

A STUDY ON FINANCIAL PERFORMANCE USING FINANCIAL RATIOS OF SELECTED BSE NSE LISTED ENGINEERING SMALL AND MEDIUM ENTERPRISES (SMEs) OF INDIA**Kumarjay Shakya**

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Abstract - India's economy is expanding quickly and the country is becoming a global leader. Even while big enterprises account for a major proportion of GDP, micro, small, and medium-sized enterprises also have continued to make a substantial contribution over the years. The micro, small, and medium enterprises are the backbone of the Indian economy, employing over 11 crore people and accounting for approximately 49.87% of all exports in the country. About 633.88 lakh MSMEs contribute to 28.77% to India's GDP. The study aims the financial performance of small and medium-enterprises in India with special reference to Maharashtra region. The population frame of BSE and NSE listed SMEs in India is projected to be more than 22,000, based on the Prowess IQ database as of 15.8.2023, from which a sample of 10 engineering companies are selected based on market capital for the present study. To understand the liquidity and profitability performance, eight different financial ratios were employed. Appropriate statistical tests such as mean, standard deviation and ANOVA were used on the secondary data collected from the Prowess IQ database for the financial year 2013-14 upto year 2022-23. The majority of medium enterprises did better in terms of profitability performance (return on assets, return on equity, return on capital employed, net profit margin and gross profit margin). The performance of small businesses was high in profitability (price-earnings ratio and yield ratio) and liquidity (current ratio). Overall performance of Medium enterprises was better than compared to small enterprises.

Keywords: Small and Medium Enterprises, Financial Performance, Financial Ratios, Maharashtra.

1 INTRODUCTION

Micro, Small, and Medium-Sized Enterprises (MSMEs) plays a vital role in the Indian economy, it acts as a catalyst for economic growth, job creation, and innovation. These businesses work in different industries like technology, agriculture, manufacturing as well as service industry. These SMEs supply raw materials to major companies but have fewer labour and resources than larger enterprises. MSMEs are the backbone of the Indian economy, providing 31.83% of GDP and jobs for 1109.89 lakh people (Research & Information Division, 2019). Given its critical role in the economy, it is imperative to comprehend the financial performance of this industry. While there are several methods for analyzing the financial performance of different businesses, financial ratio analysis is the most popular and extensively applied method. Financial ratios help in decision-making and provide insight into the financial performance from a variety of perspectives (Tamplin, 2023). This study uses fourteen distinct financial ratios to analyze the financial performance of selected public listed small, and medium-sized enterprises in Maharashtra.

2 LITERATURE REVIEW

The study "Financial Performance Analysis of MSME" by **Kharat et al. (2022)** examines the major obstacles and data analysis facing MSME in India prior to, during, and after the COVID-19 pandemic. This research is exploratory in nature, using observation to generate concepts and ideas for future theoretical development. The study makes use of secondary data that was gathered online from news stories, essays, and MSME annual reports. a mix of qualitative and quantitative metrics applied to the subject's theme analysis. It was determined that India's absence of SME databases prevents more R&D in the industry. The MSME sector, which is the foundation of the Indian economy, requires the most recent technological advancements in accounting and finance.

Yumna et al. (2020) on the subject of "The Determinants of Micro, Small, and Medium Enterprises (MSMEs) Financial Performance: A Literature Review." Highlights

literature review on the factors that influence financial performance. The systematic literature review (SLM) method was applied in the investigation. It was clarified that one of the most crucial aspects of MSMEs is their financial performance. Because financial risk in this industry is considerable, financial risk management in this industry requires careful consideration.

In the research article by **Setiana et al. (2020)** in the research article "Factors Affecting the Financial Performance of Micro, Small and Medium Enterprises (MSMEs) During the COVID19 Pandemic in Yogyakarta City" highlighted the elements affecting businesses' financial performance during the COVID19 pandemic. Data from secondary sources was gathered using a structured questionnaire. Indonesia's Yogyakarta City is included in the study region. The three main variables that were shown to be related to financial performance were tax relief, credit extended, and the caliber of the financial report. Using a regression model, the study demonstrated how three independent variables had an impact of 38% on the dependent variable, which is the financial performance of MSMEs during COVID19. Additionally, during COVID19, the credit facility had a notable effect on the financial performance of the chosen MSMEs.

