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# Comparative Profitability Analysis of Public and Private Ltd Companies in India

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**Abstract**

The profitability has been identified as one of the most significant aspects of any business. Profitability Analysis of Public and private sector Oil Companies is very essential to know about general and overall profitability. The objectives of the study are to find out the Profitability of the organization to examines relationship between different Profitability Ratios. This study is based on the secondary data which is collected from the Annual Reports of Bharat Petroleum Corporation Limited and Essar Oil Limited (Nayara Energy). Ratio analysis as a tool is used for data analysis. Under analysis General Profitability Ratios and Overall Profitability Ratios are calculated to justify the said objectives. At last t-test used for Hypothesis testing. The study would be beneficial for public and private ltd companies.

**Keywords:** Profitability, Public ltd, Private ltd, Analysis

## INTRODUCTION

The main or independent objective of a business is to make profit. Profit earning is essential for the survival of the business. A business needs profit not only for its existence but also for expansion and diversification. The stake holders of the business want adequate returns for their involvement in business therefore business enterprise can discharge their obligations to each stake holder and various segments of society only through earning profit. We can say profit is a Barometer and useful measure of overall efficiency of the business. Profit to the management are the test of efficiency and a measurement of control, to measure the worth of owner's investment, to margin of safety of creditors, a source of fringe benefit for employees, a measure of taxpaying capacity for government, and finally profits are an index of economic progress to the country. In the tool Ratio analysis, we have profitability ratio which are calculated to measure the overall efficiency of the business. Generally, these ratios are calculated either in relation to sale or investments. Profitability ratios are the widely used system of measurement used in financial analysis. It suggests the best way a company utilizes assets to yield profits and bring value to its shareholders, making business decisions related to expansion, innovations, and diversification. It is very useful for inter firm and intra firm comparison for any consecutive years.

## COMPANY PROFILE

**Bharat Petroleum Corporation** is India's 'best performing' Maharatna Public Sector, oil, and Gas Undertaking, with holding of 5.98% ownership. Around 1860's, companies historical journey began as Burma Oil Company. BPCL is the most admired global energy company leveraging talent and technology. The businesses of BPCL are fuel &services, Bharat gas, Max Lubricants, Aviation, Refineries, and Gas. Company has investor's friendly policies Bharat Petroleum has constantly endeavoured to maximise returns for our investors. BPCL consistently sustain and improve Returns on Investments for investors. Company has visions like constant pursuit for customer service, quality& excellence, efficient initiatives for Safety, Security, Environment, Health, and CSR.

**Nayara Energy (Essar Oil Limited -EOL)** is an Indian company was incorporated in September 12, 1989 with the objective of engaging in the production and exploration of oil and natural gas, refining of crude oil, and marketing of petroleum products. It is a part of the Essar Group based in Mumbai. The parent organization is Essar Energy founded in 1969 and the date of Commencement of Business is January 2, 1990. Essar Oil earns revenue from three different business segments viz. Refinery, Exploration and Production and Marketing as outlined in subsequent section. This is Private owned Public Limited fully integrated oil & gas company international scale. The Company's ownership changed on August 18, 2017 following a historic transaction that valued Essar Oil at USD 12.9 billion. The term 'Nayara' has been coined from the words 'Naya' (new) and 'Era new brand opportunely describes company's vision.

## REVIEW OF LITERATURE

**Vijayakumar, A. and Gomathi, P. (2013)** have done Empirical study of the Profitability of Indian Oil Refineries like Reliance Industries Ltd and Chennai Petroleum Corporation Ltd, Mangalore Refinery Petrochemicals Ltd and Essar Oil Ltd Hindustan Petroleum Corporation Ltd, Bharat Petroleum Corporation Ltd. The study concludes that the operating efficiency of selected oil refineries in India was satisfactory and the management generally succeeded in investing capital funds. The performance of Reliance Industries Ltd and Chennai Petroleum Corporation Ltd was good throughout the study period.

**Bhutani, Arush (2013)** has comparatively studied the IOCL with its competitor like BPCL and HPCL. Researcher used secondary data of last 5 years. Tools of Financial analysis like comparative analysis and Ratio analysis have been used to understand the position and status of IOCL in the industry. An attempt has been made in this study to analyse the Porter's 5 forces model used for SWOT analysis of IOCL with its competitors.

**Naji Maseeho Odel, Soran, (2014)** investigate the financial standing and performance of foreign oil companies taking part in oil production projects in the Kurdistan region of Iraq They examined five foreign companies based on three ratios Return on asset, Return on Equity, return on capital employed. These ratios shed light on how a company performed in the past, and will perform in the future. This study suggested that, the financial performance of the companies is satisfactory. Companies are successfully achieved their mission and should have started their operations in Kurdistan.

**Mohd. Taqi (2014)** assesses the financial performance of State Trading Corporation (STC) of India Ltd. & Minerals and Metals Trading Corporation (MMTC) of India Ltd. Comparatively from 2002-03 to 2011-12. Different financial ratios like liquidity, profitability, solvency, and activity ratios are used to compare the performance of both companies. Business practices such as export, import and domestic trade have also been considered to measure the operational performance of STC Ltd. and MMTC Ltd.

**Mohammad Mohtashim (2014)** analysed the Financial Ratios of Indian Oil Corporation Ltd In the study researcher has used and collect secondary data of five years 2009 to 2010 from the annually published report of IOCL. Since financial analysis tool ratio analysis, profitability, efficiency, solvency, and liquidity position have been finding out in the study. Profitability ratios, solvency ratios, Liquidity ratios and Turnover ratios are calculated for data analysis. The study concluded that there had been continuous decrease in net profit ratio from 2009-10 to 2011-12. This may be attributed to fact that there had been constant increase in crude oil prices and USD to INR currency exchange rate.

**Yameen and Ahmad (2015)** work in his research paper, revealed the role of corporate governance adopted for the improvement of the operating financial efficiency and stockholder's wealth in the organization. He has chosen Hindustan Petroleum Corporation for study of said objectives The Published data arranged from annual reports of company and from articles, magazines etc. The conclusion of research is that the corporate governance had positive impact on the overall financial performance of Hindustan Petroleum Corporation Limited.

## IMPORTANCE OF STUDY

The success of Every firm is identified by its profitability. Profitability ratios reveal a company's full efficiency and performance. The profitability has been considered as one of the most important aspects of every profit motive business. Therefore, such kind of studies are must for corporate sector, they will be able to survive under unfavorable situations only if they have some past earnings to repay upon. This study is very beneficial for the companies those who want to take decision for expansion and growth. As we all know that there is tough competition in the market so for cope up with challenges and surviving in the market, studies, and research to know about earning efficiency is very important for corporates.

## STATEMENT OF THE PROBLEM

Every Business enterprise is depended upon Profit earning capability and return on capital employed. The main requirement of the companies is to maintain and retain the earnings. Therefore, corporate must find out financial position of the business and Profitability position to analyze the Financial Statements through financial analysis. In this Study the statement of the Problem is to analyze the profitability Appraisal of Bharat Petroleum Corporation Limited and Essar Oil Corporation Limited (Nayara Energy) during the ten years of study. Through this study the corporates can understand the actual profitability position of the company and can take corrective measures for further improvement. The study suggested to management to concentrate on decreasing operating cost and increasing operating profit for the profitability of the Company.

## OBJECTIVE OF THE STUDY:

- To find out the Profitability of public ltd company (BPCL) and Private Ltd company (Nayara Energy)
- To examine the differences of profitability position of, BPCL and (Nayara Energy)

## HYPOTHESIS:

There is no significant difference in profitability position of, BPCL and EOL

## RESEARCH METHODOLOGY

The proposed study would be descriptive in nature and it is purely based on secondary data. The data has been mainly collected by financial statements of both the companies that is position statement and income Statement and their schedules along with the information of some data has also been collected through personnel observations of emporium offices, management, administration etc. The data pertaining to consecutive tenure of 10 years (2006-07 to 2015-16) would be analyzed to attain the said objectives. Analysis techniques like Ratio Analysis have been used, to reach appropriate conclusion regarding the profitability and overall efficiency of the company and t-test has been applied for Hypothesis Testing.

## RESULTS AND DISCUSSIONS-

### General Profitability Ratio

### Gross Profit Ratio

Profit earning is the main motive of each business concern. Gross Profit Ratio expresses the relationship between Gross Profit and Net sales. It is very important tool to measure the operational ability and performance of the business. Gross profit Ratio is used to compare the profitability of similar companies and companies to their industries. The formula of gross profit ratio in percentage is given below:

**Formula:**

$$\textbf{Gross Profit Ratio} = \frac{\textbf{Gross Profit}}{\textbf{Net Sales}} \times 100$$

Gross profit = Net sales – Cost of goods sold

Net sales = Gross sales – Sales returns or returns inward

**Significance of Gross Profit Ratio:** Gross profit is most important for every type of business. There are not any standard norms for Gross Profit ratio, it may change from business to business but the Gross Profit should be enough to cover the operating Expenses. Higher the gross profits better the result means a higher ratio is considered better. Due to lesser sales, unfavorable purchasing policies, excessive competition, low gross profit ratio broadly, indicates more cost of goods sold. In the given table we are calculating Gross profit Ratio of BPCL and EOL with Average of ratio, standard deviation, Coefficient of variation and Annual Growth Rate. The details and their upshots are projected in following comparative table.

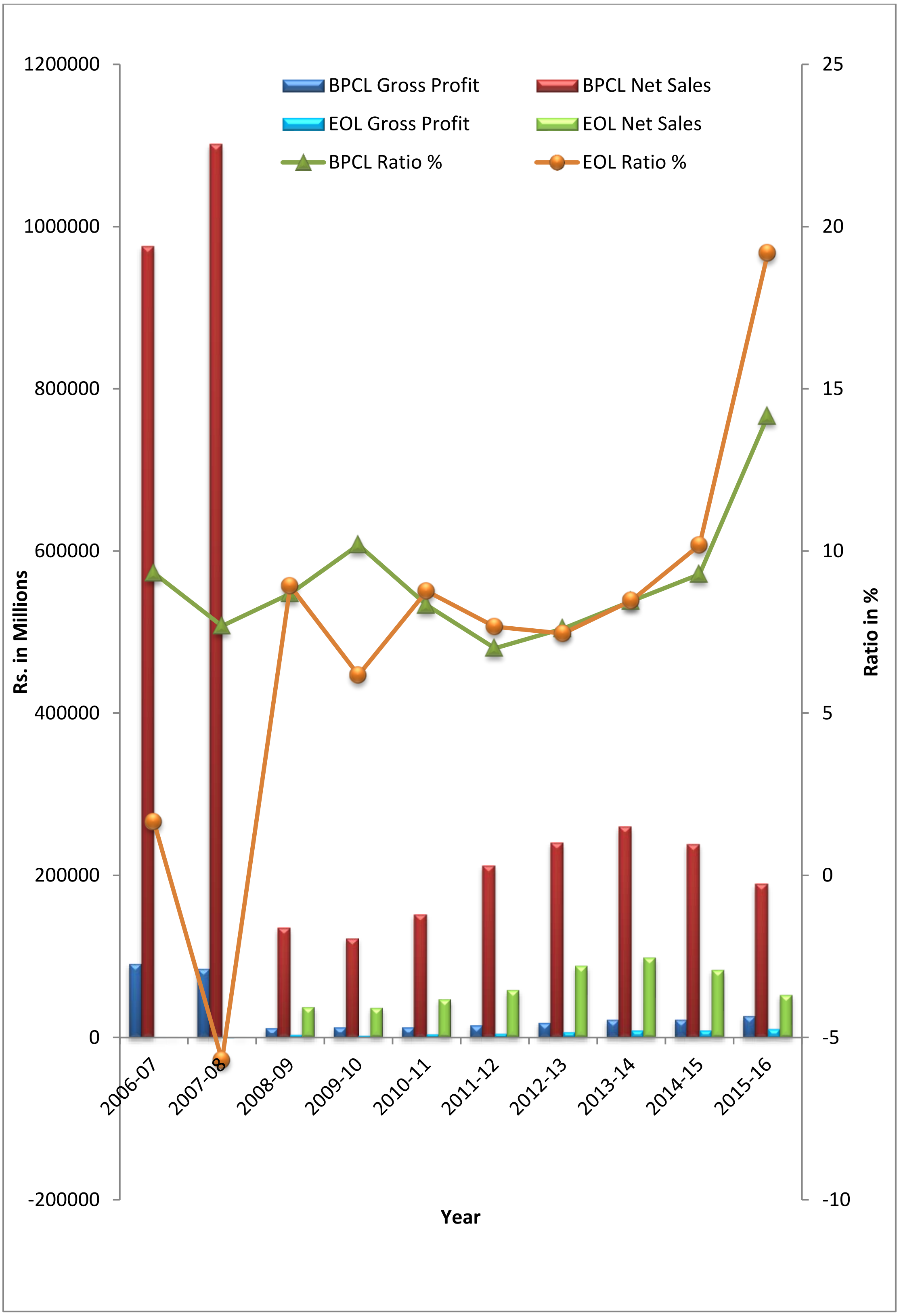
**Comparative Appraisal of Gross Profit Ratio of BPCL and NAYARA ENERGY(EOL)**

