PROFITABILITY ANALYSIS OF THE MAHARATNA COMPANIES

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Abstract
The research paper focuses on the analyses of profitability of the seven Maharatna companies in India during the period of 2014 to 2017. A comparison is made on the basis of five commonly used financial performance indicators: Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin, Return on Capital Employed (ROCE) and Earning per Share (EPS). The paper also enhances the knowledge of the investor about the growth of the Maharatna public sector enterprises.

Key Words Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin, Return on Capital Employed (ROCE), Earning per Share (EPS).

Introduction
In 1947, when India became independent, there were various socio-economic problems confronting the country which needed to be dealt with in a planned and systematic manner. India at that time was primarily an agrarian economy with a weak industrial base, low level of savings, inadequate investments and lack of infrastructure facilities. There existed considerable inequalities in income and levels of employment, glaring regional imbalances in economic development and lack of trained manpower. As such, the State's intervention in all the sectors of the economy was desirable and inevitable since private sector neither had the resources, managerial and neither scientific skill, nor the will to undertake the risks associated with large, long-gestation investment. The rationale for setting up public enterprises was to ensure easier availability of vital articles of mass consumption, to introduce checks on prices of important products, help promote emerging areas like tourism, etc. A large number of enterprises were created out of "Sick Units" taken over from the private sector inter alia, to protect the interests of the workers. A number of public enterprises were created to operate in national and international trade, consultancy, contract and construction services, inland and overseas communications, etc. The overall constitution of public sector enterprises in India is, thus, a heterogeneous conglomeration of basic and infrastructure industries, industries producing consumer goods, industries engaged in trade and services etc.

The Public Enterprises can be classified into three broad categories:
1. CPSEs (Central Public Sector Enterprises) - Companies where the direct holding of the Central Government or of other CPSEs is 51% or more
2. PSBs (Public Sector Banks) - Banks where the direct holding of the Central/State Government or other PSBs is 51% or more
3. SLPEs (State Level Public Enterprises) - Companies where the direct holding of the State Government or other SLPEs is 51% or more. Various PSUs have been awarded additional financial autonomy. These companies are public sector companies that have comparative advantages, giving them greater autonomy to compete in the global market so as to support them in their drive to become global giants. Based on the financial autonomy, PSEs are categorized into three categories: Maharatna, Navratna, and Miniratna.

Maharatna
In 2009, the government established the Maharatna status, which raises a company’s investment ceiling from Rs. 1,000 crore to Rs. 5,000 crore. The Maharatna firms would now be free to decide on investments up to 15% of their net worth in a project. Earlier, the Navaratna companies could invest up to Rs 1,000 crore without government approvals. The PSEs fulfilling the following criteria are eligible to be considered for grant of Maharatna status.

1. Having Navratna status.
2. Listed on Indian stock exchange with minimum prescribed public shareholding under SEBI regulations.
3. Average annual turnover of more than Rs. 25,000 crore, during the last 3 years.
4. Average annual net worth of more than Rs. 15,000 crore, during the last 3 years.
5. Average annual net profit after tax of more than Rs. 5,000 crore, during the last 3 years.
6. Should have significant global presence/international operations.

The Maharatna PSUs can decide on investments of up to Rs. 1,000 crore - Rs. 5,000 crore, or free to decide on investments up to 15% of their net worth in a project. Seven Companies fall under this category.

Navratna
The Navratna status is offered to PSEs, which gives a company enhanced financial and operational autonomy and empowers it to invest up to Rs. 1000 crore or 15% of their net worth on a single project without seeking government approval. In a year, these companies can spend up to 30% of their net worth not exceeding Rs. 1000 crore. They will also have the freedom to enter joint ventures, form alliances and float subsidiaries abroad. There are seventeen companies which have been conferred the Navaratna status.

Criteria for grant of Navratna status:- The Miniratna Category – I and Schedule ‘A’ CPSEs, which have obtained ‘excellent’ or ‘very good’ rating under the Memorandum of Understanding system in three of the last five years, and have composite score of 60 or above in the six selected performance parameters, namely,

1. Net profit to net worth,
2. Manpower cost to total cost of production/services,
3. Profit before depreciation, interest and taxes to capital employed,
4. Profit before interest and taxes to turnover,
5. Earning per share and
6. Inter-sectoral performance.

Miniratna
In addition, the government created another category called Miniratna. Miniratnas can also enter into joint ventures, set subsidiary companies and overseas offices but with certain conditions.