Gade (2020) in the research article "MSMEs Role in Economic Growth - a Study on India's Perspective." highlighted the contribution of MSMEs to the expansion of the Indian economy. This study was exploratory in nature and used secondary data from the 2014–15 MSME Annual Reports. According to the report, MSMEs in India have expanded steadily over time. Despite the fact that there is a significant need for technological advancement and financing availability, it makes up a significant portion of India's GDP and exports.

3 RESEARCH METHODOLOGY

- **Population Size:** The population for the study includes all the listed SMEs in India, which is estimated as 395 listed companies according to the data collected from BSE SME portal in India.
- **Sample Size:** 10 companies are selected based on market capital from BSE and NSE listed Engineering Small and Medium Enterprises of India.
- **Period of Study:** The study covers the period for 10 years starting from year 2013-14 upto year 2022-23.
- **Objective:** To study the profitability performance and liquidity performance of the selected companies.

- **Hypothesis:**

H₀: There is no significant difference between the profitability ratios of the selected companies.

H₁: There is significant difference between the profitability ratios of the selected companies.

H₀: There is no significant difference between the liquidity ratios of the selected companies.

H₁: There is significant difference between the liquidity ratios of the selected companies.

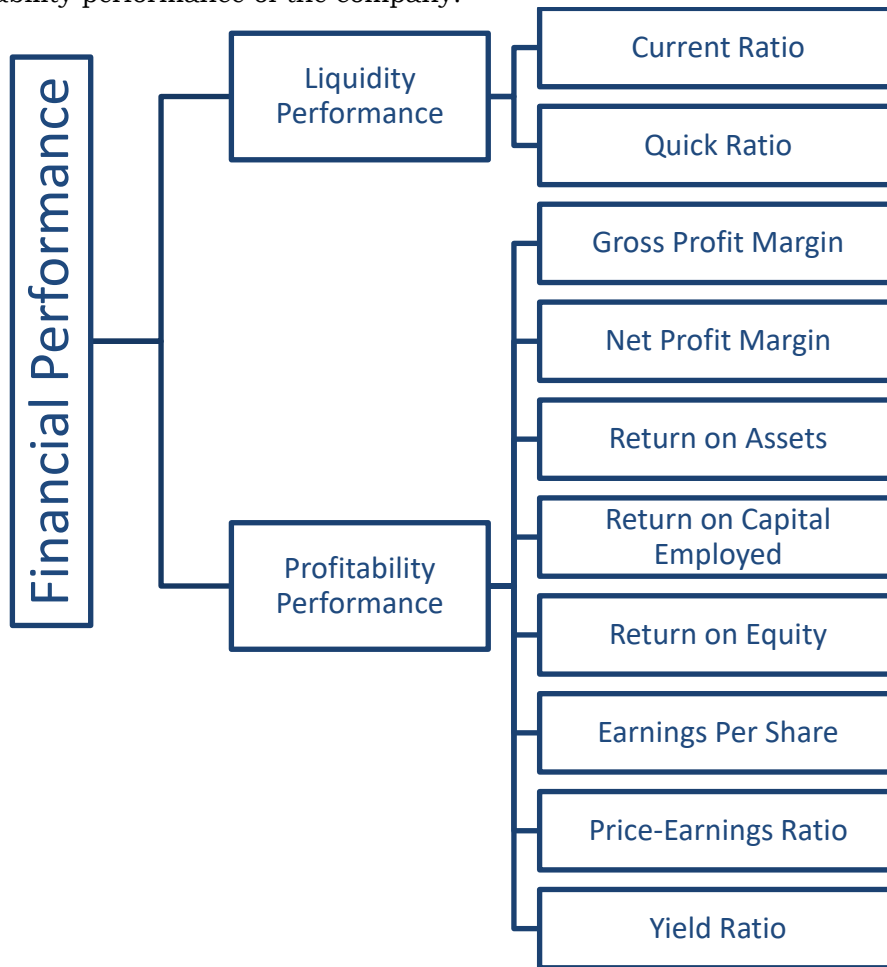
4 DATA COLLECTION AND ANALYSIS

Data Collection

- For the present study secondary data is used collected for BSE NSE listed 10 companies related to engineering in Small and Medium Enterprises in India, total 10 different financial ratios were collected from Prowess IQ Database starting from the year 2013-14 upto year 2022-23. The sample companies selected in this study mentioned below:

