	0.03	0.02	0.03	0.03

Conclusion

The companies having a decreasing trend are well advised to take measures on cost of bought-in-goods and as well on cost of services obtained. On the other hand, the companies should check their cost of capital work in progress so as to have an effective control over excessive capital employed. All these steps may be the cause of getting the ratio increased.

It is also suggested that companies should try to maintain and increase the value added from the increase of salaries paid to employees, through better utilisation of manpower resources.

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Vol. 14 Number 2

July - December 2017

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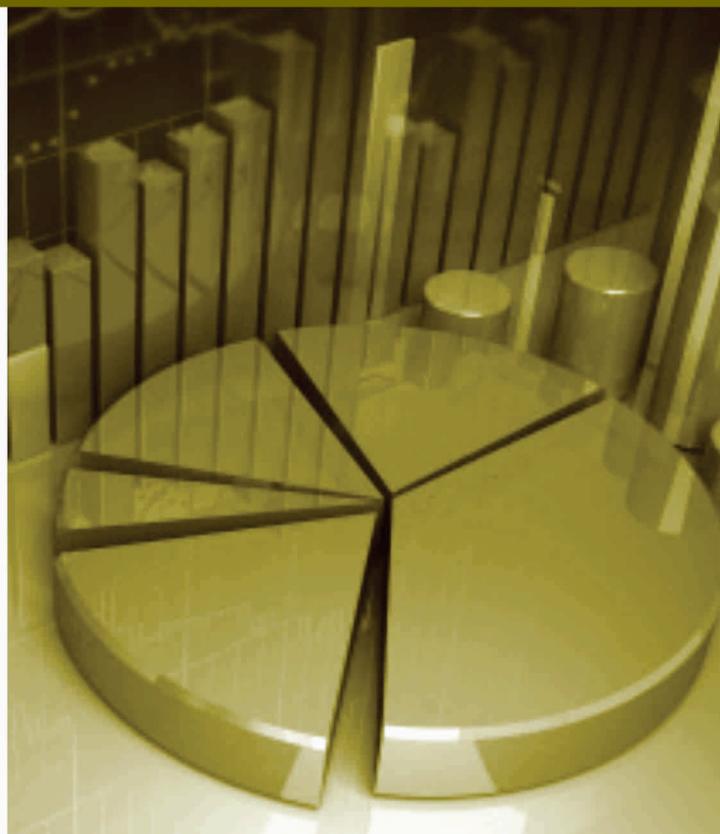
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Journal of Banking, IT & Management

ISSN 0972-902X



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The 'Journal of Banking, Information technology & management' is a research journal published in July and December every year. It is a refereed international peer-reviewed journal with the review process being double blind.

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Indexed In : Indian Citation Index(ICI) / International Institute of Organized Research (I2OR) / Global Impact Factor / Cosmos Foundation / General Impact Factor / Research Bible / International Society for Research Activity (ISRAJIF) / International Accreditation and Research Council (IARC/JCRR) / Cite Factor / Academic Keys / Scientific World Index (SCIWIN) / International Innovative Journal Impact Factor (IIJIF) / Scientific Journal Impact Factor (SJIF) / World Cat / Connect Journals / Journal Factor / Eurasian Scientific Journal Index (ESJI)

Impact Factor : Cosmos Foundation	4.434
International Institute of Organized Research (I2OR)	4.876
General Impact Factor	2.2991
Global Impact Factor	0.831

Journal of Banking, Information Technology and Management

A REFEREED INTERNATIONAL JOURNAL OF RESEARCH DEVELOPMENT RESEARCH FOUNDATION

Vol. 14

No. 2

July-December 2017

ISSN 0972-902X

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Profitability Analysis Of Hindustan Petroleum Corporation Limited

Gurneet Mokha

Abstract

According to Hermanson Edward and Salmonson, "Profitability is the relationship of income to some balance sheet measure which indicates the relative ability to earn income on assets employed." (Hermanson, 1983)

Profitability basically indicates the efficiency of the business. It is the ability of the firm to earn profits from all the activities and the operations of the business are carried out on the basis of profitability. It also tells how the business is utilizing its resources in an efficient manner. Profitability is the earning capability of the business. It is very important for a business to increase its earnings so as to continue its operations. The capability to earn is also known as the "earning performance of the business". So it is always better for a business to have high profitability.