Category I
This designation applies to PSEs that have made profits continuously for the last three years or earned a net profit of Rs. 30 crore or more in one of the three years. These Miniratnas granted certain autonomy like incurring capital expenditure without government approval up to Rs. 500 crore or equal to their net worth, whichever is lower.
Category II
This category includes those PSEs which have made profits for the last three years continuously and should have a positive net worth. Category II Miniratnas have autonomy to incurring the capital expenditure without government approval up to Rs. 300 crore or up to 50% of their net worth whichever is lower.

Criteria for grant of Miniratna status:-
The CPSEs which have made profits in the last three years continuously and have positive net worth are eligible to be considered for grant of Miniratna status. Two categories of "Miniratnas" afford less extensive financial autonomy. Miniratna companies could invest up to Rs. 300 crore or up to 50% of their net worth, whichever is lower without explicit government approval.

The following seven enterprises have the Maharatna status:-

(i) National Thermal Power Corporation Limited (NTPC)
NTPC Ltd. is an Indian Public Sector Undertaking, established in 1975, engaged in the business of generation of electricity and allied activities. NTPC's core business is generation and sale of electricity to state-owned power distribution companies and State Electricity Boards in India. The company also undertakes consultancy and turnkey project contracts that involve engineering, project management, construction management and operation and management of power plants. The headquarters of NTPC Ltd is situated in New Delhi. It was conferred Maharatna status by the Government of India in 2010.

(ii) Steel Authority of India (SAIL)
SAIL was incorporated by the Government of India in 1973. SAIL operates and owns 5 integrated steel plants at Bhilai, Rourkela, Durgapur, Bokaro and Burnpur (Asansol) and 3 special steel plants at Salem, Durgapur and Bhadravathi. SAIL produces Steel, flat steel products, long steel products, wire products, Wheel and axle for Indian railways, plates etc. The headquarters of SAIL is in New Delhi. The Maharatna status was given to SAIL in 2010.

(iii) Coal India Limited (CIL)
Coal India Limited (CIL) is an Indian public sector coal mining company headquartered in Kolkata, West Bengal, India, founded in 1975. It is the largest coal producer company in the world and contributes around 82% of the coal production in India. In 2011, CIL was conferred the Maharatna status by the Government of India.

(iv) Oil and Natural Gas Corporation (ONGC)
Oil and Natural Gas Corporation Limited (ONGC) is an Indian multinational oil and gas company, established in 1956, headquartered in Dehradun, Uttarakhand, India. It is a Public Sector Undertaking (PSU) of the Government of India, under the administrative control of the Ministry of Petroleum and Natural Gas. It is India's largest oil and gas exploration and production company. It produces around 77% of India's crude oil (equivalent to around 30% of the country's total demand) and around 62% of its natural gas. It was conferred with Maharatna status by the Government of India in 2010.

(v) Gas Authority India Limited (GAIL)
Gas Authority India Limited, founded in 1984, is the largest public sector natural gas processing and distribution company in India. It is headquartered in New Delhi. It has the following business segments: natural gas, liquid hydrocarbon, liquefied petroleum gas transmission, petrochemical, city gas distribution, exploration and production, GAILTEL and electricity generation. GAIL was conferred with the Maharatna status in 2013, by the Government of India.

(vi) Indian Oil Corporation (IOC)
Indian Oil Corporation (Indian Oil) is an Indian PSU, founded in 1959 Indian Oil's business interests overlap the entire hydrocarbon value-chain, including refining, pipeline transportation, marketing of petroleum products, exploration and production of crude oil, natural gas and petrochemicals. Also, Indian Oil has ventured into alternative energy and globalization of downstream operations. The Maharatna status was conferred to IOC in 2010.
(vii) Bharat Heavy Electricals Limited (BHEL)
BHEL is an engineering and manufacturing company founded by the Government of India in 1964. BHEL is engaged in the design, engineering, manufacturing, construction, testing, commissioning and servicing of a wide range of products, systems and services for the core sectors of the economy, viz. power, transmission, industry, transportation, renewable energy, oil & gas and defence. It has its headquarters in New Delhi. The Government of India granted the Maharatna status to BHEL in 2013.

