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An Analysis of Profitability and Liquidity Position of SM Marains Advances Gear Boxes India Private Limited, Ozhuginasery, Nagercoil

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Abstract

The profitability and liquidity position of SM Marains Advances Gear Boxes India Private Limited has been analysed for five years (2020-2021 to 2024-2025). This study is focused on analysing the liquidity position of the Company with the help of available ratios like current ratio, quick ratio and cash ratio and also to check the relation between profitability and liquidity. The information is secondary data that has been taken from the company's financial statements, which consist of Profit and Loss accounts and Balance sheet. Analytical tools used are liquidity ratio analysis, profitability ratio analysis (net profit ratio and return on capital employed) and Karl Pearson's correlation coefficient, which measures the relationship between the variables. The results suggest that the company has a good liquidity position with slight variations and the profitability level has been improving over the years. The study finds it crucial that the company should maintain the balance between liquidity and profitability to increase the financial stability and long-term development of the company.

Keywords: Cash Ratio, Correlation Analysis, Liquidity, Net Profit Ratio, Profitability, ROCE.

Introduction

Profitability and liquidity analysis is an important part of financial performance analysis as it gives idea about the earning ability of a company and the short term payment ability. Profitability shows how effectively a business uses its resources to make money; liquidity is the ability of the business to have enough cash or liquid assets to run its business. To ensure financial stability, operational efficiency and long-term sustainability of an organisation, a balance between profitability and liquidity is required.

SM Marains Advances Gear Boxes India Private Limited, a leading marine engineering firm in Tamil Nadu, is engaged in marine gearbox and engine manufacturing and distribution. It is a company

which caters to the marine and fishing industry, with its good quality products and services, it has a strong presence in the coastal areas of India.

This study seeks to analyze the liquidity position of the company by analyzing key financial ratios namely the current ratio, quick ratio and cash ratio and also to check the relationship of profitability and liquidity of the company during the period of five years from 2020-2021 to 2024-2025. The analysis is conducted by secondary data taken from financial statements and analytical tools used are ratio analysis and Karl Pearson correlation coefficient. The study gives good insights regarding the financial performance and stability of the company.

Literature Review

Vaghela et al. (2025)¹ refers to liquidity as the capacity to maintain the smooth running of business and profitability as the capacity to generate returns. Secondary data obtained from the annual reports of FMCG companies were analyzed by the ratio analysis and ANOVA. Results indicate a need for a balance in liquidity and profitability for financial stability. This study aims to explore the effect of liquidity on profitability of selected IT firms of India from secondary data of the top five companies in the last five years and the researcher is Dr. P. Srinivas Reddy (2025). Current Ratio and Quick Ratio measure liquidity, Return on Assets and Return on Equity measure profitability. The SPSS 26.0 is used to perform the analysis. The results indicate that there is no significant relation between profitability of IT companies and their liquidity. This study investigates the aspects of liquidity management and profitability in some selected public sector banks of India during the period (2010-11 to 2023-24). The ratio analysis, regression and ANOVA methods are used to analyze banks like SBI, BOB, PNB, BOI and IDBI etc. The findings reveal differences in performance between banks and that the impact of liquidity is quite noticeable. Based on the findings of the study, it is recommended that bank-specific strategies be developed to enhance bank performance. This research aims to analyze the effect of liquidity and firm size on capital structure with profitability as a mediator in mining companies in Indonesia. A quantitative approach with fixed effect model is used to interpret the data obtained from the panel data of 2019-2023. The findings indicate that liquidity is negatively related to profitability and capital structure and firm size is positively related. Profitability does not mediate the relationship between liquidity and capital structure but it does mediate between firm size and capital structure. In this analysis, the financial performance of Rane Brake Lining Limited is analysed with the help of ratio analysis technique which was done by Mr. S. Dharish et al. (2025)⁵. Secondary data from company's financial statements from the four years are analyzed to evaluate profitability, liquidity, solvency, and efficiency ratios. The outcome indicates continuous improvement of profitability and efficiency in operations. The company also has a high level of liquidity and solvency, which are signs of financial health.

