



**PROFITABILITY ANALYSIS OF SELECTED INDIAN MINIRATNA
CATEGORY-II PUBLIC SECTOR ENTERPRISES: EVIDENCE FROM FIVE
YEAR ANALYSIS**

Bhargav A. Kuriya¹, Dr. Nitin Kumar R. Suba²

¹Research Scholar, Department of Commerce, Bhakta Kavi Narsinh Mehta University,
Junagadh-362263, Gujarat, India.

²Professor, Smt. C. P. Choksi Arts and Shree P. L. Choksi Commerce College, Veraval-362265

ABSTRACT

The research aims to examine and differentiate the profitability position of selected Miniratna Category-II over the time duration of five years using financial pointers. Public sector enterprises play a highly significant role in the economic growth of India by contributing to industrial upgradation, employment generation, and infrastructure development. Within this frame of reference, profitability caters as significant pointer of operational effectiveness, financial feasibility, and managerial effectiveness. This research is based on secondary data which is collected from the annual reports of selected public sector enterprises. Multiple profitability ratios namely Gross-Profit Ratio, Net-Profit Ratio, Return on Assets, Return on Capital Employed, and Return on Equity have been applied to measure financial performance.

The findings of the research show variations in profitability among the selected enterprises, indicating differences in operational effectiveness. While some enterprises observed growth and stable financial performance, some experienced fluctuations due to changes in market conditions, operating expenses, and revenue generation strength.

Keywords: *Profitability Ratios; Miniratna Category-II; Public Sector Enterprises (PSEs); Financial performance.*

1. INTRODUCTION

Public sector undertakings (PSUs) in India are categorised into Maharatna, Navratna, and Miniratna categories to provide greater financial and managerial autonomy based on their performance and size. Maharatna PSUs are large, globally competitive enterprises with the highest level of operational freedom. Navratna PSUs are financially strong companies granted enhanced decision-making powers to improve efficiency and



competitiveness. Miniratna PSUs, divided into Category-I and Category-II, are smaller but profit-making enterprises with limited autonomy. This classification aims to improve efficiency, accountability, and competitiveness of Indian PSUs. Profit maximization is a primary aim of every business firm, irrespective of its size, nature, ownership, or sector. Profit indicates the efficiency with which a business firm utilizes its available resources to generate revenue. Higher profitability indicates healthy operational performance and attracts investment from investors. Profitable business firms contribute significantly to economic growth through employment generation, tax payments, and value addition. Optimum utilization of resources enables business firms to maintain and expand their activities in the long run. Since business firms operate using scarce resources, profitability analysis helps in determining efficient firms for optimum resource allocation. Public Sector Enterprises, being funded by public money, take greater responsibility to perform efficiently. Therefore, analysing profitability is crucial to evaluate organizational efficiency and promote overall economic development.

2. LITERATURE REVIEW

Madhusudana (2024), analyzed the profitability of Maharatna companies, focusing on multiple ratios. To analyse profitability of the companies researcher has used Operating-Ratio, Gross-Profit Ratio, Net-Profit Ratio, and Cash Profit Ratio. Researcher also studied trends in Net Sales, Trend in Total Expenses, and PBDIT, PBIT, PBDT. Researcher has collected secondary data from annual reports to conduct this study. Researcher concluded that there is difference in Net Sales, Total Expense and Profitability ratios.

Joddha & Parmar (2022), analyzed the profitability of selected Maharatna and Miniratna PSEs in India, aiming primarily on the Return on Assets ratio. To conduct this study researchers has used secondary data from annual reports for the period 2010-11 to 2019-20 and applied statistic tools like mean, standard deviation, and ANOVA. The result disclosed variation in Return on Assets for Power Grid Corporation of India Limited and an increasing trend for Hindustan Aeronautical Limited. However, the ANOVA not showed significant difference in profitability between this two enterprises.

R & Dr.K (2021), analyzed profitability of network clothing private limited from march 2016 to march 2020. Tools such as trend analysis, ratio analysis, and comparative financial statement analysis were used in this study by researchers. To determine the profitability researchers has calculated Gross-Profit ratio, Net-Profit ratio, Return on Investment, Return on Assets, Return on Equity, and Equity Share Capital ratio.