Keywords: Profitability, Efficiency, Earning Performance, HPCL.

Profit and Profitability

Profit and profitability both are directly related to each other. Profitability comes out of profit. Profitability will be more in case of high profits and less if the profit will be low.

As per Sam R. Goodman, "Profit is a residual. It is a static historical term more geared to a reporting function than to a decision making." (Goodman, 1970)

Sam R. Goodman also said that, "Profit is an owner-oriented concept and is tied into the ownership shares of national income and the provision. On the other hand, as a concept it is taking to the levels of profit which lead themselves to be the least number of alternative accounting measure the profit is directly attributable to the existence of a product and identify marginal contribution. It is essentially an internal measure of new wealth creation. Thus, whereas the accounting concept of profit measures that have been accumulated, the analytical concept of profitability is concerned with future accumulation of wealth," (Goodman, 1970)

According to Lyndsey Hrabik, "Profit isn't a word that nonprofits feel comfortable with. It implies that they're making money when they're trying to make an impact instead." (Goodman, 1970)

But adding four letters to the dirty word nobody wants to talk about is vital for nonprofits, and completely changes the meaning-profitable. Just because you're a non-profit doesn't mean you can't be profitable.

When a business is profitable it means that they're making money. That's not the only version of profitable, though. "Profitability can also refer to something that is beneficial, worthwhile

and productive-all things you should be striving for." (Gupta, 2003)

Profit and profitability being similar concepts still there is a lot of difference. "The accounting concept of profit measures what have been accumulated, the analytical concept of profitability is concerned with future accumulation of Wealth." (Gupta, 2003)

Profit is basically find out after meeting all the expenses like administrative expenses, manufacturing expenses, selling expenses etc. Whereas profitability means to what extend the profits of the company can be increased. The profits of two identical firms may be similar at a point but their profitability will surely vary as the means to extend profits of two firms may not be same. Profit and profitability both work together in the business in the same manner as pulse and blood work in the human body. According to Hermenson Edward and Salmonson "profitability is the relationship of income to some balance sheet measure which indicates the relative ability to earn income on assets employed" (Gupta,2003)

Introduction

Hindustan Petroleum Group is a Government of India Enterprise with Navratna Status along with Forbes 2000 listed and Global Fortune 500 company. Originally, it had been incorporated as company under Indian Companies Act 1913 with CIN No. L23201MH1952GOI008858 listed on the BSE and NSE in Indian share market.

(<https://www.google.co.in/url?sa=t&source=web&rct=j&url=http://www.hindustanpetroleum.com/taxonomy/term/16&ved=0ahUKEwie0Pfn9-PWAhUFv48KHbEKDI0QFggmMAA&usg=AOvVaw0L0zwwiSG3fL297u9AkYfu>). It owns and operates two major refineries which producing varieties of petroleum fuels and specialties (One in west coast Mumbai of 6.5 million metric tons per annum- MMTPA capacity and other in East coast Visakhapatnam with capacity of 8.3 MMTPA).

(https://www.google.co.in/url?sa=t&source=web&rct=j&url=http://www.hindustanpetroleum.com/aboutus&ved=0ahUKEwj-9_yE-OPWAhXK6Y8KHTQ9D9IQFggymAE&usg=AOvVaw2nusLRNfDDuJFbSgmszr9d)

HPCL also operates and owns the largest Lube refinery in India which produces Lube base oils of international standards along with capacity of 428 TMT. This account for 40% of overall India's total lubes base oil production. (https://www.google.co.in/url?sa=t&source=web&rct=j&url=https://en.m.wikipedia.org/wiki/Hindustan_Petroleum&ved=0ahUKEwjPqMqb-OPWAhXGRo8KHQdmA5EQFggmMAA&usg=AOvVaw0VNljYkLTTMyza141GEHwi)

Currently, HPCL produces 300+ lube grades, specialties and greases. It is in collaboration with M/s Mittal Energy Investments Pte. Ltd. operating 9 MMTPA capacity refinery at Bathinda with 49% equity in Punjab holds an equity of 16.95% approx. in 15 MMTPA Mangalore Refinery and Petrochemicals Ltd. (MRPL). (<https://www.google.co.in/url?sa=t&source=web&rct=j&url=http://petroleum.nic.in/sites/default/files/AR15-16.pdf&ved=0ahUKEwjJqC7-OPWAhVHr48KHaWfAcAQFggxMAE&usg=AOvVaw35vs3tysDZnpH67x8Vd-ds>)

HPCL is always consistent in performance due to the fact that they have highly motivated workforce around 11000 employees working across India at its different locations for marketing and refining. It also releases the RTI Information Manual depicts the details of the operations of the organization. It is always committed to achieve economical, ecological and social responsibilities objectives of sustainable development via varied operational activities. HPCL

mostly focus on the areas of child care, healthcare, skill development, education, community development and touching lives of weaker section of the society.

