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A Comparative Analysis Of Financial Metrics To Assess Efficiency In The Cement Industry With Reference To Dalmia Cement (Bharat) Limited.

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ABSTRACT: This study analyzes financial data to evaluate how efficient Dalmia Cement (Bharat) Limited is within the cement industry. As the cement sector plays a key role in infrastructure development, assessing its financial condition is important. The study focuses on important metrics such as profitability, liquidity, and asset utilization. Dalmia Cement's financial performance is compared with that of other leading cement companies. This comparison identifies areas for improvement while highlighting the company's strengths. It also demonstrates how effectively the business manages its resources and finances. Industry data and yearly reports are the sources of the information. The results are meant to improve the company's overall performance. They also assist management and investors in making wise choices. Finding methods to boost productivity and maintain market competitiveness is the main objective.

Keywords: **liquidity ratio, profitability ratio, efficiency ratio, solvency ratio, trend analysis, Fundamental analysis**

I.INTRODUCTION

The cement industry plays a vital role in economic growth by supplying key materials for construction and infrastructure. With increasing urbanization, industrial expansion, and government projects, the demand for cement continues to rise. In such a competitive market, financial efficiency is essential for long-term success. This study focuses on Dalmia Cement (Bharat) Limited, a leading Indian company known for innovation and sustainable practices. It compares Dalmia's financial performance with other major cement companies. Key ratios like asset turnover, inventory turnover, operating profit margin, and return on capital employed are analysed over five years. The study uses data from publicly listed companies for accuracy, excluding social and environmental factors. The results aim to help investors, analysts, and management make informed decisions.

II.NEED OF THE STUDY

The cement sector is crucial for economic growth and infrastructure development. To stay competitive, companies must focus on operational efficiency, which can be measured using financial metrics such as asset turnover, return on assets, and operating profit margin. Comparing these metrics reveals the strengths and weaknesses of different companies. This study helps management identify areas for improvement and provides investors with the information needed for informed decisions. Financial efficiency is key to long-term success, influencing decisions related to pricing, investments, and cost management. The insights gained also help policymakers assess the overall health of the industry. Ultimately, the study promotes sustainable growth in the cement sector and encourages better strategic planning.

III.OBJECTIVES OF THE STUDY

To conduct a comparative analysis of financial metrics to assess efficiency in the cement industry with reference to Dalmia Cement (Bharat) Limited.

SECONDARY OBJECTIVES

- To evaluate financial efficiency using key financial metrics
- To analyze performance through comparative analysis
- To apply Dupont analysis to assess profitability drivers
- To study financial trends over a specific period
- To conduct fundamental analysis to determine intrinsic value.

1V. SCOPE OF THE STUDY

This study compares key financial metrics of selected cement companies to evaluate their performance. It looks at ratios like asset turnover, inventory turnover, operating profit margin, and return on capital employed over the past five years. The scope is limited to publicly listed companies to ensure reliable data. The goal is to investigate how well these businesses use their resources to turn a profit. It also considers how cost structures, production capacity, and market strategies impact financial efficiency. The focus is on companies primarily based in India, excluding non-financial factors like environmental issues. The findings will help investors, analysts, and management make informed decisions.

V. LIMITATIONS OF THE STUDY

- The study may rely on secondary data from annual reports, which could be outdated or not fully accurate.
- Different companies may follow different accounting practices, making direct comparison difficult.
- The analysis might not consider external factors like government policies or market demand affecting efficiency.
- It may not reflect short-term changes or recent developments in the industry.
- Non-financial factors like management quality or employee productivity are not considered, which can also affect efficiency.

VI.REVIEW OF LITERATURE

H. Haritha Bai (2025) "A Project Report on Funds Flow Statement at Dalmia Cement Bharat Limited In Chinna Komerla". The main objective of this study is to analyze the financial position of the company. It is the process of identifying the financial strength and weakness of the firm properly establishing relationship between the item of balance sheet and profit and loss account. The details regarding the history and finance details of the company were collecting through discussion with the company officer's, secondary data are based on the annual reports 2020-2024.