Chellasamy & Selvakumar (2019), performed comparative analysis on the profitability of selected steel companies which listed on Bombay Stock Exchange. Researcher used profitability ratios such as Net-Profit Ratio, Operating-Profit Ratio, Return on Capital-Employed, and Return on Assets for the ten-year period. Trend analysis and descriptive statistics were also used to analyse performance. The results showed fluctuating profitability trends across companies due to market volatility, and variations in operational efficiency. The



researcher concluded that long-term profitability depends on optimum utilization of resources and strategic financial planning.

R & D (2018), analysed the profitability of selected Indian two-wheeler manufacturing companies using ratio analysis. The study focused on secondary data collected from annual reports. Researcher used profitability ratios such as Net-Profit Ratio, Gross-Profit Ratio, Return on Net Worth, and Return on Capital-Employed for analysis. The findings disclosed significant differences in profitability among the selected companies, showing differences in cost control, operational efficiency, and capital utilization. The study highlighted that effective financial management practices play a vital role in maintaining profitability in manufacturing enterprises.

Movalia (2015), executed an empirical study on the capital structure and profitability of the India's tyre manufacturing industry, covering those fourteen tyre companies which are listed on Bombay Stock Exchange and National Stock Exchange for the period of six years (2009–10 to 2013–14). The researcher applied Debt–Equity Ratio as the key measure of capital structure and profitability indicators namely Net-Profit Ratio, Return on Net Worth, and Return on Capital-Employed. Also using regression analysis and Durbin–Watson statistics, researcher found a significant relationship between capital structure and profitability. Companies like Madras Rubber Factory, Dunlop India, Apollo Tyres, and Modi Rubber exhibited optimal capital structures, leading to superior profitability.

Barman & Sengupta (2014), investigated business and financial risk in selected Maharatna, Navratna, and Miniratna Central Public Sector Enterprises (CPSEs) in India. Their study stressed that effective identification and management of unsystematic risks are essential to reduce failures and financial losses in a dynamic economic environment. The findings highlight the significance of risk analysis in strengthening financial performance of large PSUs.

3. RESEARCH METHODOLOGY

3.1 Objective of the Study:

To compare the profitability among the selected Miniratna category – II companies.

3.2 Hypotheses:

H_{01} = The difference in Gross-Profit of selected Miniratna category – II is statistically insignificant.

H_{02} = The difference in Net-Profit of selected Miniratna category – II is statistically insignificant.

H_{03} = The difference in Return on Capital-Employed of selected Miniratna category – II is statistically insignificant.

H_{04} = The difference in Return on Equity of selected Miniratna category – II is statistically insignificant.

3.3 Sample:

From the population a sample of four Miniratna categories – II selected for the study. For selection of sample convenient sampling method is used.



3.4 Period of the Study:

The present research work covers the time period of five years starting from 2020 to 2025.

3.5 Tools and Techniques:

For the testing of hypotheses researcher has used ANOVA.

3.6 Data Collection:

The data collected is purely secondary in nature. The data has been collected from the annual reports published by the selected companies.

4. RESEARCH GAP

Despite vast research on profitability of Maharatna and Navratna PSUs, the profitability performance of Miniratna Category-II Public Sector Enterprises remains unexplored in existing literature.

5. DATA ANALYSIS

5.1 Gross-Profit Ratio

Year	ALIMCO	BECIL	FCI Aravali	NFDC
2020-21	45.2	2.09	39.55	2.52
2021-22	43.72	3.66	28.7	-8.41
2022-23	40.06	3.7	27.44	1.95
2023-24	39.63	3.82	45.68	5.27
2024-25	45.01	3.88	13.1	1.56

Analysis:

The Gross-Profit Ratio is shown in the above table of selected Miniratna Category – II Public Sector Enterprises (PSEs) from 2020-21 to 2024-25.

In 2020-21 ALIMCO maintained strong and stable performance compared to others. Although the ratio declined from 45.2% to 39.63% in year 2023-24, and it recovered well to 45.01% in year 2024-25. NFDC recorded the most inconsistent performance among the selected enterprises, its ratio turned negative in 2021-22 (-8.41%) revealing that cost exceeded revenue during that year. Even BECIL showed low but improving performance. And, performance of FCI Aravali is decreased from 45.68% in 2023-24 to 13.1% in 2024-25.