RANK	NAME	SMEs	MARKET CAP. (in crore rupees)	STATE
1	Servotech Power Systems Ltd.	Medium	1737.4	NCT of Delhi
2	Emkay Taps & Cutting Tools Ltd.	Medium	763	Maharashtra
3	Macpower C N C Machines Ltd.	Medium	759.42	Gujarat
4	Taylormade Renewables Ltd.	Small	739.34	Gujarat
5	R M C Switchgears Ltd.	Medium	564.38	Rajasthan
6	Affordable Robotic & Automation Ltd.	Medium	499.21	Maharashtra
7	Felix Industries Ltd.	Small	440.42	Gujarat
8	Sprayking Agro Equipment Ltd.	Small	216.54	Gujarat
9	Pulz Electronics Ltd.	Small	167.49	West Bengal
10	Aartech Solonics Ltd.	Small	148.95	Madhya Pradesh

To study the financial performance, financial ratios are selected as the population is infinite hence financial ratios remain a suitable tool to understand the financial performance of the selected companies. Total 10 financial ratios are selected which explain the liquidity and profitability performance of the company.



LIQUIDITY RATIOS

1. CURRENT RATIO

H₀: There is no significant difference between the current ratios of the selected companies.

H₁: There is significant difference between the current ratios of the selected companies.

ANOVA

CURRENT RATIO

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.853	1	8.853	7.884	.023
Within Groups	8.983	8	1.123		
Total	17.836	9			

Since the p-value (Significance) is 0.023, which is less than the typical significance level of 0.05, you would reject the null hypothesis. This suggests that there are statistically significant differences in the current ratio between small and medium enterprises.

ANOVA - CURRENT RATIO

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
SMALL	5	3.5192	1.39377	.62331	1.7886	5.2498	2.21	5.56
MEDIUM	5	1.6374	.55062	.24624	.9537	2.3211	1.23	2.59
Total	10	2.5783	1.40775	.44517	1.5712	3.5853	1.23	5.56

The descriptive statistics shows that the mean current ratio of small enterprises is almost three times the mean current ratio of medium enterprises indicating that the small enterprises have a higher current asset to meet its current liabilities compared to medium enterprises.

2. QUICK RATIO

H₀: There is no significant difference between the quick ratios of the selected companies.

H₁: There is significant difference between the quick ratios of the selected companies.

ANOVA

QUICK RATIO

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.159	1	4.159	4.179	.075
Within Groups	7.963	8	.995		
Total	12.122	9			

The p-value (level of significance) is 0.075, which is above the significance level of 0.05. This suggests that we accept the null hypothesis at the significance level of 0.05. This indicates that there is some evidence suggesting differences in the quick ratio between small and medium enterprises, but it is not strong enough to reach significant levels.

PROFITABILITY RATIOS

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
GROSS PROFIT MARGIN	Between Groups	331.689	1	331.689	2.218	.175
	Within Groups	1196.196	8	149.524		
	Total	1527.885	9			
NET PROFIT MARGIN	Between Groups	455.102	1	455.102	2.095	.186
	Within Groups	1737.559	8	217.195		
	Total	2192.661	9			
RETURN ON ASSETS	Between Groups	22.647	1	22.647	1.087	.328
	Within Groups	166.659	8	20.832		
	Total	189.305	9			
RETURN ON CAPITAL EMPLOYED	Between Groups	43.218	1	43.218	1.200	.305
	Within Groups	288.018	8	36.002		
	Total	331.236	9			
RETURN ON EQUITY	Between Groups	54.672	1	54.672	.711	.424
	Within Groups	614.877	8	76.860		
	Total	669.549	9			
EARNINGS PER SHARE	Between Groups	291.647	1	291.647	1.901	.205
	Within Groups	1227.375	8	153.422		
	Total	1519.023	9			
PRICE-EARNINGS RATIO	Between Groups	457.897	1	457.897	.708	.425
	Within Groups	5173.331	8	646.666		
	Total	5631.228	9			
YIELD RATIO	Between Groups	.015	1	.015	.131	.727
	Within Groups	.907	8	.113		
	Total	.922	9			

1. GROSS PROFIT MARGIN

H₀: There is no significant difference between the gross profit margin of the selected companies.

H₁: There is significant difference between the gross profit margin of the selected companies.