Rekha P. Mochi (2024) conducted a study to compare how financial leverage affects profitability in selected cement and steel companies in India. The study has three main goals. First, it looks at how leverage impacts the profitability of selected cement companies. Second, it examines the same for selected steel companies. Third, it compares the results between the two industries. Ten companies from each sector were chosen based on their net profit. Financial statements of these companies were analysed. Leverage ratios like the debt-to-equity ratio were calculated. Profitability ratios such as return on assets, return on equity, and net profit margin were also measured. The study explores the link between leverage and profitability. It aims to suggest ways to manage leverage for better financial performance.

Ms. S. Sathiya (2024) conducted a study on the liquidity and solvency of the top 10 cement companies in India. The aim was to understand their financial stability and ability to meet short- and long-term obligations. The cement industry is important for India's infrastructure and economy. However, it faces issues like changing market conditions, raw material costs, and regulations. The study used liquidity ratios

like the current ratio and quick ratio. It also used solvency ratios such as the debt-to-equity ratio and interest coverage ratio. The results showed differences in financial strength among companies. UltraTech Cement Ltd. had strong liquidity and solvency. The Study offers useful insights for investors, stakeholders, and policymakers. It stresses the need to maintain good financial health. This is especially important in a competitive industry.

N.P. Singh (2023) studied the financial performance of selected cement companies in India. The cement industry is growing fast, mainly due to construction and government infrastructure projects. Ten companies were chosen based on market share and available data. The study used data from December 2011 to December 2020. Ratios like Liquidity, Quick Ratio, Net Profit Margin, Return on Equity, Return on Capital Employed, and Return on Assets were used to assess performance. The results showed that Indian Cement had the lowest liquidity ratio, while Heidelberg Cement had the highest. Ramco Cement had the highest quick ratio and also the lowest in some cases. Dalmia Cement had a higher net profit than others. Shree Cement showed the highest return on equity. ACC Cement had the highest return on investment, followed closely by Shree Cement. The study shows variation in financial performance across companies.

Lavina J (2023) carried out a comparative study on the financial performance of Ultratech Cement Ltd and Shree Cement Ltd. The study covers the period from 2018 to 2022. Its main goal is to analyse and compare the liquidity, profitability, and operational efficiency of these two major cement companies. It also looks at the overall growth and development of the Indian cement industry during this time. The research is based on secondary data from annual reports and financial statements. Ratio analysis is used to measure performance. The study helps understand how each company manages its finances. It highlights differences in efficiency and profitability between them. The findings offer useful insights for investors and stakeholders. It supports better decision-making in the cement sector. The study also reflects the competitive nature of the industry.

S. Gurujeyam (2023) "A Comparative Study On Financial Performance of Select Cement Company in India" India is the second largest producer and consumer of cement, with strong growth potential in infrastructure and construction. The cement industry plays a key role in economic development and job creation, acting as the foundation for all types of construction—from small buildings to large projects like dams. It attracts significant domestic and foreign investment and is moving towards global standards in production, energy efficiency, and sustainability. This study analyses the financial performance of three selected cement companies in India over five years (2018–19 to 2022–23), focusing on their liquidity position using various liquidity ratios.

Gajraj Singh (2022) studied the financial performance of the cement industry using DuPont analysis. The study focused on ten major companies listed on the BSE, including ACC Ltd, Ambuja Cement Ltd, Birla Corporation Ltd, Dalmia Bharat Ltd, JK Cement Ltd, JK Laxmi Cement Ltd, Prism Cement Ltd, Ramco Cement Ltd, Star Cement Ltd, and Ultratech Cement Ltd. The analysis covered the period from 2011 to 2021. The main aim was to measure financial performance using ROE and ROA through DuPont analysis. Tables were used to show changes in performance over the years. DuPont analysis is a key tool for judging a firm's operating financial performance. It helps understand a company's earning ability. ROE in DuPont analysis is broken into net profit margin, asset turnover, and equity multiplier. ROI includes asset turnover and profit margin. Asset turnover is calculated as Operating Income × Total Assets. Profit margin is calculated as EBIT × Operating Income. The model shows how operating, investing, and financing decisions affect profitability. The study concludes that ROE and ROI are strong measures of overall profitability.