(Rupees in Millions)

| Year | BPCL | | | NAYARA ENERGY(EOL) | | |
|---|---|---|---|---|---|---|
| | Gross Profit | Net Sales | Ratio % | Gross Profit | Net Sales | Ratio % |
| 2006-07 | 90940.76 | 975602.21 | 9.32 | 7.90 | 473.98 | 1.66 |
| 2007-08 | 84805.08 | 1101542.59 | 7.69 | -32.09 | 562.29 | -5.70 |
| 2008-09 | 11749.57 | 135237.70 | 8.68 | 3353.13 | 37556.08 | 8.92 |
| 2009-10 | 12461.29 | 122275.95 | 10.19 | 2253.70 | 36504.61 | 6.17 |
| 2010-11 | 12626.33 | 151545.06 | 8.33 | 4125.09 | 47060.92 | 8.76 |
| 2011-12 | 14852.45 | 211972.97 | 7.00 | 4472.76 | 58336.63 | 7.66 |
| 2012-13 | 18278.45 | 240115.75 | 7.61 | 6614.30 | 88578.12 | 7.46 |
| 2013-14 | 21995.53 | 260060.53 | 8.45 | 8353.14 | 98601.87 | 8.47 |
| 2014-15 | 22097.48 | 238086.90 | 9.28 | 8471.05 | 83205.81 | 10.18 |
| 2015-16 | 26814.47 | 189303.33 | 14.16 | 10063.96 | 52465.92 | 19.18 |
| **Mean** | **31662.14** | **362574.30** | **9.07** | **4768.29** | **50334.62** | **7.28** |
| **AGR** | **-7.05** | **-8.06** | **5.19** | **12729.19** | **1096.92** | **105.54** |
| **SD** | **30066.20** | **360484.52** | **2.02** | **3536.25** | **33780.38** | **6.31** |
| **CV** | **94.96** | **99.42** | **22.25** | **74.16** | **67.11** | **86.66** |
| **Correlation** | **0.983749281** | | | **0.842258096** | | |

**(Source: Annual Report of BPCL &NAYARA ENERGY)**

**Comparative Appraisal of Gross Profit Ratio of BPCL and NAYARA ENERGY**




**Interpretation:**

According to the table, the Gross Profit Ratio of BPCL and NAYARA ENERGY (EOL) reveals that the ratio is fluctuating from 2006-07 -2015-16., As we know ratio treated as normal between 20% to 30%. As per table ratio of both the companies are not satisfactory for the progress of companies. In BPCL from the year 2006-07 ratio was 9.32%, it is 7.69% in 2007-08 and 8.68 % in 2008-09. The ratio goes up to 10.19 % in 2009-2010 and again drop down to 8.33%. From the year 2011-12, the ratio rises 7.00% ,7.61% in 2012-13, 8.45% in 2013-14, it also increased to 9.28% and 14.16% in 2015-16. The average of GP Ratio in case of BPCL turned out to be 9.07 with a standard deviation of 2.02 and 22.25 CV indicates a relatively high variation. Similarly, in EOL, the average of GP Ratio in case of EOL turned out to be 7.28 with a standard deviation of 6.31 and 86.66 CV indicates a relatively high variation. Ratios are fluctuating from 2006-07 – 2012-13, it is 1.66% in 2006-07, and decrease to -5.70% in 07-08, then increased to 8.92% in 08-09.In the year 2009-10 , the ratio was 6.17% and increased to 8.76% 2010-2011,which is decrease to 7.66%,again decrease to 7.46% in 2012-13.From 2013-14 the ratio increases to 8.47%,10.18% in 2014-15 and 19.18% in 2015-16.In the BPCL the highest ratio is 14.16% and lowest ratio is 7.00%,whereas in EOL the highest ratio is 19.18% and lowest ratio is -5.70%.As we have seen EOL has highest ratio in 2015-16 than BPCL but the company BPCL has better profitability position as compare with EOL.As per norms both the companies have not reach the 20-30% ratio. We suggest that companies must control on COGS to improve the Gross Profit Ratio

**Operating Ratio**

Operating Ratio indicates the capability and efficiency of companies by calculating and comparing operating cost to net sales. In other words, we can say this ratio measures the cost of operations per rupee of sales. Operating ratio judges the operational efficiency of a company. We can also know as expenses to sales ratio and expresses in percentage.

**Formula:**

$$\textbf{Operating Ratio} = \frac{\textbf{Operating Cost}}{\textbf{Net Sales}} \times 100$$

- Operating Cost = Cost of Goods Sold + Operating Expenses
- Net Sales = Gross Sales – Sales Return

**Significance of Operating Ratio:** Operating Ratio indicates the operational efficiency of business. A higher ratio is not a good indicator of operational efficiency due to small margin of operating profit to cover interest, income tax, Dividend and Reserves. The low Operating ratio is more favorable for the business. There are no Standard norms for this ratio; it may be varying from firm to firm according to nature of business. In the given table we are calculating Operating Ratio of BPCL and EOL with Average of ratio, standard deviation, Coefficient of variation and Annual Growth Rate. The details and their outcomes are externalized in comparative table

**Comparative Appraisal of Operating Ratio of BPCL and NAYARA ENERGY(EOL)**

(Rupees in Millions)

| Year | BPCL | | | NAYARA ENERGY (EOL) | | |
|---|---|---|---|---|---|---|
| | Operating cost | Net Sales | Ratio % | Operating cost | Net Sales | Ratio % |
| 2006-07 | 951335.85 | 975602.21 | 97.51 | 536.17 | 473.98 | 113.12 |

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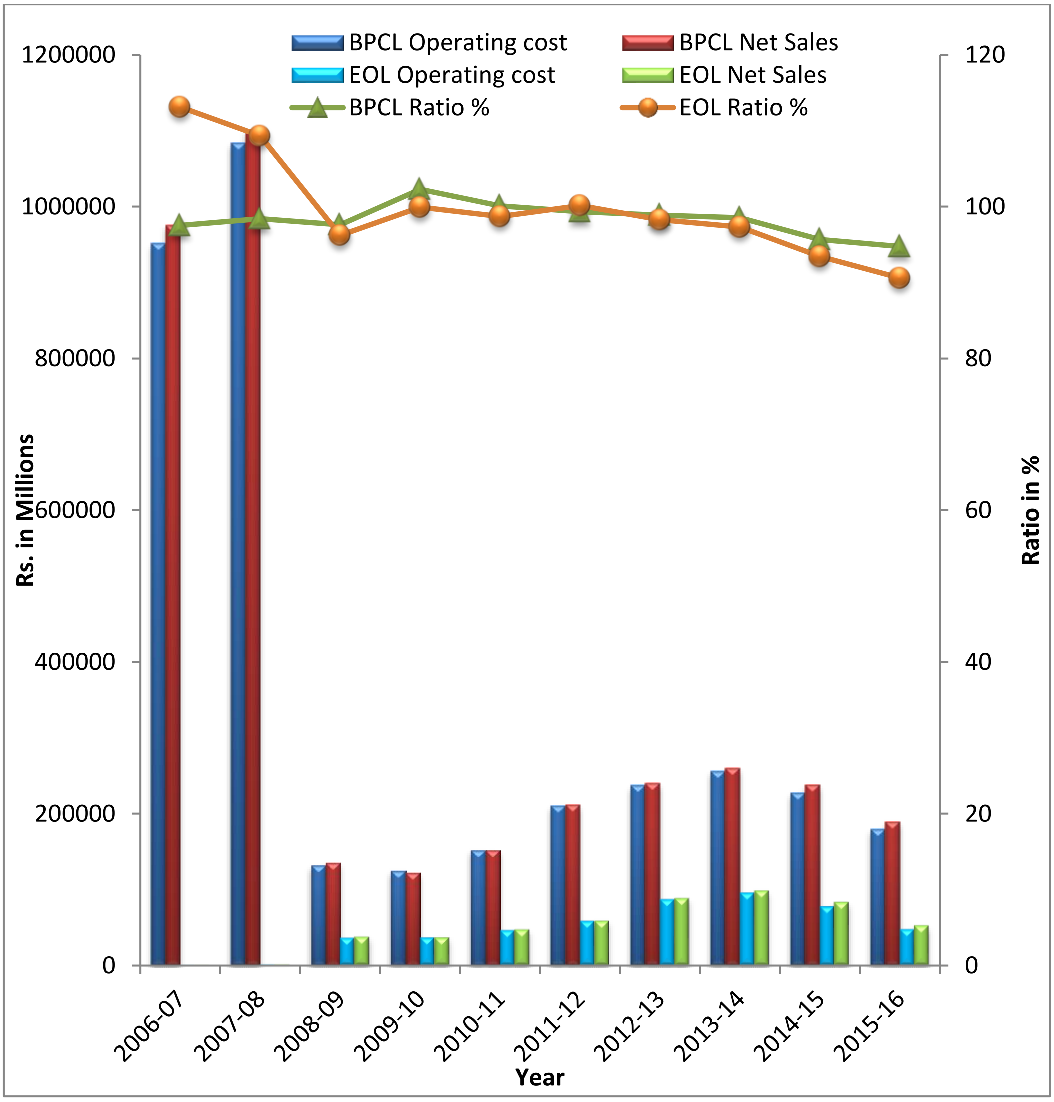
| | | | | | | |
|---|---|---|---|---|---|---|
| 2007-08 | 1084052.96 | 1101542.59 | 98.41 | 614.79 | 562.29 | 109.33 |
| 2008-09 | 131986.62 | 135237.70 | 97.59 | 36160.64 | 37556.08 | 96.20 |
| 2009-10 | 125073.61 | 122275.95 | 102.28 | 36477.84 | 36504.61 | 99.92 |
| 2010-11 | 151804.94 | 151545.06 | 100.10 | 46451.22 | 47060.92 | 98.70 |
| 2011-12 | 210592.59 | 211972.97 | 99.34 | 58410.67 | 58336.63 | 100.12 |
| 2012-13 | 237406.84 | 240115.75 | 98.87 | 87069.16 | 88578.12 | 98.29 |
| 2013-14 | 256251.43 | 260060.53 | 98.53 | 95976.76 | 98601.87 | 97.33 |
| 2014-15 | 227774.93 | 238086.90 | 95.66 | 77746.56 | 83205.81 | 93.43 |
| 2015-16 | 179376.95 | 189303.33 | 94.75 | 47536.06 | 52465.92 | 90.60 |
| **Mean** | **355565.67** | **362574.30** | **98.30** | **48697.99** | **50334.62** | **99.70** |
| **AGR** | **-8.11** | **-8.06** | **-0.28** | **876.59** | **1096.92** | **-1.99** |
| **SD** | **353157.73** | **360484.52** | **2.14** | **32643.28** | **33780.38** | **6.80** |
| **CV** | **99.32** | **99.42** | **2.18** | **67.03** | **67.11** | **6.82** |
| **Correlation** | **0.999926912** | | | **0.998630428** | | |