Literature Review
Padma (2016) conducted a study to analyze the financial performance of the selected companies in the steel industry on the basis of six ratios, which include Return on Capital Employed (ROCE) and Earning per Share (EPS). The study concluded that the position of APL Apollo Steel and Tata Steel is better than other in the industry. Lakshmi and Narasa (2013) have studied for five years to know the financial soundness of Cipla Ltd using various ratios and concluded that overall performance of Cipla Ltd was up to the mark. Koradia (2013) has examined the profitability of three public sector oil companies. He has used four ratios (Operating Profit, Gross Profit, Net profit and Capital employed ratio) and found that there is the significant difference between profitability ratios over the year except for return on capital employed.

Research Methodology
The study is based on secondary data which has been collected from the websites, annual reports, and newspapers. The data has been collected for the last three financial years (FY 2014-15 to FY 2016-17). Ratio analysis technique is used to evaluate the profitability and growth of the seven Maharatna Companies.

Objective of Study
- To assess the performance of the seven Maharatna Companies.
- To make a comparison on the basis of profitability and growth of the seven Maharatna Companies.
- To analyze the trend in the profitability and growth of the seven Maharatna Companies.
- To find out the best performing Maharatna company in the past three years.

Hypotheses of Study
Ho- There is no significant difference in Return on Asset (ROA) between the companies and between years.
Ho- There is no significant difference in Return on Equity (ROE) between the companies and between years.
Ho- There is no significant difference in Net Profit Margin between the companies and between years.
Ho- There is no significant difference in Return on Capital Employed (ROCE) between the companies and between years.
Ho- There is no significant difference in Earning per Share (EPS) between the companies and between years.

Analysis and Discussion
Return on Assets
The return on assets ratio is a profitability ratio that measures the net income produced by total assets during a period by comparing net income to the average total assets. The return on assets ratio or ROA measures how efficiently a company can manage its assets to produce profits during a period. A higher ratio is more favorable to investors because it shows that the company is more effectively managing its
assets to produce greater amounts of net income. A positive ROA ratio usually indicates an upward profit
trend as well. 

\[ \text{Return on Asset Ratio} = \frac{\text{Net Income}}{\text{Average Total Assets}} \]

The graph shows ROA of the seven Maharatna companies. CIL had the highest ROA in all three
tears, 12.78% in FY 2014-15, 12.93% in FY 2015-16 and 8.19% in FY 2016-17. The ROA of NTPC
remained almost constant for all three years, 4.76% in FY 2014-15, 4.43% in FY 2015-16 and 4.38% in FY
2016-17. SAIL had minimum ROA among all Maharatna companies for last two years. It reported the
loss in FY 2015-16 and FY 2016-17. ROA of SAIL in FY 2014-15 was 2.21%, -4.25% in FY 2015-16
and -2.65% in FY 2016-17.

ROA of ONGC fell to 4.17% in FY 2015-16 from 5.53% in FY 2014-15, but it made a recovery in FY
2016-17 with the ROA of 5.64%. IOC is on rising trend with 1.96% ROA in FY 2014-15, 4.72% in FY
2015-16 and 7.91% in FY 2016-17. In FY 2015-16 BHEL had negative returns, its ROA was -1.28%
whereas in FY 2014-15 it had ROA of 1.99% and in 0.72% in FY 2016-17.

**Return on Equity**

The return on equity ratio or ROE is a profitability ratio that measures the ability of a firm to generate
profits from its shareholder’s investments in the company. The return on equity ratio shows how much
profit each rupee of common stockholders' equity generates. This is an important measurement for
potential investors because they want to see how efficiently a company will use their money to generate
net income. ROE is also an indicator of how effective management is at using equity financing to fund
operations and grow the company. Higher ratios are almost always better than lower ratios.

\[ \text{Return on Equity Ratio} = \frac{\text{Net Income}}{\text{Shareholder’s Equity}} \]
ROE for the seven Maharatna Companies for the three year are shown in the graph. CIL outperformed in all three years with 33.17% ROE in FY 2014-15, 38.45% in FY 2015-16 and 31.72% in FY 2016-17. BHEL had minimum ROE in FY 2014-15 (i.e. 4.31%), while SAIL had minimum ROE for both FY 2015-16 (i.e. -10.21%) and FY 2016-17 (i.e. -7.16%). NTPC had almost constant ROE for all the three years, 11.79% in FY 2014-15, 11.89% in FY 2015-16 and 11.46% in FY 2016-17. ROE of ONGC in FY 2014-15 was 10.4%, then it fell to 7.73% in FY 2015-16 and in FY 2016-17 it rose to 10.1%.