Dr. M. Nirmala & Pavithra K. (2021) "Determinants of Financial performance: a Study on selected cement companies in India" This research was conducted to investigate the determinants of the financial performance selected cement companies in India. The performance of selected cement companies measured based on financial ratios like operating profit margin, gross profit margin, net profit margin, cash profit margin, return on capital employed, return on net worth, return on assets including revaluations, return on long term funds, current ratio, quick ratio, cash ratio, debt equity ratio, proprietary ratio, long term debt equity ratio, interest cover ratio and fixed asset to net worth ratio. The data for this research were collected from money control taken ten years data from 2009-2010 to 2018-2019. The findings are to be measured in

path way analysis and the result showing the comparative financial performance of the selected ratios with dependent ratio Net Profit Margin.

3.1 RESEARCH METHODOLOGY

RESEARCH

Research is a careful study of a topic to discover new information or ideas. It involves collecting information, analyzing data, and making conclusions. The process includes experiments, surveys, and reviewing past knowledge. Research aims to answer questions or solve problems. It helps improve understanding and encourages progress in many areas. It can be done in fields like science, medicine, and history. In the end, research helps advance both knowledge and society.

RESEARCH METHODOLOGY

Research methodology refers to the approach and techniques used to conduct research. It includes the methods for data collection, analysis, and interpretation. The methodology ensures that the research process is systematic and reliable. It helps researchers choose the right tools and strategies for their study. Overall, research methodology guides how a research project is carried out.

RESEARCH DESIGN

Research design is the plan used to carry out a research study in an organized way. It explains how data will be collected and analysed to answer the research questions. It includes choosing the type of study and the tools like surveys or experiments. Primary data is collected directly and is considered reliable. A good research design helps avoid mistakes and gives clear results.

DATA COLLECTION:

PRIMARY DATA

Primary data is information that has been gathered straight from the source. Methods such as surveys, interviews, or experiments are used to collect it. This data has never been examined or published before.

SECONDARY DATA

Secondary data is information already collected by others for a different purpose. It comes from sources like books, reports, articles, or government records. Researchers use it to study trends, compare results, or support their research. It's cheaper and quicker than collecting new data, but its accuracy depends on the source. It can be either numbers (quantitative) or (qualitative).

SAMPLE SIZE: The sample size is 5 years annual reports. (From 2020-2024)

TOOLS USED

- Ratio analysis
- Dupont analysis
- Trend analysis
- Fundamental analysis

RATIO ANALYSIS: Ratio analysis is a way to study a company's financial health by comparing different financial numbers. It includes ratios like profitability, liquidity, and efficiency to see how well the company is doing. Common ratios are current ratio, ROE, and debt ratio. It helps compare performance over time or with other companies. Investors and managers use it to make smart decisions, but it should be used with other tools for a full picture.

Types of Ratio Analysis:

- Liquidity Ratio
- Profitability Ratio
- Efficiency Ratio
- Solvency Ratio

TABLE SHOWING FORMULAS

RATIOS	MEANING	FORMULAS
Current ratio	Measures a company's ability to pay short-term obligations with current assets.	$\frac{\text{Current Asset}}{\text{Current Liabilities}}$
Quick ratio	Shows a company's short-term liquidity using only quick (liquid) assets.	$\frac{\text{Current Assets} - \text{Inventories}}{\text{Current Liabilities}}$
Gross profit margin	Indicates how efficiently a company produces goods compared to its sales.	$\frac{\text{Gross profit}}{\text{Revenue}} * 100$
Operating profit margin	Measures profit from regular business operations before interest and tax.	$\frac{\text{Operating Profit}}{\text{Net Sales}} * 100$
Return on assets (ROA)	Shows how efficiently a company uses its assets to generate profit.	$\frac{\text{Net Income}}{\text{Total Assets}} * 100$
Return on equity (ROE)	Indicates how well a company uses shareholders' funds to generate income.	$\frac{\text{Net Income}}{\text{Shareholder's Equity}} * 100$
Trade receivable turnover ratio	Measures how often receivables are collected during a period.	$\frac{\text{Net Sales}}{\text{Average Receivable}}$
Trade payable turnover	Shows how quickly a company pays its suppliers.	$\frac{\text{Net Purchases}}{\text{Average Trade Payables}}$
Debt ratio	Reflects the proportion of assets financed by debt.	$\frac{\text{Total Debt}}{\text{Total Assets}} * 100$
Interest coverage ratio	Assesses a company's ability to pay interest on debt.	$\frac{\text{Earning Before Interest And Tax}}{\text{Interest Expense}}$
Net profit margin	Shows the percentage of revenue left after all expenses.	$\frac{\text{Net Income}}{\text{Revenue}}$
Asset turnover ratio	Indicates how efficiently a company uses assets to generate sales.	$\frac{\text{Net Sales}}{\text{Average Total Assets}}$
Financial leverage	Measures the extent to which a company uses debt to finance assets.	$\frac{\text{Total Assets}}{\text{Total Equity}}$