**(Source: Annual Report of BPCL &NAYARA ENERGY)**

**Comparative Appraisal of Operating Ratio of BPCL and NAYARA ENERGY (EOL)**



**Interpretation:**

In the table operating ratio of BPCL and NAYARA ENERGY (EOL) from 2006-07-2015-16 indicates that, both the companies have higher ratio during the period. The Operating ratio between 75-85% treated as good ratio. In BPCL the ratio lying between 94-99% with 98.30 averages with a standard deviation of 2.02 and 2.18 CV indicates a relatively high variation with growth rate of (0.28) in the period. In the year, 2009-10, it was 102.28% and in 2010-11, it was 100.10 % which were the highest ratio during the study. In the company EOL, ratio lying between 93-99% with but in 2006-07, it was 113.12% and in 2007-08, it was 109.33%, which were the highest ratio during the period. The average of Operating Ratio turned out to be 99.70 with a standard deviation of 6.80 and 6.82 CV indicates positively related high variation. We conclude that both the companies have less margin of operating profit to cover interest, Income tax, Dividend, and reserves. We suggest that companies should reduce Operating Expenses and Cost of goods sold to take growth.

**Net Profit Ratio**

Net Profit ratio lay down a connection between net profit after calculating tax and sales and indicates the competency of the management in manufacturing, selling, administrative and other activities of the firm. This ratio is the overall measure of firm's profitability. This ratio is also known as short term measurement ratio due to not maintain profitability over the long run.

**Formula:**

$$\textbf{Net Profit Ratio} = \frac{\textbf{Net Profit (after tax)}}{\textbf{Net Sales}} \times 100$$

- Net Profit (After Tax) = Operating Profit – Non-Operating Incomes and Expenses-Exceptional items – Taxes
- Net Sales = Gross Sales – Sales Return

**Significance of Net Profit Ratio:** Net Profit ratio suggest the firm's capacity and ability to face competition and adverse economic conditions such as price competition and low demand. Higher the ratio, the better is the profitability, which indicates the efficiency and affairs of the business. There is no standard norm to interpret the ratio; it may be change according to nature and profit margins of firm. In the given table we are calculating Net Profit Ratio of BPCL and EOL with Average of ratio, standard deviation, Coefficient of variation and Annual Growth Rate. The details and their outcomes are externalized in comparative table

**Comparative Appraisal of Net Profit Ratio of BPCL and NAYARA ENERGY(EOL)**

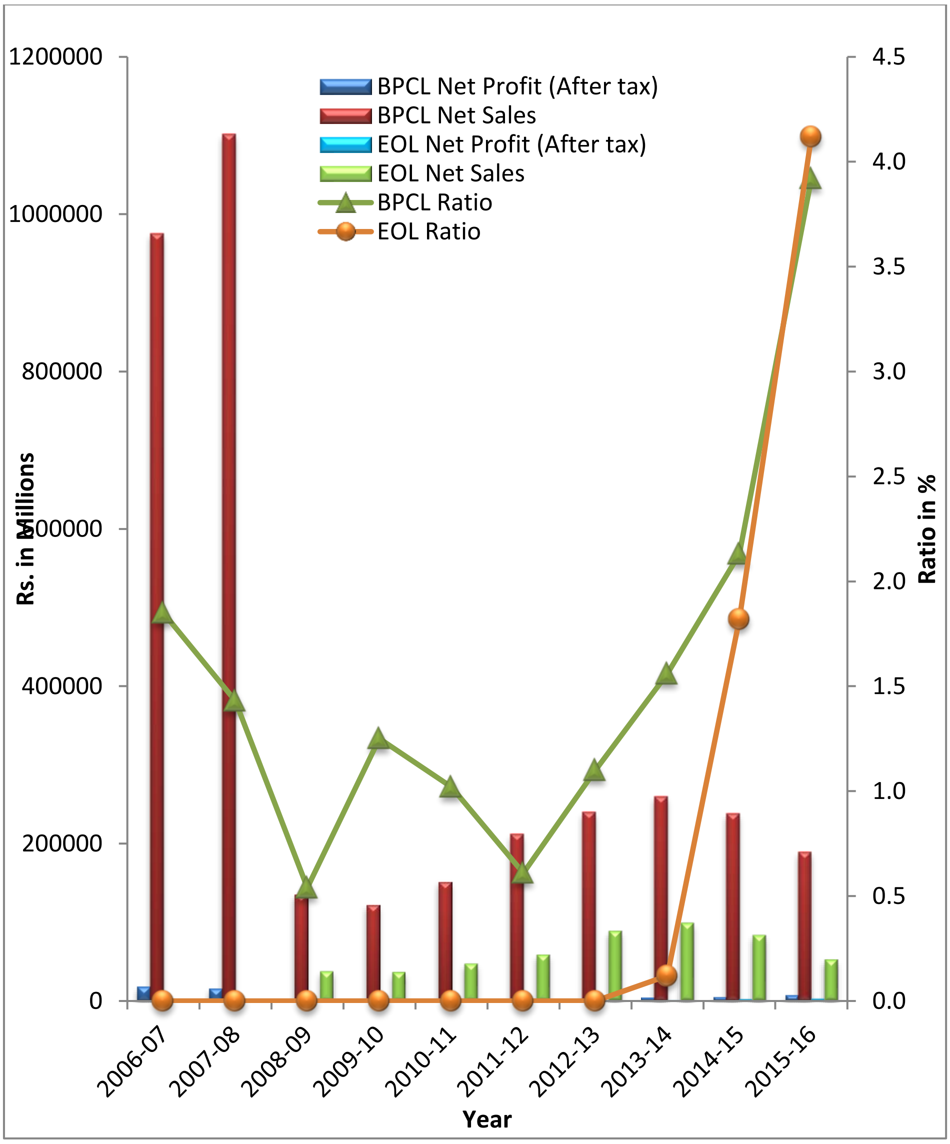
(Rupees in Millions)

| Year | BPCL | | | EOL | | |
|---|---|---|---|---|---|---|
| | Net Profit (After tax) | Net Sales | Ratio | Net Profit (After tax) | Net Sales | Ratio |
| 2006-07 | 18054.75 | 975602.21 | 1.85 | 0 | 473.98 | 0 |
| 2007-08 | 15805.61 | 1101542.59 | 1.43 | 0 | 562.29 | 0 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2008-09 | 735.90 | 135237.70 | 0.54 | 0 | 37556.08 | 0 |
| 2009-10 | 1537.62 | 122275.95 | 1.25 | 0 | 36504.61 | 0 |
| 2010-11 | 1546.68 | 151545.06 | 1.02 | 0 | 47060.92 | 0 |
| 2011-12 | 1311.27 | 211972.97 | 0.61 | 0 | 58336.63 | 0 |
| 2012-13 | 2642.90 | 240115.75 | 1.10 | 0 | 88578.12 | 0 |
| 2013-14 | 4060.88 | 260060.53 | 1.56 | 125.80 | 98601.87 | 0.12 |
| 2014-15 | 5084.51 | 238086.90 | 2.13 | 1521.47 | 83205.81 | 1.82 |
| 2015-16 | 7431.88 | 189303.33 | 3.92 | 2162.29 | 52465.92 | 4.12 |
| Mean | 5821.20 | 362574.30 | 1.54 | 380.96 | 50334.62 | 0.61 |
| **AGR** | **-5.88** | **-8.06** | **11.19** | **-** | **1096.92** | **-** |
| **SD** | **6222.77** | **360484.52** | **0.97** | **785.63** | **33780.38** | **1.36** |
| **CV** | **106.90** | **99.42** | **63.19** | **206.23** | **67.11** | **224.30** |
| **Correlation** | **0.942429414** | | | **0.254105509** | | |

**(Source: Annual Report of BPCL &NAYARA ENERGY)**

**Comparative Appraisal of Net Profit Ratio of BPCL and NAYARA ENERGY (EOL)**



**Interpretation:**

According to table, we have seen that BPCL has fluctuating ratio from 2006-07 to 2010-11 with the average of 1.54 with a standard deviation of 0.97 and 63.19 CV indicates a relatively high variation. From the year 2012-13 the ratio was increasing to 1.10%, in 2013-14 it was 1.56% and in 2014-15 it was 2.13% and 3.92%. The mean of net profit during the study was Rs.5821.2 million with growth rate of 58.83% and mean of net sales is Rs.362574.29 million with 80.59% In the EOL we have seen, that from 2006-07 -2012-13 company has no profits, but from the year 2013-14 the ratio is 0.12% which is increasing by 1.82% in 2014-15 and 4.12% in 2015-16. The average of NP Ratio in case of EOL turned out to be 0.61 with a standard deviation of 1.36 and 224.30 CV indicates a relatively high variation. We interpret that the BPCL has satisfactory position to achieve return on investment as compare to EOL. It was struggling in seven years of study for sufficient return on Investment but increasing trends in the last three years indicates the good hope for the company. We suggest that the companies must control on operating and non-operating expenses to improve the net profit ratio.