Research Gap

Studies conducted so far on profitability and liquidity, predominantly use the traditional ratio analysis and basic statistical techniques with limited application of advanced technologies like data analytics and artificial intelligence. The majority of research does not consider long-term changes in profitability and liquidity relations. Digital transformation and the use of technology in finance is also under-explored as a means to enhance financial performance. There is a need for further research on modern techniques used in conducting an accurate and comprehensive financial analysis.

Objectives of the Study

- To analyse the liquidity situation of the company by applying ratios (current ratio, quick ratio, cash ratio etc.).
- To evaluate the relationship between profitability and liquidity of the company.

Research Methodology

The study is designed with analytical research design in order to analyze the liquidity and profitability position of SM Marains Advances Gear Boxs India Private Limited. This is a secondary source study based on the data provided by the company in its financial statements for the last five years from 2020-2021 to 2024-2025.

The analysis is carried out using liquidity ratios such as current ratio, quick ratio and cash ratio to assess the company’s short-term financial position. The profitability ratios are those used to assess the earning power of the company. The Karl Pearson’s correlation coefficient is used to analyze the correlation between profitability and liquidity.

Data Analysis

Liquidity Ratio

Liquidity ratios measure the company’s short term liquidity. Shows whether the company has enough current assets to pay current obligations.

Current Ratio

The current ratio reflects the relation between the current assets and current liabilities. It is a measure of the company’s short-term debt paying ability.

Table 1 Current Ratio

Year	Ratio
2020–2021	1.34
2021–2022	1.35
2022–2023	1.35
2023–2024	1.31
2024–2025	1.41

Source: Annual Reports

The current ratio of the company from 2020–2021 to 2024–2025 indicates its ability to meet short-term obligations. The highest ratio was 1.41 in 2024–2025, while the lowest was 1.31 in 2023–2024. The ratio shows slight fluctuations but remains stable over the years. Overall, the company maintains a satisfactory liquidity position with sufficient current assets to meet its short-term liabilities.

Quick Ratio

Quick ratio measures the ability of the company to meet short-term liabilities without depending on inventory.

Table 2 Quick Ratio

Year	Ratio
2020–2021	0.92
2021–2022	0.89
2022–2023	0.77
2023–2024	0.64
2024–2025	0.68

Source: Annual Reports

The quick ratio of the company from 2020–2021 to 2024–2025 reflects its immediate liquidity position. The ratio declined from 0.92 in 2020–2021 to 0.64 in 2023–2024, with a slight improvement to 0.68 in 2024–2025. Overall, the company shows a decreasing but manageable liquidity position, indicating a reduced ability to meet short-term obligations without relying on inventory.

Cash Ratio

Cash Ratio measures the ability of the company to pay current liabilities immediately through cash and cash equivalents.

Table 3 Cash Ratio

Year	Ratio
2020–2021	0.00
2021–2022	0.04
2022–2023	0.04
2023–2024	0.03
2024–2025	0.02

Source: Annual Reports

The cash ratio of the company from 2020–2021 to 2024–2025 shows a declining trend in immediate liquidity. The ratio was highest at 0.04 during 2021–2022 and 2022–2023, indicating better cash availability. It then decreased to 0.02 by 2024–2025, reflecting reduced cash compared to current liabilities. Overall, the company maintains a low cash ratio, indicating limited ability to meet short-term obligations instantly.

Profitability Ratio

Profitability ratios are financial measures used to evaluate a company’s ability to generate earnings in relation to its revenue, costs, and overall operations. A higher profitability ratio reflects better financial performance, while a lower ratio indicates inefficiency in cost control and operations.

Net Profit Ratio

Net Profit Ratio measures the relationship between net profit and net sales. It indicates the overall profitability of the company after all expenses are deducted. A higher ratio reflects better financial performance and effective cost management.

Table 4 Net Profit Ratio

Year	Ratio
2020–2021	-1.04
2021–2022	-0.14
2022–2023	0.79
2023–2024	0.70
2024–2025	0.92

Source: Annual Reports

The net profit ratio shows an improvement from negative values in 2020–2022 to positive growth in later years. The company moved from losses to profits, reaching 0.92% in 2024–2025, indicating improved financial performance, better cost control, and increased operational efficiency.

Return on Capital Employed

ROCE is the ratio of operating profit to capital employed, expressed as a percentage. It measures how efficiently a company uses its long-term funds to generate profit, where a higher ratio indicates better capital utilization.