TREND ANALYSIS

Trend Analysis is a method used to study data over time to identify patterns or trends. It helps in understanding whether a company's performance is improving, declining, or staying the same. This analysis is often done using financial statements over several years. It shows changes in revenue, profit, expenses,

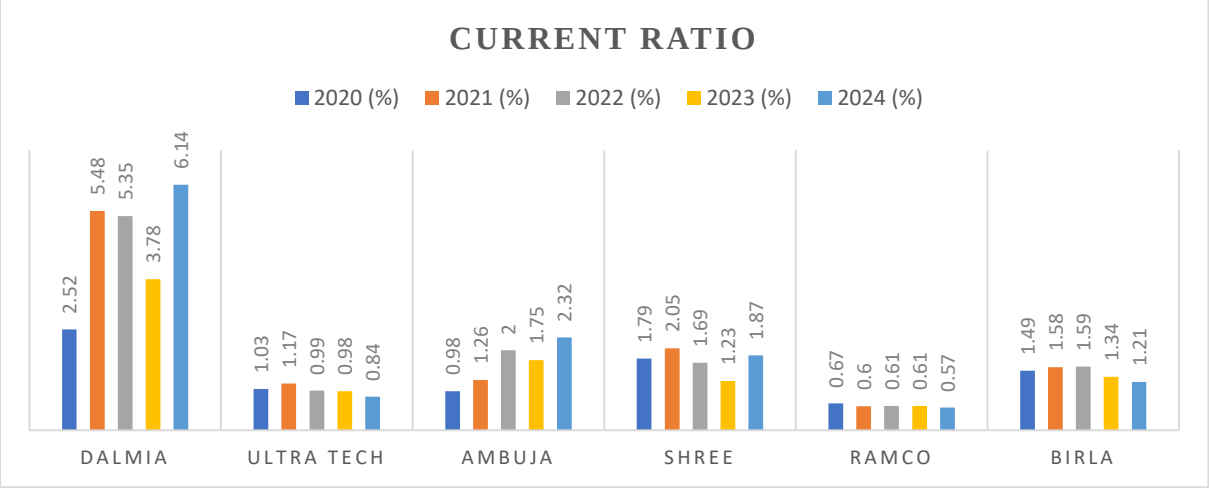
and other key figures. Trend Analysis helps in making future plans and decisions. It is useful for both businesses and investors. By spotting trends early, companies can take action to improve performance.

FUNDAMENTAL ANALYSIS

Fundamental analysis is a method used to evaluate a company's true value by studying its financial health, performance, and economic conditions. It looks at financial statements like income, balance sheet, and cash flow to understand profitability and stability. This analysis helps investors decide if a stock is overvalued or undervalued. It also considers factors like industry trends, management quality, and market position. The goal is to make long-term investment decisions based on real business strength.