**Operating Profit Ratio**

Operating Profit is also known as performance ratio. This ratio used to calculate the percentage of profit a firm produces from its operations before deducting financial cost and taxes. The ratio suggests that what proportion of revenues is available to cover the non-operating expenses**.**

**Formula:**

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

- Operating Profit = Net sales – Operating Cost (COGS +Administrative and Office Expenses Selling and Distribution Expenses

  OR

  Operating Profit = Net Profit + Non-Operating Expenses – Non-Operating Income
- Net Sales = Gross Sales – Sales Return

**Significance of Operating Profit Ratio**

The ratio known as most important profitability ratio considered as yardstick of operating efficiency. Higher operating profit ratio is considered as good than low operating profit ratio. In the study operating profit ratio is comparatively computed for ten consecutive years of BPCL and EOL. In the given table we are calculating Operating Profit Ratio of BPCL and EOL with Average of ratio, standard deviation, Coefficient of variation and Annual Growth Rate. The components of data and their results are portrayed in comparative table

**Comparative Appraisal of Operating Profit Ratio of BPCL and NAYARA ENERGY (EOL)**

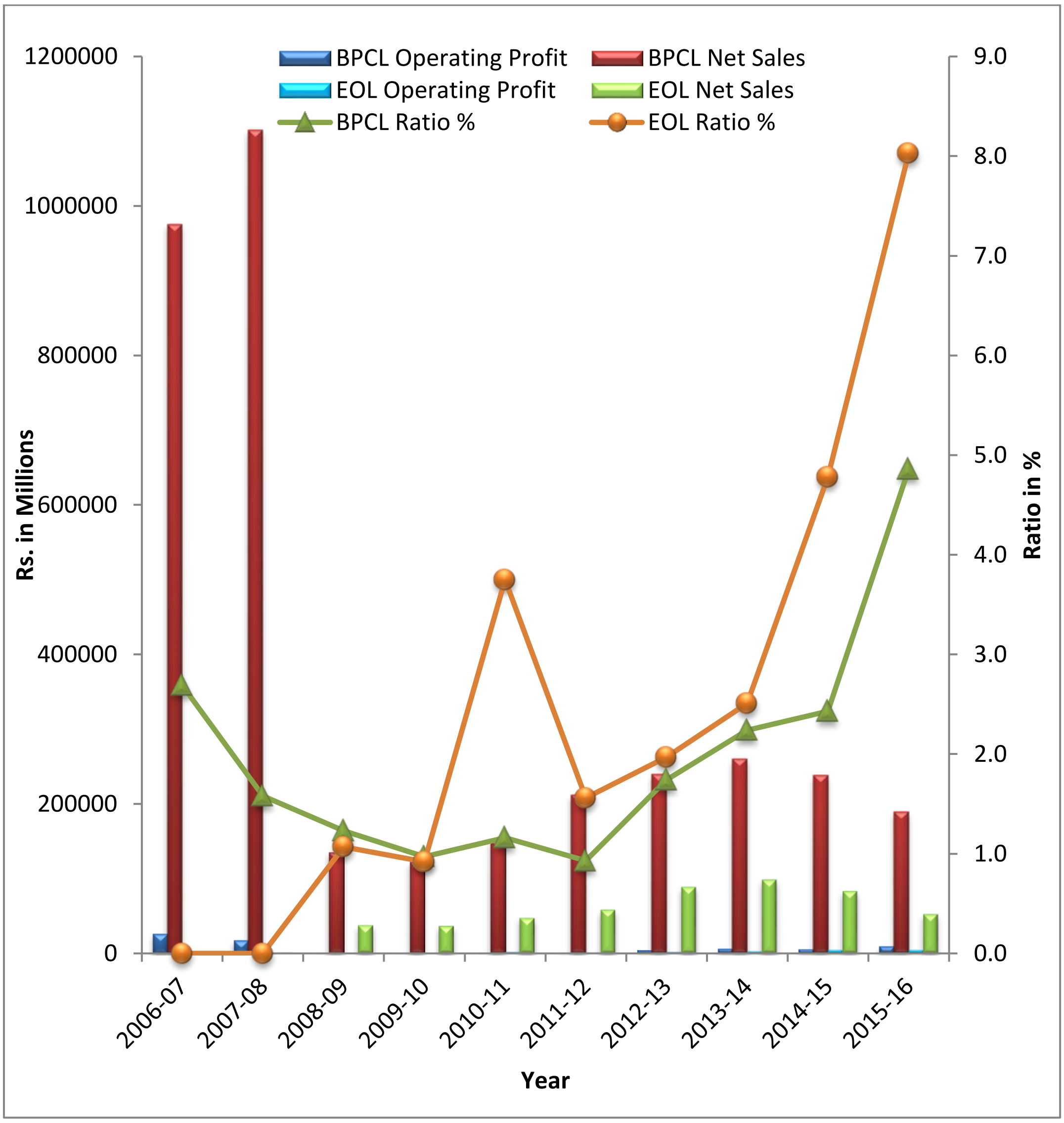
(Rupees in Millions)

| Year | BPCL | | | NAYARA (EOL) | | |
|---|---|---|---|---|---|---|
| | Operating Profit | Net Sales | Ratio % | Operating Profit | Net Sales | Ratio % |
| 2006-07 | 26320.81 | 975602.21 | 2.69 | 0 | 473.98 | 0 |
| 2007-08 | 17489.63 | 1101542.59 | 1.58 | 0 | 562.29 | 0 |
| 2008-09 | 1675.20 | 135237.70 | 1.23 | 403.69 | 37556.08 | 1.07 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2009-10 | 1192.19 | 122275.95 | 0.97 | 337.58 | 36504.61 | 0.92 |
| 2010-11 | 1768.55 | 151545.06 | 1.16 | 1767.34 | 47060.92 | 3.75 |
| 2011-12 | 1981.98 | 211972.97 | 0.93 | 914.06 | 58336.63 | 1.56 |
| 2012-13 | 4180.70 | 240115.75 | 1.74 | 1745.84 | 88578.12 | 1.97 |
| 2013-14 | 5839.40 | 260060.53 | 2.24 | 2476.73 | 98601.87 | 2.51 |
| 2014-15 | 5798.65 | 238086.90 | 2.43 | 3980.24 | 83205.81 | 4.78 |
| 2015-16 | 9201.96 | 189303.33 | 4.86 | 4213.10 | 52465.92 | 8.03 |
| **Mean** | **7544.91** | **362574.30** | **1.98** | **1583.86** | **50334.62** | **2.46** |
| **AGR** | **-6.50** | **-8.06** | **8.07** | **-** | **1096.92** | **-** |
| **SD** | **8236.62** | **360484.52** | **1.19** | **1560.79** | **33780.38** | **2.48** |
| **CV** | **109.17** | **99.42** | **59.77** | **98.54** | **67.11** | **101.02** |
| **Correlation** | **0.9091113** | | | **0.669793483** | | |

**(Source: Annual Report of BPCL &NAYARA ENERGY)**

**Comparative Appraisal of Operating Profit Ratio of BPCL and (NAYARA)EOL**



**Interpretation:**

According to table 3.4, we analyze that BPCL has fluctuating ratio from 2006-07-2011-12 with average turned out to be 1.98 with a standard deviation of 1.19 and 59.77 CV indicates a relatively high variation. From the year 2006-07 the ratio is 2.69%, It is 1.58% in 2007-08,1.23% in 2008-09, the ratio is decreases from 2009-10 it is 0.97%, in 2010-11 it is 1.16%.in 2011-12 it is 0.93%,2012-13 there is increasing trend of 1.74% in 2013-14 it is 2.24% and in 2014-15, It is 2.43%. In 2015-16, it is 4.86%. In EOL, in the year 2006-07 and 2007-08, company has no profits. In the year 2008-09 the ratio is1.07%, in 2009-10 it is 0.92%, in 2010-2011 it is 3.75% there is ups and downs in ratio. In the year 2011-12 it has 1.56% which is increasing till 2015-16. In 2012-13 it is 1.97%, 2013-14 it is 2.51% and in 2014-15 and 2015-16 it is 4.78% and 8.03%. The average of OP Ratio in case of EOL turned out to be 2.46 with a standard deviation of 2.48 and 101.02 CV indicates a relatively high variation. We interpret that BPCL has better position than EOL and having more operational capabilities and efficiency to pay non-operating expenses. We suggest that EOL must control on their operating cost.

**Overall Profitability Ratio:**

**Return on Shareholder's Investment**

This ratio is one of the crucial overall profitability ratios. It evaluates the whole profitability of business therefore known as Return on Investment (ROI). The ratio targets the ability and efficiency of the management in applying the resources of the business.

**Formula:**

$$\textbf{Return on Shareholder's Investments} = \frac{\textbf{Net Profit (after Tax)}}{\textbf{Shareholders fund}} \times 100$$

- Net Profit (After Interest & Tax) = Net Profit after payment of Interest and Taxes
- Shareholders' Investment = Equity share capital + Preference share capital + Reserve & Surplus – (Accumulated Losses)

**Significance of Return on Shareholder's Investments:** ROI is a very widely used popular measure to know about the profitability. Higher ratio is considered as good for the company, it means the efficient operations of company with the use of invested funds. Analyst interprets higher ratio as higher return on shareholders' investment and low ratio as lower returns. Here we calculate ROI for comparative study of BPCL and EOL for ten consecutive years. In the given table we are calculating Return on Shareholder's Investment Ratio of BPCL and EOL with Average of ratio, standard deviation, Coefficient of variation and Annual Growth Rate. The figures of computed data and their outcomes are projected in comparative table

**Comparative Appraisal of Return on Shareholder's Investment of BPCL and NAYARA ENERGY (EOL)**

(Amount in Millions)

| Year | BPCL | | | EOL | | |
|---|---|---|---|---|---|---|
| | NPAT | Shareholder's Fund | Ratio % | NPAT | Shareholder's Fund | Ratio % |