In last couple of years, Hindustan Petroleum (HP) reputation varies from people to people, few thinks it has abundant supply of petrol and diesels, few thinks it is for easy availability of lubricants and LPG, few thinks of inexhaustible reservoir of Kerosene and other petroleum products to meet the energy needs. All together it signifies an ever radiant source of the energy which makes a difference to several lifestyles. HPC is targeting the "Future full of energy" and set to unveil new phase in growth and diversifying into power generation, renewable energy ventures, oil exploration and its production etc.

Sales turnover, Share Capital, Networth and Net Profit of HPCL (In Crores)

	2011-12	2012-13	2013-14	2014-15	2015-16
SALES TURNOVER	2993.27	3120.86	3179.62	3918.62	3791.42
SHARE CAPITAL	247.28	494.56	494.56	247.28	247.28
NETWORTH	604.20	649.23	751.42	496.78	575.61
NET PROFIT	481.03	447.39	674.91	474.56	615.26

CAPITAL STRUCTURE

PERIOD	INSTRUMENT	AUTHORISED		ISSUED	PAID UP CAPITAL	
		CAPITAL	CAPITAL		SHARES(NOS)	FACE VALUE
2011-12	EQUITY SHARE	349.25	339.33	339330000	10	339.33
2012-13	EQUITY SHARE	349.25	338.63	338627250	10	338.63
2013-14	EQUITY SHARE	349.25	339.33	339330000	10	339.33
2014-15	EQUITY SHARE	349.25	339.33	339330000	10	339.33
2015-16	EQUITY SHARE	349.25	339.33	339330000	10	339.33

Scope of the Study

For the present study, HINDUSTAN PETROLEUM LIMITED, a private sector company which is mainly engaged in manufacturing of Lubricant oil is selected on the basis of capital employed and a period of six years (from 2011 to 2016) is taken for the study. The profitability analysis has been done to find out the responsibility of the company towards society.

Research Methodology and Design

For the value added analysis, the data is collected primarily from the annual reports of the selected company.

Analysis and Findings

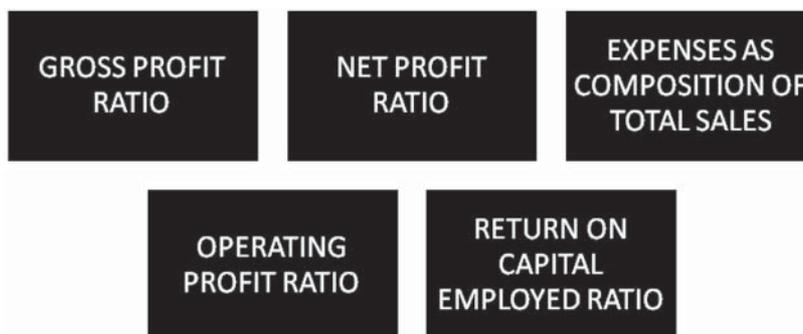
Profitability ratios are calculated to know the earning capacity of the organisation. As the name indicates profitability ratios are calculated to know the efficiency of the business.

For the appraisal of lubricating oil firms in India under study has been examined through 'profitability ratios.' As stated earlier, there are two area of concern for judging profitability (1) profitability in short run, i.e. relationship on income statement which indicates a company's

ability to recover cost and expenses; and (ii) profitability in the long run, i.e relationship of income to some balance sheet measure which indicates the relative ability to earn income on assets and capital employed. On this basis, profitability ratios can be segmented into three groups: (a) profitability ratios in relation to sales, (b) profitability ratio in relation to sales, and (c) profitability ratio in relation to capital employed. The sales based profitability ratios are Gross profit ratio, net profit ratio, expenses ratio, operating ratio. Profitability ratios in relation to assets and capital employed are operating profit to operation assets ratio, return on capital employed, and return on net worth, earning per equity share of the company will be discussed.