3.2 DATA ANALYSIS AND INTERPRETATION

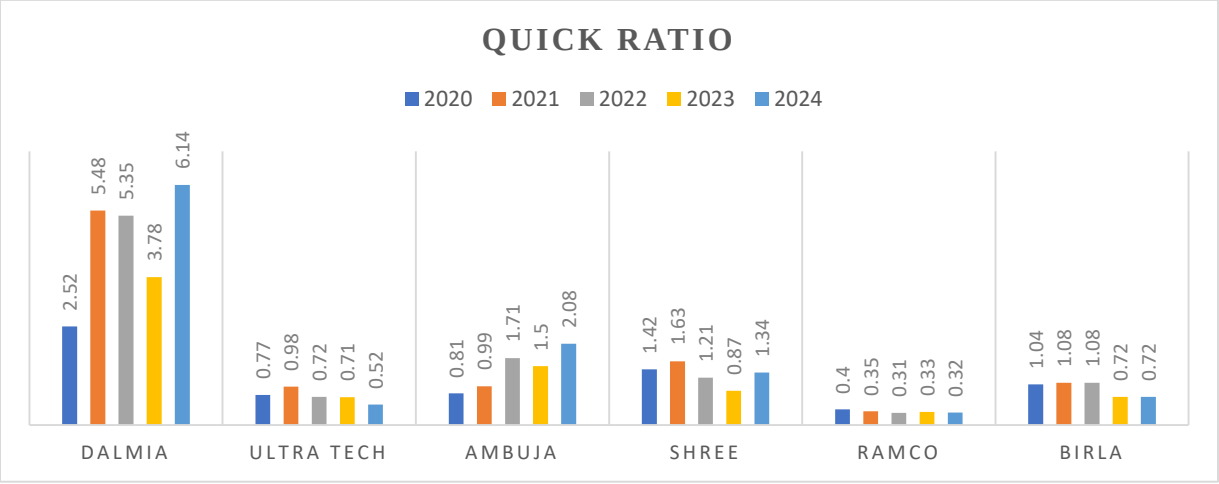
3.2.1 CHART SHOWING CURRENT RATIO



FINDINGS

The above table shows that Dalmia's current ratio was consistently higher than UltraTech, Ambuja, Shree, Ramco, and Birla, staying above 2.5 and reaching 6.14 in 2024. This indicates Dalmia could easily cover short-term debts. However, very high ratios may also suggest inefficient use of current assets.

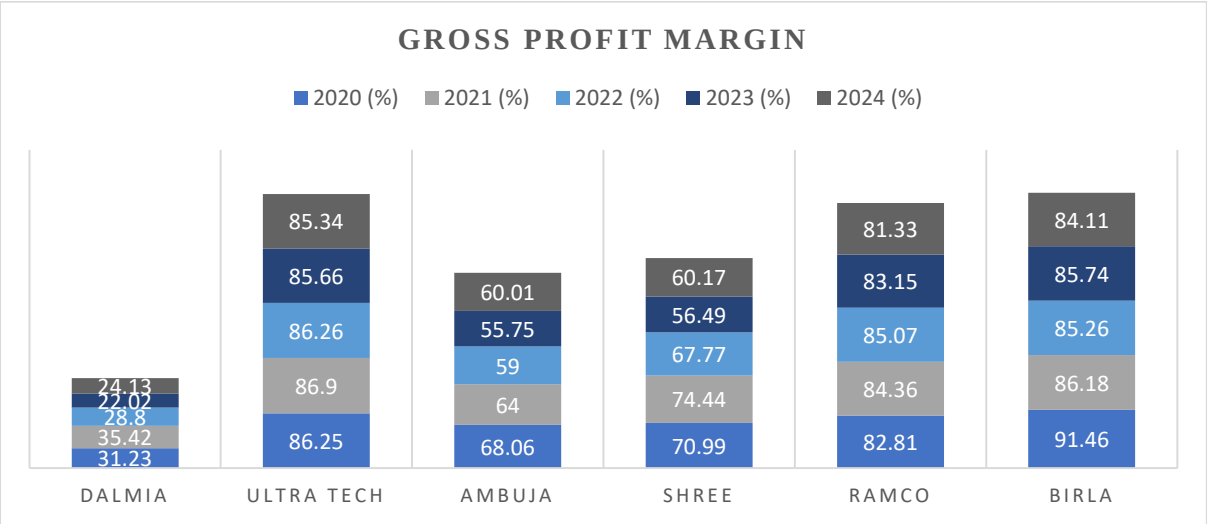
3.2.2 CHART SHOWING QUICK RATIO



FINDINGS

The above table shows Dalmia's quick ratio was much higher than companies like UltraTech, Ambuja, Shree, Ramco, and Birla in all years. While others mostly had ratios below 2, Dalmia's ratio stayed above 2.5 and went up to 6.14 in 2024. This means Dalmia was strong in paying its short-term liabilities quickly.