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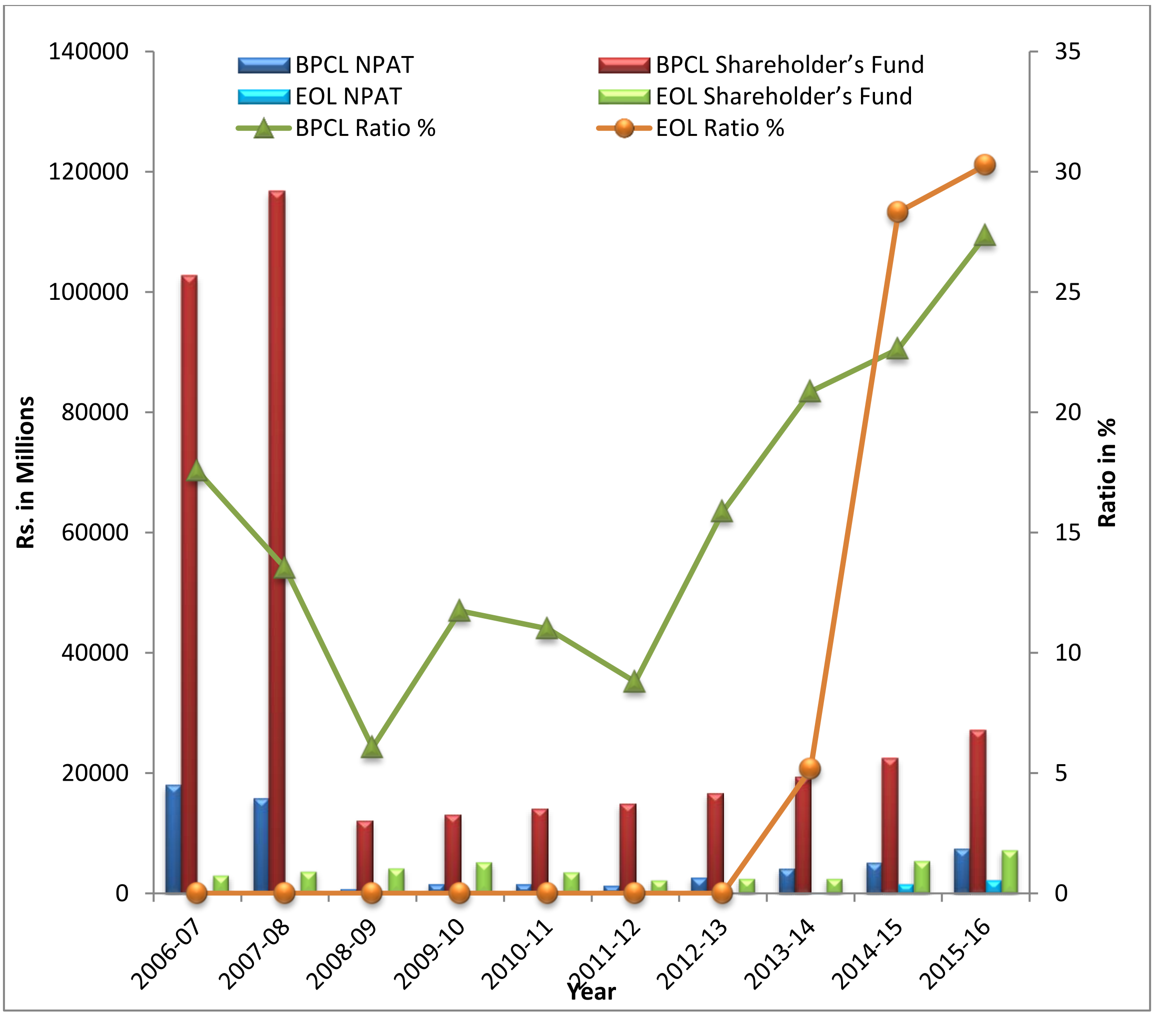
| | | | | | | |
|---|---|---|---|---|---|---|
| 2006-07 | 18054.75 | 102735.41 | 17.57 | 0 | 2995.13 | 0 |
| 2007-08 | 15805.61 | 116768.40 | 13.53 | 0 | 3629.92 | 0 |
| 2008-09 | 735.90 | 12128.11 | 6.06 | 0 | 4135.83 | 0 |
| 2009-10 | 1537.62 | 13086.71 | 11.74 | 0 | 5178.45 | 0 |
| 2010-11 | 1546.68 | 14057.62 | 11.00 | 0 | 3531.73 | 0 |
| 2011-12 | 1311.27 | 14913.86 | 8.79 | 0 | 2180.74 | 0 |
| 2012-13 | 2642.90 | 16634.02 | 15.88 | 0 | 2446.83 | 0 |
| 2013-14 | 4060.88 | 19458.76 | 20.86 | 125.80 | 2430.63 | 5.17 |
| 2014-15 | 5084.51 | 22467.48 | 22.63 | 1521.47 | 5369.62 | 28.33 |
| 2015-16 | 7431.88 | 27158.69 | 27.36 | 2162.29 | 7138.93 | 30.28 |
| **Mean** | **5821.20** | **35940.91** | **15.54** | **380.96** | **3903.78** | **6.38** |
| **AGR** | **-5.88** | **-7.36** | **5.57** | **-** | **13.84** | **-** |
| **SD** | **6222.77** | **39310.79** | **6.64** | **785.63** | **1584.45** | **12.20** |
| **CV** | **106.90** | **109.38** | **42.74** | **206.23** | **40.59** | **191.27** |
| **Correlation** | **0.961878529** | | | **0.806940159** | | |

**(Source: Annual Report of BPCL &NAYARA ENERGY)**

**Comparative Appraisal of Return on Shareholder's Investment of BPCL and NAYARA ENERGY (EOL)**



**Interpretation:**

According to table, it was found that in the BPCL, ROI ratio is fluctuating from 2006-07- 2011-12. In 2006-07 and 2007-08 it was 17.57% and 13.53%. In 2008-09 it is least ratio of study i.e.,6.06%. In 2009-10and 10-11, it is almost same i.e. 11.74% and 11.0%, in the year 2011-12, it has declined to 8.79%, from 2012-13 it is15.88% which is rises up in 2013-14 i.e.20.86% and in 2014-15 and 2015-16, which is 22.63% and 27.36%. The average of ROI Ratio in case of BPCL turned out to be 15.54 with a standard deviation of 6.64 and 42.74 CV indicates a relatively high variation. In the EOL there were not any return on investment from 2006-07 -2012-13. In 2013-14, it is 5.17% and in 2014-15 it is 28.33% and 30.28% in 2015-16. The average of ROI Ratio in case of EOL turned out to be 6.38 with a standard deviation of 12.20 and 191.27 CV indicates a relatively high variation. We interpret that BPCL is using shareholders' funds in a very efficient manner as compare to EOL. We suggest that, EOL should maintain ROI ratio to growth and Development.

**Return on Equity Share Capital**

The ratio is another important profitability ratio which measures the efficiency and ability of a business to yield profits from its share capital in the company. It is also a projector to show the capability of management by using owners fund specially equity for operations and for growing the company.

$$\textbf{Return on Equity Capital} = \frac{\textbf{Net Profit (after Tax) - Preference Dividend}}{\textbf{Equity Share Capital (Paid- up)}} \times 100$$

- NPAT =Net Profit (after Tax) - Preference Dividend
- Equity Share Capital (paid up)

**Significance of Return on Equity Capital:** This is very important ratio for the shareholders. Higher ratio means firm is rising and increasing capability and ability to generate profit in available funds. For comparative study returns on equity is most meaningful among companies in the same industry. We have taken ten years consecutive data of BPCL and EOL for comparative study of returns on equity. In the given table we are calculating Return on Equity Share Capital Ratio of BPCL and EOL with Average of ratio, standard deviation, Coefficient of variation and Annual Growth Rate. The work out data and their outcomes are projected in comparative table

**Comparative Appraisal of Return on Equity Share Capital of BPCL and NAYARA ENERGY (EOL)**

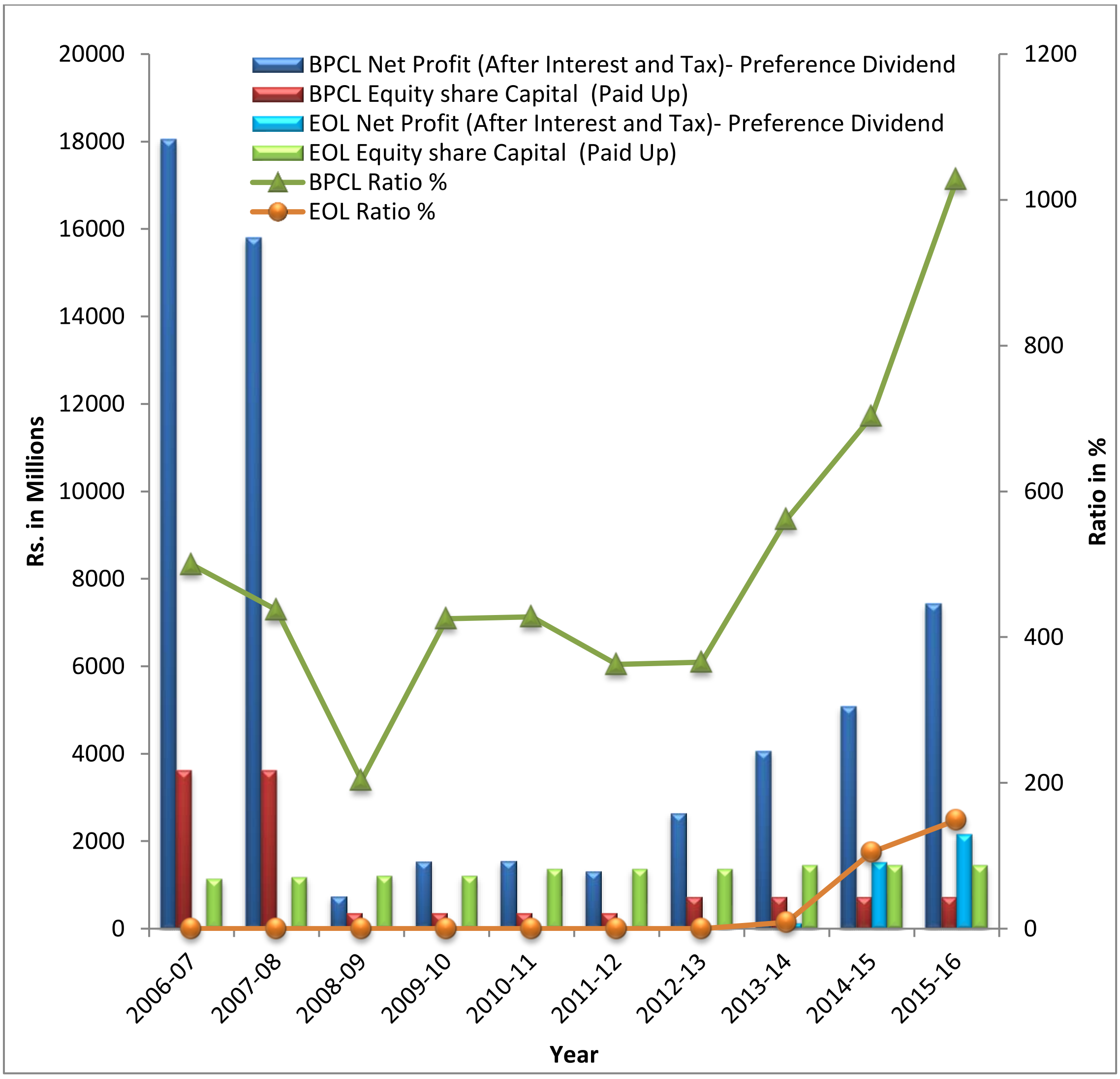
(Rupees in Millions)

| Year | BPCL | | | NAYARA (EOL) | | |
|---|---|---|---|---|---|---|
| | Net Profit (After Interest and Tax)-Preference Dividend | Equity share Capital (Paid Up) | Ratio % | Net Profit (After Interest and Tax)-Preference Dividend | Equity share Capital (Paid Up) | Ratio % |
| 2006-07 | 18054.75 | 3615.42 | 499.38 | 0 | 1139.53 | 0 |
| 2007-08 | 15805.61 | 3615.54 | 437.15 | 0 | 1173.76 | 0 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2008-09 | 735.90 | 361.54 | 203.54 | 0 | 1201.53 | 0 |
| 2009-10 | 1537.62 | 361.54 | 425.29 | 0 | 1201.53 | 0 |
| 2010-11 | 1546.68 | 361.54 | 427.80 | 0 | 1365.67 | 0 |
| 2011-12 | 1311.27 | 361.54 | 362.69 | 0 | 1365.67 | 0 |
| 2012-13 | 2642.90 | 723.08 | 365.50 | 0 | 1365.67 | 0 |
| 2013-14 | 4060.88 | 723.08 | 561.60 | 125.80 | 1449.52 | 8.67 |
| 2014-15 | 5084.51 | 723.08 | 703.17 | 1521.47 | 1449.52 | 104.96 |
| 2015-16 | 7431.88 | 723.08 | 1027.80 | 2162.29 | 1450.67 | 149.05 |
| **Mean** | **5821.20** | **1156.94** | **501.39** | **380.96** | **1316.31** | **26.27** |
| **AGR** | **-5.88** | **-8.00** | **10.58** | **-** | **2.73** | **-** |
| **SD** | **6222.77** | **1306.92** | **226.86** | **785.63** | **124.17** | **54.17** |
| **CV** | **106.90** | **112.96** | **45.25** | **206.23** | **9.43** | **206.21** |
| **Correlation** | **0.967649507** | | | **0.580836749** | | |

**(Source: Annual Report of BPCL &NAYARA ENERGY)**

**Comparative Appraisal of Return on Equity Share Capital of BPCL and NAYARA ENERGY(EOL)**



**Interpretation:**

According to table, the ratio reveals that in BPCL, ratio is fluctuating in first five years of study from 2006-07-10-11. The average of Ratio in case of BPCL turned out to be 501.39 with a standard deviation of 226.86 and 45.25 CV indicates a relatively high variation. In 2006-07 and 07-08 it is 499.38% and 437.15%, in 2008-09 it is 203.54% which is least ratio during the study. In 2009-10 and 10-11 it is 425.29% and 427.80%. If we see in 2011-12 it is in rising trend of 362.69% and 365.50% in 2012-13. In 2013-14 it is 561.60% and in 2014-15 and 2015-16 it is 703.17% and 1027.80%. In EOL, in the first 7 years of study company has no returns on equity share capital means declares no dividend in said years, but in 2013-14, it is 8.67% and in 2014-15 and 2015-16 it is 104.96% and 149.05%. The average of Ratio in case of EOL turned out to be 26.27 with a standard deviation of 54.17 and 206.21 CV indicates a relatively high variation. We can Say after 7 years company has return on equity to pay dividend to its equity shareholders. Comparatively we can say that BPCL has getting return on equity share capital during the study, therefore having control on business and ability to maintain profit so it is better than another company.