Classification of Profitability Ratios

A) PROFITABILITY IN RELATION TO SALES: These ratios are calculated to find out the profit earning capacity of the firm. These are of following types:



A). Gross Profit Ratio: The formula for calculating gross profit ratio is:

$$\frac{\text{GROSS PROFIT}}{\text{NET SALES}} \times 100$$

Indications:

- Net Sales is the difference between Gross sales and sales returns.
- Gross profit is the difference between Net sales and all the direct expenses like manufacturing expenses, factory cost, expenses directly related to purchases.

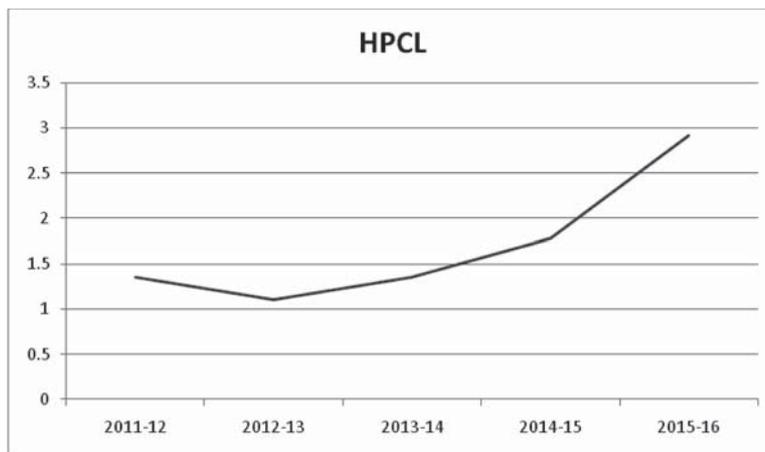
Gross Profit ratio basically tells about the efficiency of the organisation to produce goods. Higher the gross profit ratio indicates that the organisation is able to produce more at lower cost and lower gross profit ratio indicated that organisation is able to produce goods at higher cost.

A higher Gross profit ratio is the indicator of good efficiency of the organisation.

GROSS PROFIT RATIO OF HPCL (in%)

	2011-12	2012-13	2013-14	2014-15	2015-16	AVERAGE
HPCL	1.35	1.10	1.35	1.78	2.92	1.7

As regards to Hindustan Petroleum Limited, the company showed its gross profit ratio from 1.35 in 2011-12 to 2.92 in the year 2015-16. The company showed fluctuating change in gross profit ratio in the last five years but showed an increasing trend in the year 2015-16. The average gross profit ratio of the company is 1.7 which shows company needs to grow up more as regards to gross profit ratio.

Graph showing Gross Profit ratio of HPCL from year 2011-12 to 2015-16

B) NET PROFIT RATIO: The formula for calculating net profit ratio is:

$$(\text{NET PROFIT})/(\text{NET SALES}) \times 100$$

Indications:

- Net Sales is the difference between Gross sales and sales returns.
- Net profit is the difference between Net sales and all the indirect expenses like administrative expenses, selling expenses, distribution expenses etc.

Net Profit ratio basically tells about the availability of sales to the owners after meeting all the operating and non operating expenses or the normal and abnormal costs. Higher the net profit ratio indicates higher profitability of the business and lower net profit ratio indicates lower profitability of the business.

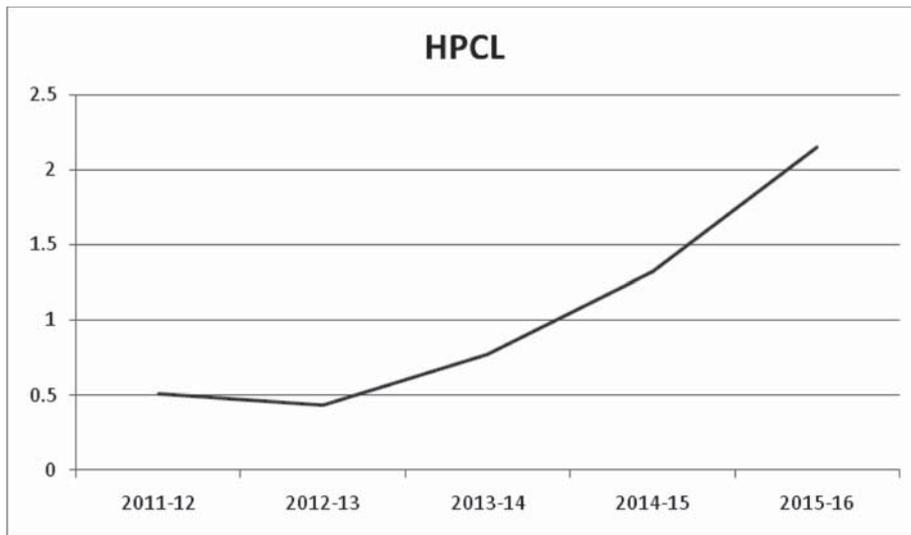
A higher net profit ratio is the indicator of good efficiency of the organisation.