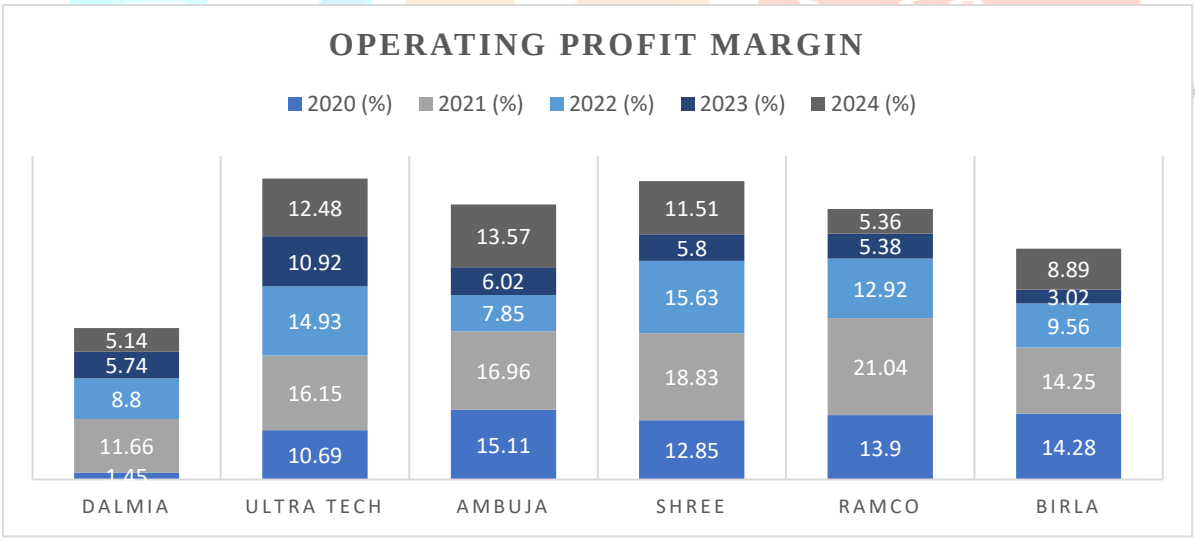
3.2.3 CHART SHOWING GROSS PROFIT MARGIN



FINDINGS

The above table shows that Dalmia Bharat's gross profit margin dropped from 31.23% in 2020 to 24.13% in 2024. In contrast, UltraTech and Ramco kept higher and more stable margins, showing better cost control. Ambuja and Shree Cement also saw some changes, but Dalmia's margin stayed lower than these key players.

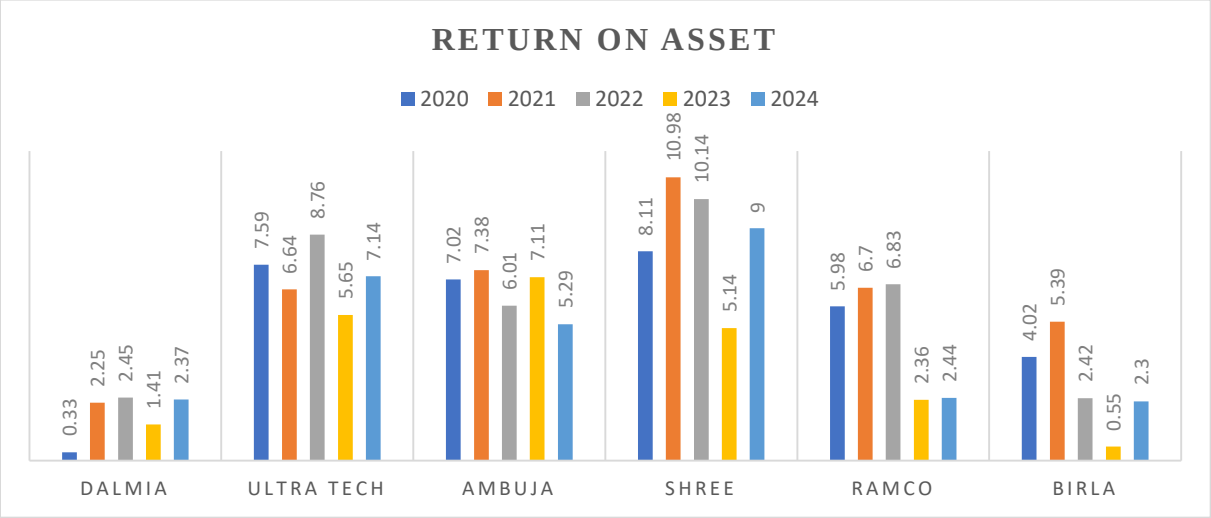
3.2.4 CHART SHOWING OPERATING PROFIT MARGIN