**Return on Capital Employed**

Return on Capital Employed is the most used primary ratio and is to measure the efficiency and overall profitability of a business. It is also known as long term Profitability Ratio because it brings out the efficiency of assets performance from long term financing.

$$\textbf{Return on Capital Employed} = \frac{\textbf{Adjusted Net Profit}}{\textbf{Capital Employed}} \times 100$$

- Adjusted Net Profit =Net Profit before Interest tax and Dividend +Non-cash Expenses –Non cash Gains
- Net Capital Employed = Total Assets –Current Liabilities

**Significance of Return on Capital Employed:**

Return on Capital Employed ratio is most powerful ratio to find out the capacity of the companies in generating profits from the investment made by its investors like shareholders and creditors. In the standard norms higher ratio is considered good, it means more profit generated by investing capital employed and lower value shows lower profitability of business. In the given table we are calculating Return on Capital Employed Ratio of BPCL and EOL with Average of ratio, standard deviation, Coefficient of variation and Annual Growth Rate. The work out data and their outcomes are projected in comparative table

**Comparative Appraisal of Return on Capital Employed of BPCL and NAYARA ENERGY(EOL)**

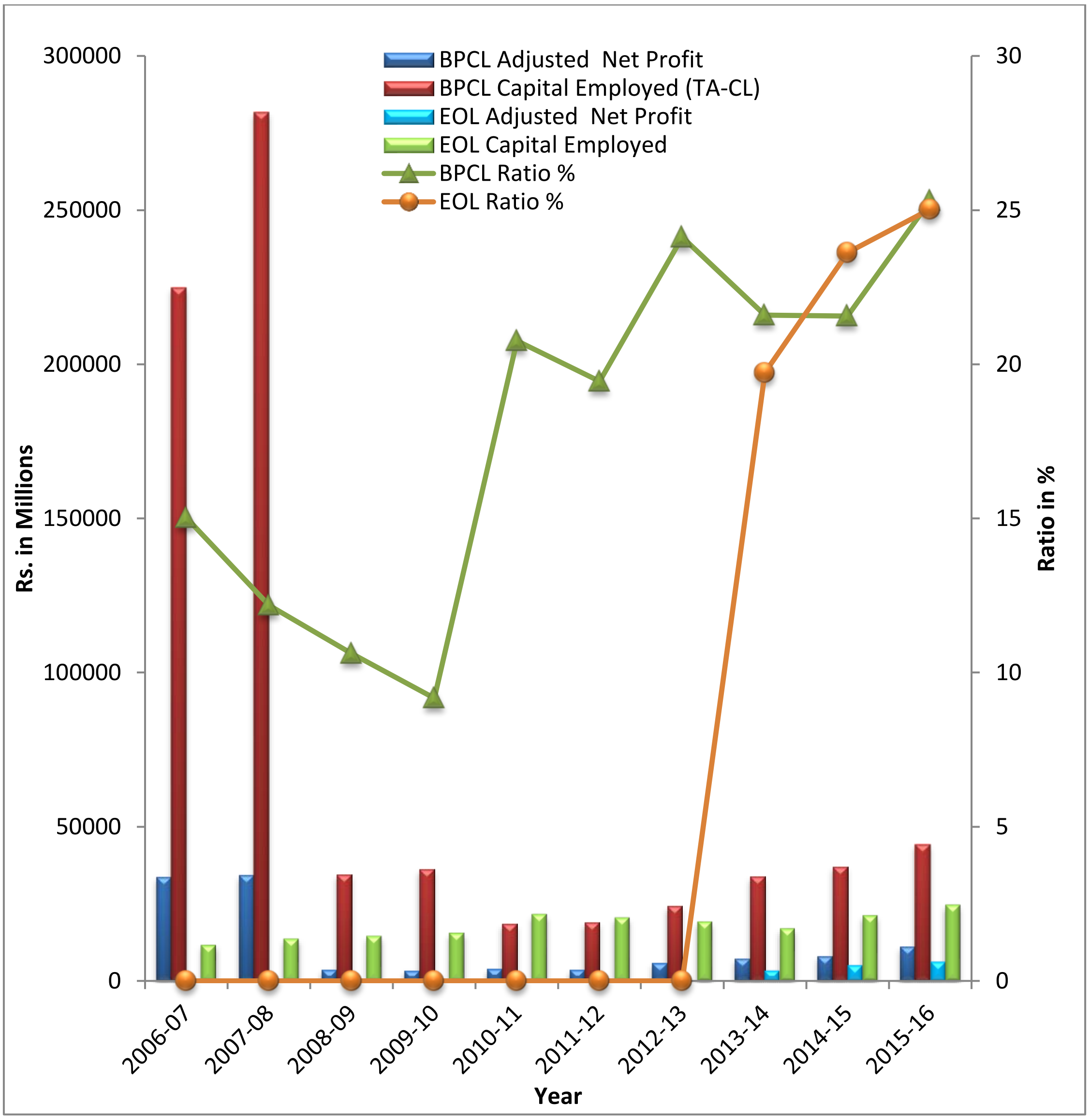
(Rupees in Millions)

| Year | BPCL | | | NAYARA (EOL) | | |
|---|---|---|---|---|---|---|
| | Adjusted Net Profit | Capital Employed (TA-CL) | Ratio % | Adjusted Net Profit | Capital Employed | Ratio % |
| 2006-07 | 33789.3 | 224853.7 | 15.02 | 0 | 11598.67 | 0 |
| 2007-08 | 34328.05 | 281805.81 | 12.18 | 0 | 13677.04 | 0 |
| 2008-09 | 3669.39 | 34538.76 | 10.62 | 0 | 14570.42 | 0 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2009-10 | 3317.06 | 36141.21 | 9.17 | 0 | 15532.18 | 0 |
| 2010-11 | 3839.42 | 18487.99 | 20.76 | 0 | 21578.05 | 0 |
| 2011-12 | 3683.76 | 18939.43 | 19.45 | 0 | 20520.09 | 0 |
| 2012-13 | 5860.93 | 24293.99 | 24.12 | 0 | 19206.77 | 0 |
| 2013-14 | 7308.06 | 33846.07 | 21.59 | 3347.42 | 16959.19 | 19.73 |
| 2014-15 | 7998.61 | 37091.27 | 21.56 | 5006.25 | 21193.4 | 23.62 |
| 2015-16 | 11214.12 | 44290.85 | 25.31 | 6145.59 | 24545.4 | 25.03 |
| **Mean** | **11500.87** | **75428.91** | **17.98** | **1449.93** | **17938.12** | **6.84** |
| **AGR** | **-6.68** | **-8.03** | **6.85** | **-** | **11.16** | **-** |
| **SD** | **12145.89** | **95073.84** | **5.79** | **2427.01** | **4112.47** | **11.09** |
| **CV** | **105.61** | **126.04** | **32.19** | **167.39** | **22.93** | **162.12** |
| **Correlation** | **0.97827103** | | | **0.596973477** | | |

**(Source: Annual Report of BPCL &NAYARA ENERGY)**

**Comparative Appraisal of Return on Capital Employed of BPCL and NAYARA ENERGY(EOL)**



**Interpretation:**

According to table, it was found that in BPCL the ratio is fluctuating during the study. In 2006-07 it is 15.02% in 2007-08 it is 12.18%, in 2008-09 it is 10.62% showing decreasing trend again in 2009-10 i.e., 9.17% but in 2010-11 it is increased to 20.67% and decrease in 2010-11 to 19.45%. In the year 2012-13 with 24.12% ratio raising till the year 2015-16 it is 21.59 % in 2013-14, 21.56 % in 2014-15 and 25.31%. The average of Ratio in case of BPCL turned out to be 17.98 with a standard deviation of 5.79 and 32.19 CV indicates a relatively high variation. The average of Ratio in case of EOL turned out to be 6.84 with a standard deviation of 11.09 and 162.12 CV indicates a relatively high variation. In EOL first 7 years of study company has no returns on capital employed but in last three years of study i.e. in 2013-14 it is 19.73% and in 2014-15 and 2015-16 it is 23.62% and 25.03%, which shows that after seven years company get a pace to take growth and having returns on capital employed in increasing trend, this is a positive indication. In comparison we can say, BPCL has better overall efficiency of business as compare to EOL. We may suggest that both the companies should have aims to make optimum use of resources for increasing the rate of profit on investment.