The Similar trend was observed in GAIL, 9.51% ROE in FY 2014-15, 6.49% in FY 2015-16 and 9.02% in FY 2016-17. Increasing trend was observed in IOCL, 7.18% ROE was in FY 2014-15, 15.49% in FY 2015-16, 22.89% in FY 2016-17. BHEL’s ROE fell in FY 2015-16 and become negative (i.e. -2.66%) from 4.31% of FY 2014-15, it rose to 1.4% in FY 2016-17.

**Net profit Margin (NPM)**

The net profit percentage is the ratio of after-tax profits to net sales. It reveals the remaining profit after all costs of production, administration, and financing have been deducted from sales, and income taxes recognized. Higher Net profit margin is always favorable.

Net Profit Margin = (Net profit ÷ Net sales) x 100
CIL reported highest NPM in FY 2014-15 and FY 2015-16, 18.52% in FY 2014-15 and 18.3% in FY 2016-17, whereas ONGC had highest NPM for FY 2016-17 (i.e. 14.42%). In FY 2015-16 SAIL had minimum NPM i.e. -10.87% and in FY 2016-17 also SAIL had minimum NPM among all Maharatna Companies i.e. -6.19%.

<table>
<thead>
<tr>
<th>Table iii</th>
<th>Net Profit Margin</th>
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<tbody>
<tr>
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<td>2014-15</td>
</tr>
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<td>18.52</td>
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<td>11.4</td>
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<tr>
<td>GAIL</td>
<td>5.21</td>
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<tr>
<td>IOC</td>
<td>1.09</td>
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<td>BHEL</td>
<td>4.72</td>
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</table>

There was a slight increase in NPM of NTPC from the FY 2014-15 to FY 2015-16 (12.39% to 12.94%) and from the FY 2015-16 to FY2016-17 (12.94% to 13.06%). CIL’s NPM fell to 11.85% in FY 2016-17 from 18.3% in FY 2015-16. ONGC had 11.4% NPM in FY 2014-15, 10.74% in FY 2015-16 and 14.42% in FY 2016-17. In case of GAIL, NPM was observed 5.21% in FY 2014-15, 4.1% in FY 2015-16 and 6.83% in FY 2016-17. NPM of IOC showed increasing trend, calculated as 1.09% in FY 2014-15, 3.15% in FY 2015-16 and 5.74% in FY 2016-17.

**Return on capital employed (ROCE)**

Return on capital employed is a measure of the returns that a business is achieving from the capital employed, usually expressed in percentage terms. Capital employed equals a company's Equity plus Non-current liabilities in other words all the long-term funds used by the company. ROCE indicates the efficiency and profitability of a company's capital investments. ROCE should always be higher than the rate at which the company borrows otherwise any increase in borrowing will reduce shareholders' earnings, and vice versa; a good ROCE is one that is greater than the rate at which the company borrows.

\[
\text{ROCE} = \frac{\text{EBIT}}{\text{Capital Employed}}
\]

**Figure iv Return on Capital Employed(%)**
For the all three years CIL outperformed the other Maharatna Companies. In FY 2014-15 CIL had 32.96% ROCE, in FY 2015-16 it had 37.68% ROCE and in FY 2016-17 it had 30.44% ROCE. In FY 2014-15 minimum ROCE was observed in BHEL i.e. 4.1%, SAIL had minimum ROCE in the next two years, -3.96% in FY 2015-16 and -1.33% in FY 2016-17. NTPC had 9.98% ROCE for FY 2014-15, 10.09% for FY 2015-16 and 6.8% for FY 2016-17.

<table>
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<th>Company</th>
<th>2014-15</th>
<th>2015-16</th>
<th>2016-17</th>
</tr>
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<tbody>
<tr>
<td>NTPC</td>
<td>9.98</td>
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<td>SAIL</td>
<td>4.95</td>
<td>-3.96</td>
<td>-1.33</td>
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<td>CIL</td>
<td>32.96</td>
<td>37.68</td>
<td>30.44</td>
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<td>ONGC</td>
<td>8.39</td>
<td>6.35</td>
<td>8.75</td>
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<td>GAIL</td>
<td>7.2</td>
<td>6.22</td>
<td>7.98</td>
</tr>
<tr>
<td>IOC</td>
<td>4.91</td>
<td>10.43</td>
<td>16.05</td>
</tr>
<tr>
<td>BHEL</td>
<td>4.1</td>
<td>-2.45</td>
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ONGC’s ROCE was declined from 8.39% in FY 2014-15 to 6.35% in FY 2015-16, then it rose to 8.75% in FY 2016-17. A similar trend was observed for GAIL with 7.2% in FY 2014-15, 6.22% in FY 2015-16 and 7.98% in FY 2016-17. IOC had increasing trend for ROCE with 4.91% in FY 2014-15, 10.43% in FY 2015-16 and 16.05% in FY 2016-17. BHEL’s ROCE became negative in FY 2015-16 i.e. -2.45% from 4.1% in FY 2015-16, it rose to 1.2% in FY 2016-17.