ANOVA:- Single-Factor

Summary:

Groups	Count	Sum	Average	Variance
ALIMCO	5	213.62	42.724	7.25453
BECIL	5	17.15	3.43	0.569
FCI Aravali	5	154.47	30.894	156.7306
NFDC	5	2.89	0.578	27.35427



ANOVA Table

ANOVA						
Source of Variation	SS	Df	MS	F	P value	F-crit
Between-Groups	6427.147	3	2142.382	44.65427	5.33E-08	3.238872
Within-Groups	767.6335	16	47.9771			
Total	7194.781	19				

(At 0.05% level of significance)

The above table of ANOVA testifies that the calculated value is 44.6542 and critical value is 3.2388 at the 5% level of significance. The calculated value (F) is greater than critical value so that alternate hypothesis is accepted. Hence, we can deduce that there is a significance difference in Gross-Profit Ratio of selected Miniratna Category – II Public Sector Enterprises.

5.2 Net Profit Ratio

Year	ALIMCO	BECIL	FCI Aravali	NFDC
2020-21	0.21	0.46	35.85	1.22
2021-22	0.2	2.37	27.98	-9.79
2022-23	0.16	0.75	17.38	4.34
2023-24	0.12	1.55	36.67	3.79
2024-25	0.15	0.47	37.48	1.43

Analysis:

The Net-Profit Ratio is shown in the above table of selected Miniratna Category – II Public Sector Enterprises (PSEs) from 2020-21 to 2024-25.

ALIMCO registered consistently low Net-Profit Ratio throughout the study period. The Net-Profit ratio declined from 0.21% in 2020-21 to 0.12% in 2023-24. This trend indicates that although ALIMCO keeps operational efficiency at the gross level, higher administrative, financial, or statutory expenses significantly squeeze its net profitability. FCI Aravali comes out as strongest performer in Net-Profit Ratio among the selected enterprises. Again just like Gross-Profit Ratio NFDC recorded the inconsistent performance among the selected enterprises, its ratio turned negative in 2021-22 (-9.79%) reflecting loss during the year. BECIL showed fluctuating Net Profit Ratio.

ANOVA:- Single Factor

Summary:

Groups	Count	Sum	Average	Variance
ALIMCO	5	0.84	0.168	0.00137
BECIL	5	5.6	1.12	0.6856
FCI Aravali	5	155.36	31.072	73.06517
NFDC	5	0.99	0.198	33.09527



ANOVA Table

Source of Variation	SS	df	MS	F	P value	F-crit
Between-Groups	3508.926	3	1169.642	43.78738	6.12878E-08	3.238872
Within-Groups	427.3896	16	26.71185			
Total	3936.315	19				

(At 0.05% level of significance)

The above table of ANOVA testifies that the calculated value is 43.7873 and critical value is 3.2388 at the 5% level of significance. The calculated value (F) is greater than critical value so that alternate hypothesis is accepted. Hence, we can deduce that there is a significance difference in Net-Profit Ratio of selected Miniratna Category – II Public Sector Enterprises.

5.3 Return on Capital-Employed

Year	ALIMCO	BECIL	FCI Aravali	NFDC
2020-21	0.1	99.43	7.24	2.29
2021-22	0.11	21.95	6.21	-30.98
2022-23	0.11	25.06	5.43	6.92
2023-24	0.1	60.02	5.99	45.19
2024-25	0.13	33.76	5.16	14.68

Analysis:

The Return on Capital-Employed is shown in the above table of selected Miniratna Category – II Public Sector Enterprises (PSEs) from 2020-21 to 2024-25. It calculates the efficiency with which a company uses its long-term capital to generate profit.

ALIMCO recorded low Return on Capital Employed throughout the study period, ranging between 0.10% to 0.13%, but also indicated improvement in 2024-25 (0.13%). BECIL showed high but greatly fluctuating Return on Capital Employed. Such fluctuation indicates inconsistent operating profit, changes in capital base, or short term contract dependence. FCI Aravali indicated stable but declining trend in Return on Capital Employed. NFDC recorded the most inconsistent performance among the selected enterprises, the ratio turned negative in 2021-22 (-30.98%), however recovered in later year. This fluctuation reveals high sensitivity in project based income.