**Earnings per Share**

The Earning per share is a true measuring stick of profitability and known as important financial measure. It gives a view of the earnings power of a firm. EPS is an indicator of company's Profitability. EPS also recognized as, Net Income per share or as market prospect ratio.

$$\textbf{Earnings per Share} = \frac{\textbf{Net Profit after tax – Preference Dividend}}{\textbf{Number of Equity Shares}} \times 100$$

- Net Profit after tax –Preference Dividend
- Number of equity shares

**Significance of Earning per share:**

The EPS ratio considered as single important ratio to calculate the price of the share. This is also used as a major component to calculate price earnings ratio.. Higher ratio is considered as good than a lower ratio. It means firm generates more profits to distribute to its common stock holders. EPS calculated to compare the profitability of BPCL and EOL on shareholders basis by using ten years consecutive data. In the given table we are calculating Return on Earning per Share Ratio of BPCL and EOL with Average of ratio, standard deviation, Coefficient of variation and Annual Growth Rate. The work out data and their outcomes are presented in comparative table

**Comparative Appraisal of Earning per Share of BPCL and NAYARA ENERGY(EOL)**

(Amount in Millions)

| Year | BPCL | | | NAYARA(EOL) | | |
|---|---|---|---|---|---|---|
| | Net Profit (After Interest and Tax and | Number of Equity Share | Ratio | Net Profit (After Interest and Tax and | Number of Equity Share | Ratio |

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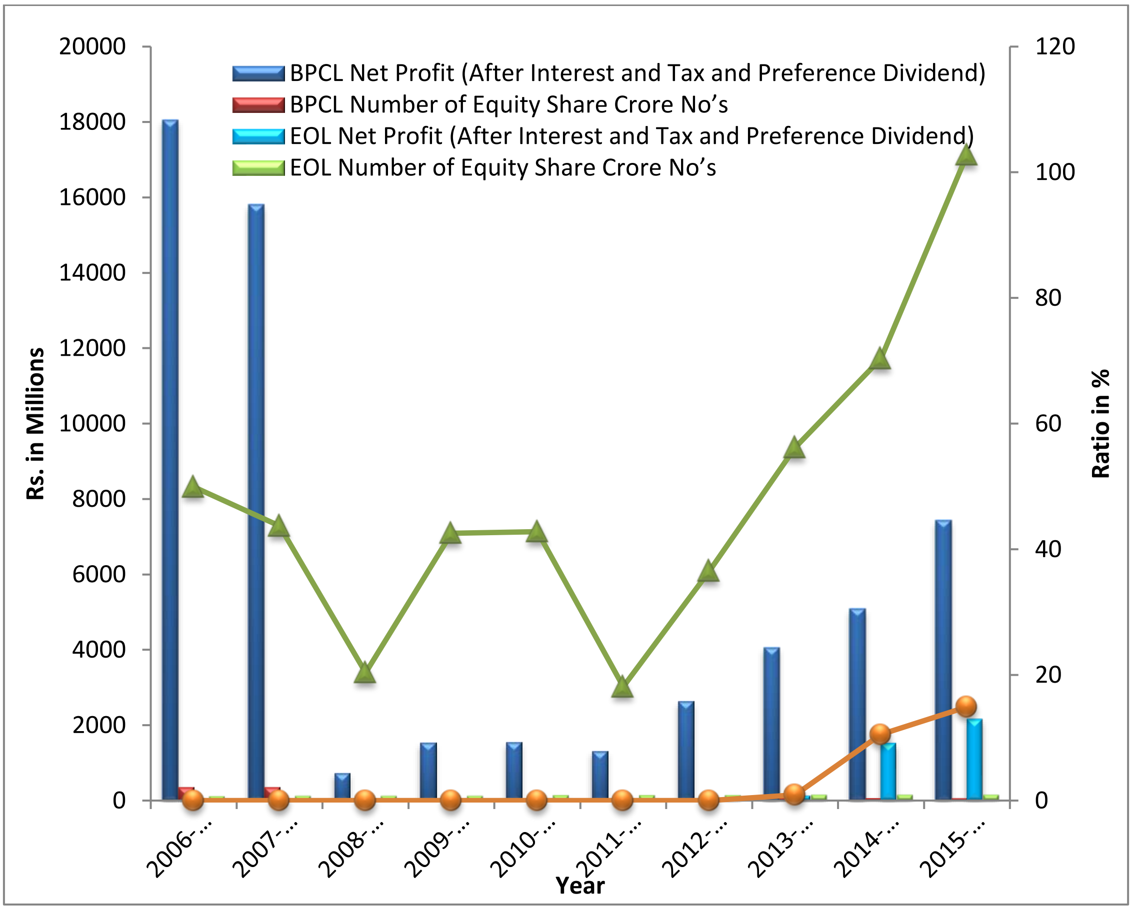
| | Preference Dividend) | | | Preference Dividend) | | |
|---|---|---|---|---|---|---|
| 2006-07 | 18054.75 | 361.54 | 49.94 | 0 | 110.25 | 0 |
| 2007-08 | 15805.61 | 361.54 | 43.71 | 0 | 113.96 | 0 |
| 2008-09 | 735.9 | 36.15 | 20.35 | 0 | 119.32 | 0 |
| 2009-10 | 1537.62 | 36.15 | 42.53 | 0 | 120.09 | 0 |
| 2010-11 | 1546.68 | 36.15 | 42.78 | 0 | 134.59 | 0 |
| 2011-12 | 1311.27 | 72.31 | 18.13 | 0 | 136.6 | 0 |
| 2012-13 | 2642.9 | 72.3 | 36.55 | 0 | 136.62 | 0 |
| 2013-14 | 4060.88 | 72.31 | 56.16 | 125.8 | 139.77 | 0.9 |
| 2014-15 | 5084.51 | 72.31 | 70.32 | 1521.47 | 144.48 | 10.53 |
| 2015-16 | 7431.88 | 72.31 | 102.78 | 2162.29 | 145.02 | 14.91 |
| **Mean** | **5821.20** | **119.31** | **48.33** | **380.96** | **130.07** | **2.63** |
| **AGR** | **-5.88** | **-8.00** | **10.58** | **-** | **3.15** | **-** |
| **SD** | **6222.77** | **128.73** | **24.57** | **785.63** | **12.90** | **5.42** |
| **CV** | **106.90** | **107.90** | **50.84** | **206.23** | **9.92** | **205.86** |
| **Correlation** | **0.95976787** | | | **0.607942816** | | |

**(Source: Annual Report of BPCL &NAYARA ENERGY)**

**Comparative Appraisal of Earning per Share of BPCL and NAYARA ENERGY (EOL)**




**Interpretation:**

According to table, EPS ratio was found that in BPCL, it is fluctuating during the study. In 2006-07 it is 51.19%, which is a decrease in 2007-08 to 43.71%. In 2008-09, it is least ratio with 20.35%. In 2008-09 it is least ratio with 20.35%. In 2009-10 and 2010-11 company has almost same ratio 42.53% and 42.78%. From 2011-12 we have seen an increasing trend with 18.13%,36.55% and 56.16% in 2012-13 and 13-14. In 14-15 and 15-16 it is 70.32% and 102.78%, which is highest ratio during the study, shows good earning capacity of the firm. The average of Ratio in case of BPCL turned out to be 48.33 with a standard deviation of 24.57 and 50.84 CV indicates a relatively high variation. In case of EOL company has no return on equity capital, therefore having negative earnings per share in seven years of study. In the last three years, of study situations are in the control with positive sign of ratio. In the year 2013-14 it is 0.90%, in the year 2014-15 it is 10.53% and in 2015-16 it is 14.91%. The average of Ratio in case of EOL turned out to be 2.63 with a standard deviation of 5.42 and 205.86 CV indicates a relatively high variation. The trend shows that company can increase earnings per share in coming years. Comparatively BPCL has better position.

**Return on Assets**

Return on Assets in short known as ROA It is another important Profitability Ratio which indicates the efficiency of company to use its assets to generate profits.. This ratio is frequently calculated by the stock holders to gauge the profitability of a company.

$$\textbf{Return on Assets} = \frac{\textbf{Net Profit after tax}}{\textbf{Average Total Assets}} \times 100$$

- Net Profit after tax
- Average Total Assets = Total Assets / 2

**Significance of Return on Assets:** ROA is most important ratio to know about returns on investing assets. The higher ratio is taken as the better, because a higher ratio shows that the company generates relatively higher profits in comparison to its asset base means, company is more capital efficient. A positive ratio means high ratio shows an upward trend of profit. A low ratio expresses the low return on assets and showcases the inefficient use of assets. In the given table we are calculating Return on Return on Assets Ratio of BPCL and EOL with Average of ratio, standard deviation, Coefficient of variation and Annual Growth Rate. The work out data and their outcomes are presented in comparative table

**Comparative Appraisal of Return on Assets of BPCL and NAYARA ENERGY(EOL)**

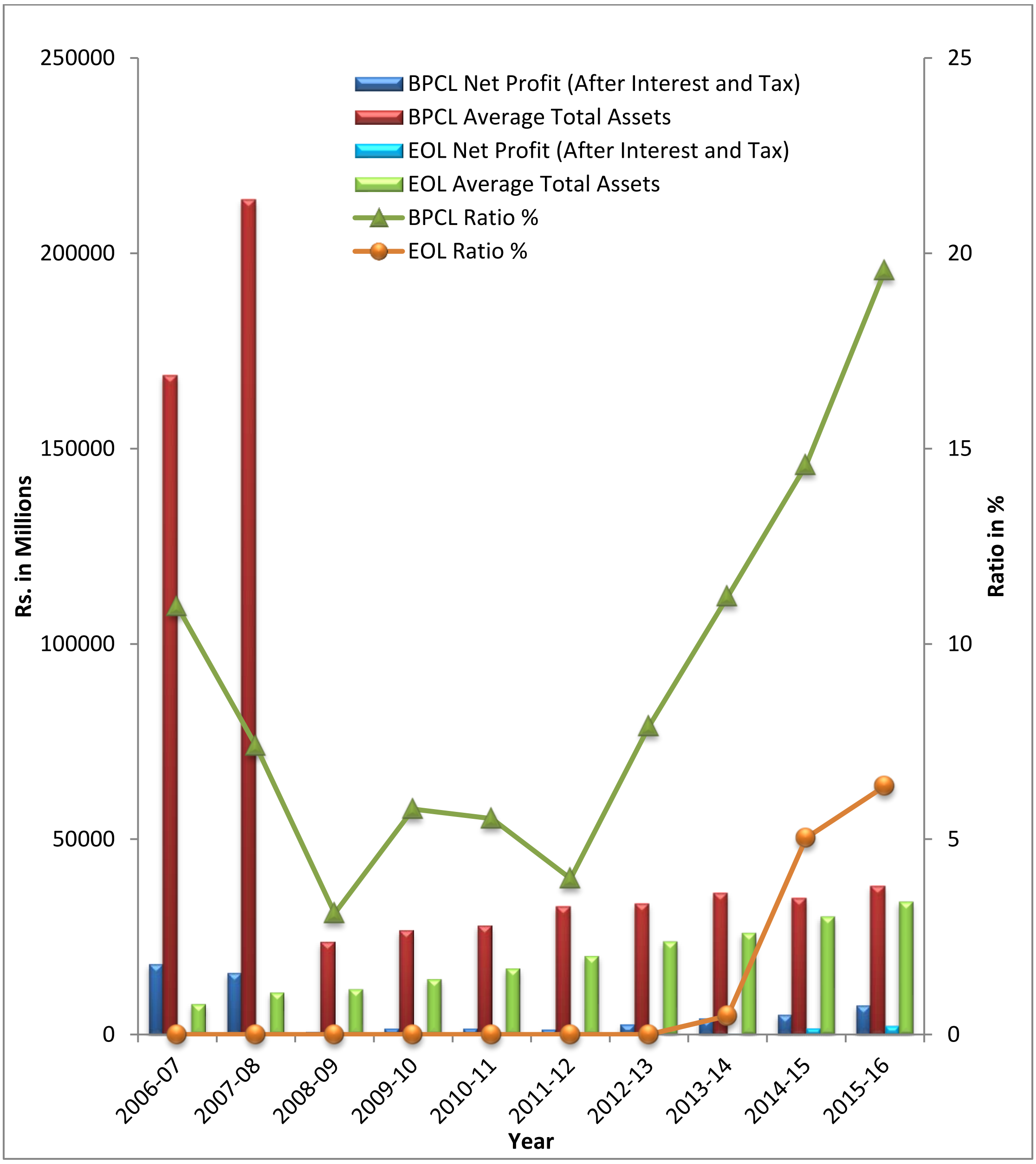
(Rupees in Millions)