Table below indicates the ratio of net profit to sales of the selected oil firms under the study and the taking all the companies of the study together, during the period under review.

NET PROFIT RATIO OF HPCL (in%)						
	2011-12	2012-13	2013-14	2014-15	2015-16	AVERAGE
HPCL	.51	.43	.77	1.32	2.15	1.036

In Hindustan Petroleum Corporation Ltd, the net profit ratio ranged from .51 in the year 2011-12 to 2.15 in the year 2015-16. It showed an increasing trend, this ratio was satisfactory in the last two years. In this company the net profit increased to 2.15 in 2014-15. The overall net profit ratio of last five years on an average is quite unsatisfactory.

Graph showing Gross Profit ratio of HPCL from year 2011-12 to 2015-16



C) OPERATING PROFIT RATIO:

Ie. Operating ratio matches the cost of goods sold plus other operating expenses on the one hand, with net sales, on the other.

The operating expenses consist of the following:

- Selling and distribution expenses, like salaries of salesmen, advertising and travelling expenses.
- Administrative expenses, like rent ,insurance, salaries of office clerks, directors fees, legal expenses etc. in the form of formula it can be expressed as follows:

$$\text{Operating Profit Ratio} = (\text{OPERATING PROFIT})/(\text{NET SALES}) \times 100$$

Where, operating profit= Net Profit + Non- Operating Expenses- Non Operating Incomes

"This ratio shows the percentage of net sales that is absorbed by the cost of goods sold and operating expenses. Naturally, the higher the operating ratio, the less favourable it is, because it would leave a smaller margin to meet interest, dividends and other corporate needs. In general, for manufacturing concerns , the operating ratio is expected to touch a percentage of 75 to 85 percent"

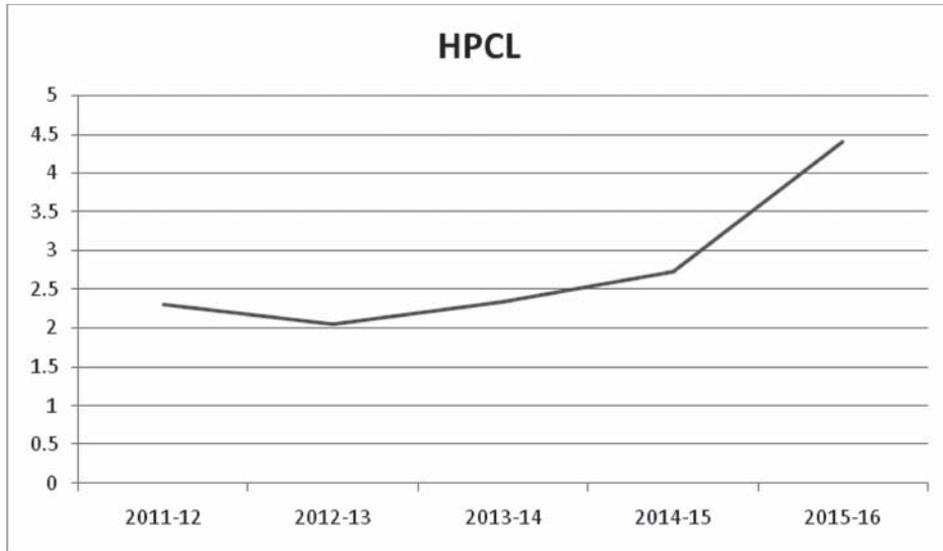
Significance: This ratio analyses the operating performance of the business in a better way. Higher the operating profit ratio, better is the operational profitability of the business.