ANOVA:- Single Factor

Summary:

Groups	Count	Sum	Average	Variance
ALIMCO	5	0.55	0.11	0.00015
BECIL	5	240.22	48.044	1049.285
FCI Aravali	5	30.03	6.006	0.65303
NFDC	5	38.1	7.62	745.0519



ANOVA Table

Source of Variation	SS	Df	MS	F	P value	F-crit
Between-Groups	7240.912	3	2413.637	5.378609	0.009403	3.238872
Within-Groups	7179.959	16	448.7475			
Total	14420.87	19				

(At 0.05% level of significance)

The above table of ANOVA testifies that the calculated value is 5.3786 and critical value is 3.2388 at the 5% level of significance. The calculated value (F) is greater than critical value so that alternate hypothesis is accepted. Hence, we can deduce that there is a significance difference in Return on Capital Employed of selected Miniratna Category – II Public Sector Enterprises.

5.4 Return on Equity

Year	ALIMCO	BECIL	FCI Aravali	NFDC
2020-21	0.12	252.04	5.37	2.27
2021-22	0.13	59.89	4.61	-26.82
2022-23	0.13	19.17	3.91	20.66
2023-24	0.11	40.94	4.43	31.71
2024-25	0.15	11.17	3.84	12.42

Analysis:

The Return on Equity is shown in the above table of selected Miniratna Category – II Public Sector Enterprises (PSEs) from 2020-21 to 2024-25. It calculates the productivity with which shareholder’s fund are utilized to generate profit.

ALIMCO recorded low Return on Equity during the entire study period, ranging between 0.11% to 0.15%, but also indicated improvement in 2024-25 (0.15%). BECIL showed high but greatly fluctuating Return on Equity. Such fluctuation indicates inconsistency in shareholder return. FCI Aravali indicated stable but declining trend in Return on Equity during the study period, but also indicates stable financial performance. Again NFDC recorded the most inconsistent performance among the selected enterprises, the ratio turned negative in 2021-22 (-26.82%), however recovered in later year. This fluctuation reflects sensitivity in profitability fluctuation and project based income.

ANOVA:- Single Factor

Summary:

Groups	Count	Sum	Average	Variance
ALIMCO	5	0.64	0.128	0.00022
BECIL	5	383.21	76.642	9977.334
FCI Aravali	5	22.16	4.432	0.38362
NFDC	5	40.24	8.048	496.8075



ANOVA Table

Source of Variation	SS	df	MS	F	P value	F-crit
Between-Groups	19835.17	3	6611.725	2.524878	0.094352	3.238872
Within-Groups	41898.1	16	2618.631			
Total	61733.27	19				

(At 0.05% level of significance)

The above table of ANOVA testifies that the calculated value is 2.5248 and critical value is 3.2388 at the 5% level of significance. The calculated value (F) is less than critical value so that alternate hypothesis is rejected. Hence, we can deduce that there is no significance difference in Return on Equity of selected Miniratna Category – II Public Sector Enterprises.

6. FINDINGS

The results indicate that there is significant difference in Gross-Profit Ratio among the selected Miniratna Category-II Public Sector Enterprises. This indicates differences in operational efficiency and cost management practices across enterprises.

The results indicate that there is significant difference for Net-Profit Ratio among the Miniratna Category-II Public Sector Enterprises, suggesting variations in profitability after accounting for operating and non-operating expenses.

The analysis of Return on Capital-Employed reveals significant difference among the enterprises. This indicates differences in the capability with which capital is utilized to generate operating profits.

In contrast, it indicates no significant difference among the selected Miniratna Category-II Public Sector Enterprises for Return on Equity (ROE), showing a proportionately uniform return generated for shareholders' funds across companies.

The overall findings across profitability indicators suggest that while operational and capital efficiency vary among Miniratna Category-II enterprises, but shareholder returns remain broadly consistent.

7. LIMITATIONS OF THE STUDY

- The present study focused only on Miniratna category – II Public Sector Enterprises.
- The research study is restricted to the time duration of five years.

8. CONCLUSION

The study concludes that the performance of Miniratna Category-II Public Sector Enterprises differs significantly in terms of Gross-Profit Ratio, Net-Profit Ratio, and Return on Capital-Employed, indicating



differences in operational efficiency and capital utilization. However, no significant difference is witnessed in Return on Equity, proposing uniformity in shareholder returns across enterprises. Operational and capital efficiency varies among firms, equity returns remain proportionately consistent, indicating the impact of similar ownership and financial policies within Miniratna Category-II Public Sector Enterprises.

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