The p-value is 0.175, which is higher than the level of significance 0.05. Hence, we accept the null hypothesis, suggesting that there are no significant differences in the Gross Profit Margin between small and medium enterprises.

2. NET PROFIT MARGIN

H₀: There is no significant difference between the net profit margin of the selected companies.

H₁: There is significant difference between the net profit margin of the selected companies.

The p-value is 0.186, which is higher than the level of significance 0.05. Hence, we accept the null hypothesis, indicating that there are no significant differences in the Net Profit Margin between small and medium enterprises.

3. RETURN ON ASSETS

H₀: There is no significant difference between the ROA of the selected companies.

H₁: There is significant difference between the ROA of the selected companies.

The p-value is 0.424, which is higher than the level of significance 0.05. Hence, we accept the null hypothesis, indicating that there are no significant differences in the Return on Assets between small and medium enterprises.

4. RETURN ON CAPITAL EMPLOYED

H₀: There is no significant difference between the ROCE of the selected companies.

H₁: There is significant difference between the ROCE of the selected companies.

The p-value is 0.305, which is higher than the level of significance 0.05. Hence, we accept the null hypothesis, indicating that there are no significant differences in the Return on Capital Employed between small and medium enterprises.

5. RETURN ON EQUITY

H₀: There is no significant difference between the ROE of the selected companies.

H₁: There is significant difference between the ROE of the selected companies.

The p-value is 0.424, which is higher than the level of significance 0.05. Hence, we accept the null hypothesis, indicating that there are no significant differences in the Return on Equity between small and medium enterprises.

6. EARNINGS PER SHARE

H₀: There is no significant difference between the EPS of the selected companies.

H₁: There is significant difference between the EPS of the selected companies.

The p-value is 0.205, which is higher than the level of significance 0.05. Hence, we accept the null hypothesis, indicating that there are no significant differences in the Earnings Per Share between small and medium enterprises.

7. PRICE-EARNINGS RATIO

H₀: There is no significant difference between the Price-Earnings Ratio of the selected companies.

H₁: There is significant difference between the Price-Earnings Ratio of the selected companies.

The p-value is 0.425, which is higher than the level of significance 0.05. Hence, we accept the null hypothesis, indicating that there are no significant differences in the Price Earnings Ratio between small and medium enterprises.

8. YIELD

Ho: There is no significant difference between the Yield Ratio of the selected companies.

H1: There is significant difference between the Yield Ratio of the selected companies. The p-value is 0.727, which is higher than the level of significance 0.05. Hence, we accept the null hypothesis, indicating that there are no significant differences in the Yield Ratio between small and medium enterprises.

MAJOR FINDINGS AND CONCLUSION

Major Findings:

- The small enterprises showed high current ratio compared to medium enterprises, which was two times the ideal standard.
- The quick ratio of small enterprises was high and above the ideal standard, whereas for medium enterprises it was average and below the ideal standard.
- The gross profit margin and net profit margin of medium enterprises was very high compared to small enterprises. Moreover, the net profit margin for small enterprises was very poor and also some enterprises was loss bearer during the period of study.
- The medium enterprises performed better compared to small enterprises in return on assets.
- The medium enterprises also performed better than small enterprises in return on capital employed, but highest ratio was 17.31 which belong to small enterprise.
- The return on equity of small enterprises was low and medium enterprises performed better than small enterprises.
- The earnings per share of medium enterprises was the strongest and was very week for small enterprises. The highest Earnings per share for medium enterprises was 42.56 and the highest for small enterprises was 3.56 per share.
- The small enterprises performed better in price-earnings ratio compared to medium enterprises.
- The yield ratio of small enterprises was high compared to medium enterprises.

CONCLUSION

The present study aims to highlight the financial performance of selected BSE NSE listed engineering Small and Medium Enterprises using financial ratios. The financial performance was studied using liquidity ratios and profitability ratios. The study concluded that small enterprises performed better than medium enterprises in liquidity performance and the current ratio of small enterprises was three times that of medium enterprises. The profitability performance of medium enterprises was high compared to small enterprises based on gross profit ratio, net profit ratio, ROA, ROCE, ROE and EPS. Although small enterprises performed better than medium enterprises in Price-earnings ratio and yield ratio. Based on profitability performance the medium enterprises were better than small enterprises and can be concluded that medium enterprises are more efficient in managing their finance to earn high profits compared to small enterprises.

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