OPERATING PROFIT RATIO OF HPCL (in%)

	2011-12	2012-13	2013-14	2014-15	2015-16	AVERAGE
HPCL	2.31	2.06	2.34	2.74	4.40	2.77

In Hindustan Petroleum, the ratio varied from 2.31 percent in 2011-12 to 4.40 in 2015-16. The average ratio in this company was lower than that of Indian Oil during most of the years. On the basis of the average ratio it was the lowest. On the basis of the above table, it can be inferred that the ratio had marked a falling trend in earlier years which indicates low profitability, but on the result of the year 2015-16 a good future can be expected.

Graph showing Operating Profit ratio of HPCL from year 2011-12 to 2015-16



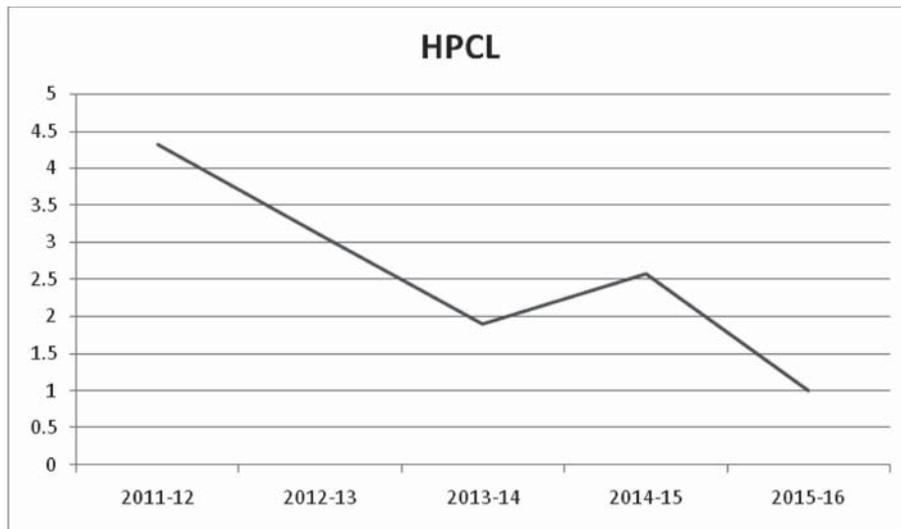
D) EXPENSES AS COMPOSITION OF TOTAL SALES

It shows the ratio which measures the relationship between particular expense and net sales. This ratio is usually expressed in percentage. Lower the ratio, better it is. Its formula is expressed as :

$$\text{Expenses}/(\text{Net Sales}) \times 100$$

EXPENSES AS COMPOSITION OF SALES RATIO OF HPCL (in%)

	2011-12	2012-13	2013-14	2014-15	2015-16	AVERAGE
HPCL	4.32	3.10	1.89	2.57	1.00	2.57

Graph showing Composition of Sales ratio of HPCL from year 2011-12 to 2015-16

PROFITABILITY IN RELATION TO CAPITAL EMPLOYED

- a) Return on capital employed
- b) Return on net worth
- c) Earning per equity share

a) "In day -to- day use, the term "capital employed" is used to indicate the total investment in the firm whether owned or borrowed" but the capital employed in a business may be defined in a number of ways and the two most widely accepted definitions are gross capital employed and net capital employed.

'Gross capital employed' usually comprises the total assets used in the business while 'net capital employed' consists of total assets of the business less its current liabilities.

Gross Capital employed

On the ground that the current liabilities are also a form of capital and all funds must be effectively employed, the gross capital employed concept may be favoured by the analysis.

Thus:

Gross capital employed = Fixed Assets + Current Assets

It may be noticed that the total of fixed assets and current does not necessarily represent total assets or total liabilities of a company.

Net Capital Employed : On the ground that either only short term creditors or only short-term debtors should be included in the capital employed, the net capital employed concept may be favoured.