Table 5: Return on Capital Employed

Year	Ratio
2020-2021	14.79
2021-2022	16.71
2022-2023	21.95
2023-2024	23.13
2024-2025	20.04

Source: Annual Reports

The Return on Capital Employed (ROCE) of the company from 2020–2021 to 2024–2025 shows an overall improving trend in investment efficiency. The ratio increased from 14.79% to a peak of 23.13% in 2023–2024, before slightly declining to 20.04% in 2024–2025. Overall, the company maintains a healthy return, indicating effective utilization of capital and strong financial performance.

Karl Pearson’s Correlation Coefficient

Karl Pearson’s Correlation Coefficient is a statistical method used to measure the relationship between two variables. It is denoted by “r” and its value ranges from -1 to +1. A positive value indicates that both variables move in the same direction, while a negative value indicates that they move in opposite directions.

Table 6 Karl Pearson’s Correlation Coefficient

N	X	Y	XY	X ²	Y ²
2020–21	-1.04	1.34	-1.39	1.08	1.80
2021–22	-0.14	1.35	-0.18	0.02	1.82
2022–23	0.79	1.35	1.07	0.63	1.82
2023–24	0.70	1.31	0.92	0.49	1.72

2024–25	0.92	1.41	1.30	0.85	1.99
Total	1.24	6.76	1.71	3.07	9.14

Source: Annual Report

The Karl Pearson’s correlation coefficient is 0.29 which shows that there is a low positive correlation between Net Profit Ratio and Current Ratio. This indicates that there is a weak positive relationship between the two variables, as both increase in a minor way. Overall, there is no strong correlation between profitability and liquidity of the company.

The Conclusions of the Study are as Follows

- The Net Profit Ratio increased from a low of (-1.04%) in 2020–2021 to a peak of 0.92(%) in 2024–2025. This rise shows improvement in net profit and in the net sales, while the rise in ratio is due to improved profitability position of the company.
- The Return on Capital Employed increased from a low of (14.79%) in 2020–2021 to a peak of (23.13%) in 2023-2024 and slightly declined to (20.04%) in 2024–2025. This trend reflects effective use of the capital employed and improved return on long-term funds.
- The Current Ratio remained stable during the study period, moving from 1.34 in 2020-2021 to 1.41 in 2024-2025, with a slight decline to 1.31 in 2023-2024. This trend suggests the company’s liquidity position is satisfactory and that it is able to pay off its short-term liabilities.
- The Quick Ratio declined over the study period, decreasing from 0.92 in 2020-2021 to 0.68 in 2024-2025, with the lowest level of 0.64 in 2023-2024. This trend is downward and means more reliance on inventory to support short-term obligations.
- The cash ratio shows a declining trend from 0.04 in 2021–2022 and 2022–2023 to 0.02 in 2024–2025. This suggests poor short-term liquidity and limited capacity to pay off short-term obligations through cash and cash equivalents.
- According to Karl Pearson’s correlation coefficient analysis, there is a low positive correlation with profitability with liquidity ($r = 0.29$). This means that in this situation both variables move in the same direction, but in a non-linear fashion.

Conclusions of the Study are Given Below

- It is recommended that more focus should be given to the operating cost control and price efficiency, which will ultimately improve the overall net profit position of the company.
- This could be implemented by efficient investment of funds in productive areas which will help in having better financial performance in the long term.
- A good liquidity position can be kept by keeping the current assets in the right proportion to current liabilities so that short-term debt obligations can be met easily.
- A quick ratio can be improved by removing inventory and strengthening liquid assets and therefore making it more able to pay short term debts.
- It is recommended to increase sales and unnecessary expenses reduced in order to improve financial performance, enhance liquidity and profitability.

Conclusion

The study on “An Analysis of Profitability and Liquidity Position of SM Marains Advances Gear Boxes India Private Limited” reveals that the profitability and liquidity position of the company on an overall basis has improved during the study period. Profitability position has greatly improved and shows increased operational efficiency and better earnings capacity. The liquidity situation is fairly good with a few short-term liquidity items that need strengthening. The Karl Pearson’s correlation

analysis reveals that there is a weak positive correlation between profitability and liquidity, meaning that both are related in the same direction, but not significantly. The company's financial situation is overall moderately stable and has potential for further improvement of profitability and liquidity management.

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