| Year | BPCL | | | NAYARA (EOL) | | |
|---|---|---|---|---|---|---|
| | Net Profit (After Interest and Tax) | Average Total Assets | Ratio % | Net Profit (After Interest and Tax) | Average Total Assets | Ratio % |
| 2006-07 | 18054.75 | 168810.25 | 10.96 | 0 | 7788.08 | 0 |
| 2007-08 | 15805.61 | 213804.21 | 7.39 | 0 | 10702.63 | 0 |
| 2008-09 | 735.90 | 23685.04 | 3.10 | 0 | 11571.33 | 0 |
| 2009-10 | 1537.62 | 26636.18 | 5.77 | 0 | 14172.28 | 0 |
| 2010-11 | 1546.68 | 27937.97 | 5.53 | 0 | 16894.68 | 0 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2011-12 | 1311.27 | 32803.49 | 3.99 | 0 | 20044.81 | 0 |
| 2012-13 | 2642.90 | 33493.69 | 7.89 | 0 | 23782.92 | 0 |
| 2013-14 | 4060.88 | 36213.70 | 11.21 | 125.8 | 26032.13 | 0.48 |
| 2014-15 | 5084.51 | 34864.44 | 14.58 | 1521.47 | 30211.00 | 5.03 |
| 2015-16 | 7431.88 | 37994.70 | 19.56 | 2162.29 | 33995.69 | 6.36 |
| **Mean** | **5821.20** | **63624.37** | **9.00** | **380.96** | **19519.56** | **1.19** |
| **AGR** | **-5.88** | **-7.75** | **7.85** | **-** | **33.65** | **-** |
| **SD** | **6222.77** | **68270.70** | **5.14** | **785.63** | **8811.32** | **2.40** |
| **CV** | **106.90** | **107.30** | **57.10** | **206.23** | **45.14** | **202.29** |
| **Correlation** | **0.931938593** | | | **0.776663373** | | |

**(Source: Annual Report of BPCL &NAYARA ENERGY)**

**Comparative Appraisal of Return on Assets of BPCL and NAYARA (EOL)**



**Interpretation:**

According to table, it was noticed that the ratio is having ups and down during the study in BPCL company. In 2006-07 it is 10.96% which is decreasing in 2007-08 i.e.,7.39%. In 2008-09 again it is decreasing 103.10%, this is the least ratio of study. In 2009-10 it is 5.77%, which is almost constant in 2010-11 i.e., 5.53%. In 2011-12 the ratio is decreasing to 3.99% and increasing to 7.89% in 2012-13. In 201-14 ratio is increasing to 11.21% and it is still increasing trend in 2014-15 and 2015-16 i.e., 14.58% and 19.56%, we can say that, company has efficiency to convert assets into gains but it is not same or increasing with the years. The average of Ratio in case of BPCL turned out to be 9.00 with a standard deviation of 5.14 and 57.10 CV indicates a relatively high variation. In case of EOL from 2006-07 2012-2013 company has not converting its assets into profits, but from the year 2013-14 ratio is 0.48% and in 2014-15 and 2015-16, it is 5.03% and 6.36%, which depicts that in last three years of study company become efficient to convert its assets investment into gains. The average of Ratio in case of BPCL turned out to be 1.19 with a standard deviation of 2.40 and 202.29 CV indicates a relatively high variation. We conclude that, comparatively BPCL is better. EOL should improve and maintain its efficiency to convert assets base into profit.

**Hypothesis testing-**

The Hypothesis for the study is "**There is no significant difference in profitability position of Bharat Petroleum Corporation Limited (BPCL) and Essar Oil Limited (EOL)"** To test the authenticity of the Hypothesis, we have Applied Correlation to find out degree of relation between the variables and have applied t-test to find significant value of 'r' and for getting the value of 't' which is necessary to design the inferences of the study. To draw inferences related to hypothesis we have used ratio analysis as a tool to get statistical results and analyse company's profitability solvency working capital position fixed assets management as well as the overall capital structure of BPCL and EOL. The table shows the components of Profitability ratio of BPCL and EOL. The table depicts about relation between the components, value of 'r' Degree of Correlation, value of 't' and results.

**Hypothesis (H01): There is no significant difference in Profitability position of Bharat Petroleum Corporation Limited (BPCL) and Essar Oil Limited (EOL)**

| | **Ratio** | **Relation Between the Components** | **Table Value** | **Value of "r"** | **Degree of Correlation** | **Value of "t"** | **Result** | **Value of "r"** | **Degree of Correlation** | **Value of "t"** | **Result** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **BPCL** | | | | **EOL** | | | |
| 1 | Gross Profit Ratio | Gross Profit and Net Sales | 1.86 | 0.98 | High Degree Correlation | 13.72 | t > t0.05, value of r is not significant **Null Hypoth** | 0.84 | High Degree Correlation | 4.33 | t > t0.05, value of r is not significant **Null Hypothesis is** |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **esis is rejected** | | | | **rejected** |
| 2 | Operating Ratio | Operating Cost and Net sales | 1.86 | 0.99 | Very High Degree Correlation | 19.94 | t > t0.05, value of r is not significant **Null Hypothesis is rejected** | 0.99 | Very High Degree Correlation | 19.94 | t > t0.05, value of r is not significant **Null Hypothesis is rejected** |
| 3 | Net Profit Ratio | Net Profit and Net Sales | 1.86 | 0.94 | High Degree Correlation | 7.77 | t > t0.05, value of r is not significant **Null Hypothesis is rejected** | 0.25 | Very Low Degree Correlation | 0.72 | t < t0.05, value of r is significant **Null Hypothesis is Accepted** |
| 4 | Operating Profit Ratio | Operating Profit and Net Sales | 1.86 | 0.90 | High Degree Correlation | 5.96 | t > t0.05, value of r is not significant **Null Hypothesis is rejected** | 0.66 | Moderate Degree Correlation | 2.48 | t > t 0.05, value of r is not significant **Null Hypothesis is rejected** |
| 5 | Cash Profit Ratio | Cash Profit and Net sales | 1.86 | 0.92 | High Degree Correlation | 6.55 | t > t0.05, value of r is not significant **Null Hypothesis is rejected** | 0.38 | Moderate Degree Correlation | 1.15 | t < t0.05, value of r is significant **Null Hypothesis is Accepted** |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | Return on Shareholders' Investment Ratio | Net Profit and Share Holders Fund | 1.86 | 0.96 | High Degree Correlation | 9.66 | t > t0.05, value of r is not significant **Null Hypothesis is rejected** | 0.80 | High Degree Correlation | 3.75 | t > t0.05, value of r is not significant **Null Hypothesis is rejected** |
| 7 | Return on Equity Share Capital Ratio | Net Profit and Equity Share Capital | 1.86 | 0.96 | High Degree Correlation | 9.66 | t > t0.05, value of r is not significant **Null Hypothesis is rejected** | 0.58 | Moderate Degree Correlation | 2.01 | t > t0.05, value of r is not significant **Null Hypothesis is rejected** |
| 8 | Return on Capital Employed | Adjusted Net Profit and Capital Employed | 1.86 | 0.97 | High Degree Correlation | 11.51 | t > t 0.05, value of r is not significant **Null Hypothesis is rejected** | 0.59 | Moderate Degree Correlation | 2.07 | t > t0.05, value of r is not significant **Null Hypothesis is rejected** |
| 9 | Earnings Per Share | Net Profit and No. of Equity Shares | 1.86 | 0.95 | High Degree Correlation | 8.64 | t > t 0.05, value of r is not significant **Null Hypothesis is rejected** | 0.60 | Moderate Degree Correlation | 2.11 | t > t 0.05, value of r is not significant **Null Hypothesis is rejected** |
| 10 | Return on Assets | Net Profit and | 1.86 | 0.93 | High Degree | 7.28 | t > t 0.05, value of | 0.77 | High Degree | 3.44 | t > t 0.05, value of |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Average Total Assets | | | Correlation | | r is not significant **Null Hypothesis is rejected** | | Correlation | | r is not significant **Null Hypothesis is rejected** |

**Interpretation:**

**Decision:** According to profitability Ratio It is found that all the ratios of BPCL is not presenting a significant value of 'r' that means the values of the variables are not significant in the 10 consecutive years of study.

According to profitability Ratio of EOL It is found that, all the ratios of Company is not presenting a significant value of 'r' that means the values of the variables are not significant in the 10 consecutive years of study. Only Net profit ratio has the value of 'r' significantly. we can say that company is getting net profit of almost same rates during 10 consecutive years.

After the analysis, we found that, in **BPCL** the value of 'r' in all the ratios is not significant. That means, the overall profitability position of the company is having significant changes for the ten consecutive years of study or there is significant difference between the profitability positions of BPCL. Hence, **Null Hypothesis is rejected and Alternative Hypothesis will be accepted.** After the analysis, **EOL** Company we found that, the value of 'r' in most of the ratios is not significant. That means, the overall profitability position of the company is having significant changes for the ten consecutive years of study or there is significant difference between the profitability positions of EOL. Hence, **Null Hypothesis is rejected and Alternative Hypothesis will be accepted.**

## FINDINGS AND SUGGESTIONS

- As per Standard norms both the companies have not reach the limit of 20-30% ratio. We suggest that companies must control on Cost of goods Sold to improve the Gross Profit Ratio. BPCL has better profitability position as compare with EOL.
- Operating Ratio indicates that the companies have less margin of operating profit to cover interest, Income tax, Dividend, and reserves. Companies need to control on their Operating Expenses and Cost of sales for progressing.
- The Net Profit ratio speaks about the satisfactory position of the BPCL. Company has achieved return on investment throughout the period, as compare to EOL. Company was struggling in seven years of study for sufficient return on Investment but increasing trends in the last three years indicates about the good hope for the company. We suggest that the companies must control on operating and non-operating expenses to improve their net profit ratio.
- In Operating Profit ratio, BPCL has better position than EOL. Company is having more operational capabilities and efficiency to pay non-operating expenses. We suggest that EOL must control on their operating cost.
- Cash position of BPCL is better than EOL; BPCL has generated more cash profit during the whole period of study and having good position.

- Return on Shareholders' Investment Ratio shows that the BPCL is using shareholders' funds in a very efficient manner as compare to EOL. EOL should need to frame policies and proper decisions to utilize owner's fund.
- Return on assets ratio depicts that in last three years of study EOL, company become efficient to convert its assets investment into gains. BPCL Company succeeded in converting investment of assets into Profit so comparatively BPCL is in better position than EOL. Company should improve and maintain its efficiency to convert assets base into profit.

## CONCLUSION

A Business concern can release its indebtedness to the diverse section of the society only through returns or profits. Profits are known as utilitarian criteria to know about whole competency of a business. Profitability ratios are computed to assess the total efficiency of the business. A comparison of Profitability ratios for unlike firms in the like industry gives true picture about concerns and indicates about the areas of improvement. The profitability of two unlike companies of same industry has been discussed in the chapter. The companies are BPCL and NAYARA ENERGY (EOL); former is government owned company and later is private owned company of oil sector in India. The total 11 ratios have been studied in the chapter. Out of which five ratios are general profitability ratios and six are overall profitability ratios. General Profitability ratios let in Gross, Net, Operating and cash profit ratios and overall profit ratios admit Return on equity share capital, return on capital employed, Return on Assets Return on shareholders' Investment, Earning Per share, and Capital Turnover Ratios.

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