Net capital employed = Gross Capital Employed- Current Liabilities

Or

Fixed Assets+ Current Assets - Current Liabilities

Or

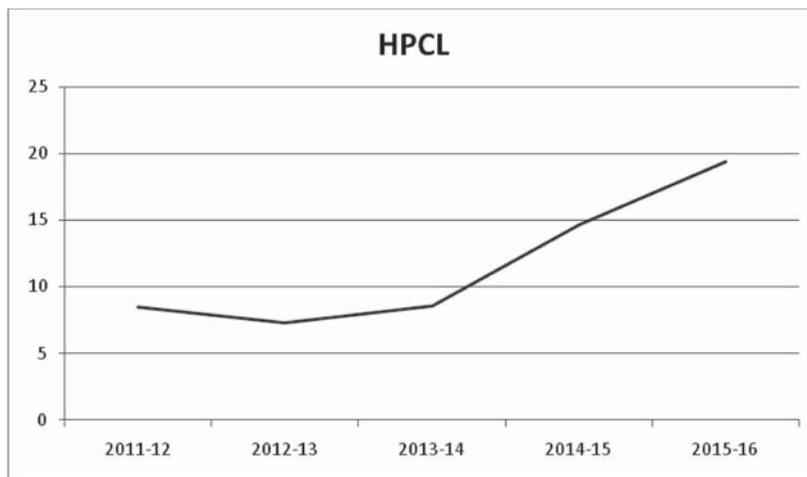
Fixed Assets + Net Working Capital.

RETURN ON CAPITAL EMPLOYED

Return on Capital Employed of HPCL from year 2011-12 to 2015-16

	2011-12	2012-13	2013-14	2014-15	2015-16	AVERAGE
HPCL	8.48	7.31	8.54	14.68	19.41	11.68

Graph showing Return on capital employed of HPCL from year 2011-12 to 2015-16



Hindustan Petroleum limited ranged from 8.48 percent in 2011-12 to 19.41 percent in 2015-16. It showed a decreasing trend in 2012-13 which is 7.31 percent. But its return on capital employed increased in later years due to which good future can be expected. The average percentage of this company is 11.68 percent

Return on Net Worth

The return on net worth (or return on shareholder's fund) is net profit after taxes divided by the total of net worth (i.e. preference shareholder's and equity shareholder's funds).

Return on Net worth = (Net Profit after taxes and Interest)/(Net Worth)

The net worth includes equity share capital , preferential share capital , share premium, reserves and surplus less accumulated losses, if any. Net worth can also be found by subtracting total liabilities from total assets.

This ratio indicates how well the company has used the resources of the owner. The earning of a satisfactory return is the most desirable objective of a business, and this ratio indicates the extent to which this objective has been achieved successfully.

Return on Net worth of HPCL From Year 2011-12 to 2015-16

	2011-12	2012-13	2013-14	2014-15	2015-16	AVERAGE
HPCL	6.94	6.59	11.54	17.05	21.04	12.63

The higher the return on Net worth, the better it is for the company as it shows that the objectives of the company have been achieved successfully. Comparing the averages of the return on net worth of the companies in the last five years taken under the study, Castrol India limited showed a higher increasing trend of 68.91 percent in 2011-12 to 113.28 percent in 2015-16 with an average of 90.45 percent followed by Apar Industries with 14.05 percent, Hindustan Petroleum Corporation limited with 12.63 percent and Indian Oil with 9.49 percent respectively.

b) Earning Per Share (EPS): Another method of measuring profitability is to express the earning of the company per share. It measures the profit available to the equity shareholders on per share basis, i.e the amount that they can get on every share held. Earning per share is calculated with the help of the following formula:

$$\text{EARNING PER SHARE} = \frac{(\text{NET PROFIT AFTER TAXES \& PREFERENCE DIVIDEND})}{(\text{NUMBER OF EQUITY SHARE OUTSTANDING})}$$

The earning per share calculations made for one year indicates whether or not the firm's earning power on per share basis has changed over that period. The more the earning per share, the better are the performance and prospects of the company.

Earnings Per Share of HPCL From Year 2011-12 to 2015-16

	2011-12	2012-13	2013-14	2014-15	2015-16	AVERAGE
HPCL	26.92	26.72	51.20	80.72	114.07	59.92

Hindustan Petroleum Corporation limited had an increasing trend of earning per share which ranged from 26.92 percent in 2011-12 to 114.07 percent in 2015-16. The company had a very good earning per share capacity in all the last five years taken under the study. The company had an average earning per share as 59.92 percent which is highest among the other three companies taken under the study.

Conclusion

In order to improve the gross profit and net profit of the individual companies and all the companies taken under study, it has been suggested that Hindustan Petroleum Corporation limited should try to reduce the cost of goods sold.

In the light of above discussion it is also suggested that Hindustan Petroleum Corporation Limited should undertake cost control measures so that increased net profits before interest and taxes of the company might enhance the return on net capital employed.