Earnings per share (EPS)

Earnings per share (EPS) ratio measures how much net income has been earned by each share of common stock. It is computed by dividing net income less preferred dividend by the number of shares of common stock outstanding during the period. It is a popular measure of overall profitability of the company and is usually expressed in monetary unit. The numerator is the net income available for common stockholders’ (net income less preferred dividend) and the denominator is the average number of shares of common stock outstanding during the year. It does not include preferred shares.

\[
EPS = \frac{(\text{Net Income} - \text{Preferred Dividend})}{\text{Weighted average number of shares outstanding}}
\]

![Figure v Earnings per Share (in Rupees)](image-url)
Highest EPS was observed for IOC in FY 216-17 (i.e. 41.88) and in FY 2015-16 (i.e. 25.37). NTPC had 12.11 EPS for FY 2014-15, 13.1 for FY 2015-16, 13 for FY 2016-17. SAIL’s EPS became negative after FY 2014-15, -10.11 in FY 2015-16 and -6.67 in FY 2016-17. EPS of CIL for FY 2014-15 was 21.73, 22.59 in FY 2015-16 and 14.93 in FY 2016-17. ONGC and GAIL had similar trend. EPS of ONGC in FY 2014-15 was 14.29, 10.03 in FY 2015-16 and 15.97 in FY 2016-17. GAIL had EPS of 18.68 in FY 2014-15, 11.05 in FY 2015-16 and 19.91 in FY 2016-17. IOC was on increasing trend with EPS of 10.12 in FY 2014-15, 25.37 in FY 2015-16 and 41.88 in FY 2016-17. BHEL’s maximum EPS was in FY 2014-15 i.e. 5.93, it dropped to -3.66 in FY 2015-16 and then rose to 2.02 in FY 2016-17.

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<th>2014-15</th>
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<th>2016-17</th>
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<tbody>
<tr>
<td>NTPC</td>
<td>12.11</td>
<td>13.1</td>
<td>13</td>
</tr>
<tr>
<td>SAIL</td>
<td>4.93</td>
<td>-10.11</td>
<td>-6.67</td>
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<tr>
<td>CIL</td>
<td>21.73</td>
<td>22.59</td>
<td>14.93</td>
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<td>ONGC</td>
<td>14.29</td>
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<td>BHEL</td>
<td>5.93</td>
<td>-3.66</td>
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Conclusion
The major objective of this paper was to assess the performance of the Maharatna companies to make the comparison among them. In order to achieve this objective, this study analyzed the financial data of the seven Maharatna companies for a period of three years, from FY 2014-15 to FY 2016-17. Using this financial data, five commonly used performance measures, Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin, Return on Capital Employed (ROCE) and Earning per Share (EPS) were analyzed. This study revealed that Coal India Limited is the best-performed company among all the Maharatna companies on the basis of ROA, in the three financial years. Coal India Limited also outperformed other Maharatna companies on the basis of ROE, in the three financial years. Highest Net Profit Margin (NPM) is observed for Coal India Limited in FY 2014-15 and FY 2015-16, whereas in FY 2016-17, Oil and Natural Gas Corporation outperformed the other companies. Coal India Limited has the highest ROCE in the three financial years. Coal India Limited has the best EPS in FY 2014-15, but in FY 2015-16 and FY 2016-17 highest EPS is observed in Indian Oil Corporation. Indian Oil Corporation is the only Maharatna company which reported the increasing trend in all the five performance ratios. There is a significant change in the performance of Maharatna companies was observed between the years, except for National Thermal Power Corporation Limited, which reported constant profitability among the three years. Steel Authority of India and Bharat Heavy Electricals Limited are two Maharatna Companies which reported the financial loss.

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