FINDINGS

The above table shows that Dalmia Bharat's operating profit margin peaked at 11.66% in 2021 but dropped to 5.14% in 2024. It stayed mostly lower than UltraTech and Ambuja, suggesting higher costs or pricing issues. Though Shree Cement and Ramco also had ups and downs, Dalmia's recent performance shows weaker profit-making from its core business.

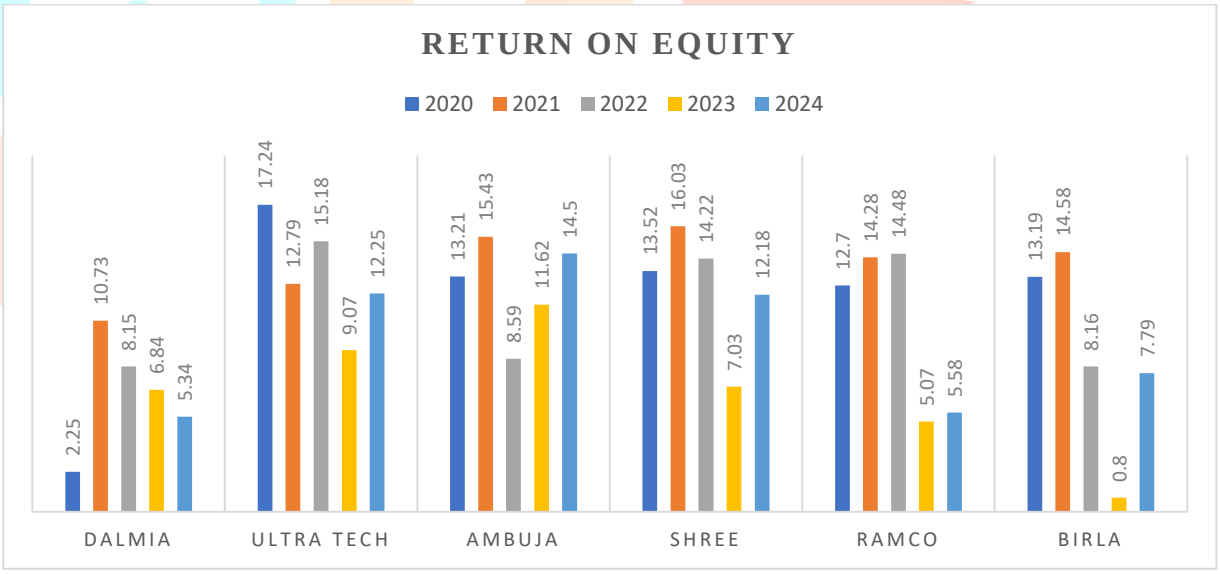
3.2.5 CHART SHOWING RETURN ON ASSET



FINDINGS

The above table shows that Dalmia's return on asset was much lower compared to companies like UltraTech, Ambuja, Shree, Ramco, and Birla in all years. While others had returns mostly between 5% and 11%, Dalmia stayed between 0.3% and 2.5%. This shows Dalmia was less efficient in using its assets to generate profits.

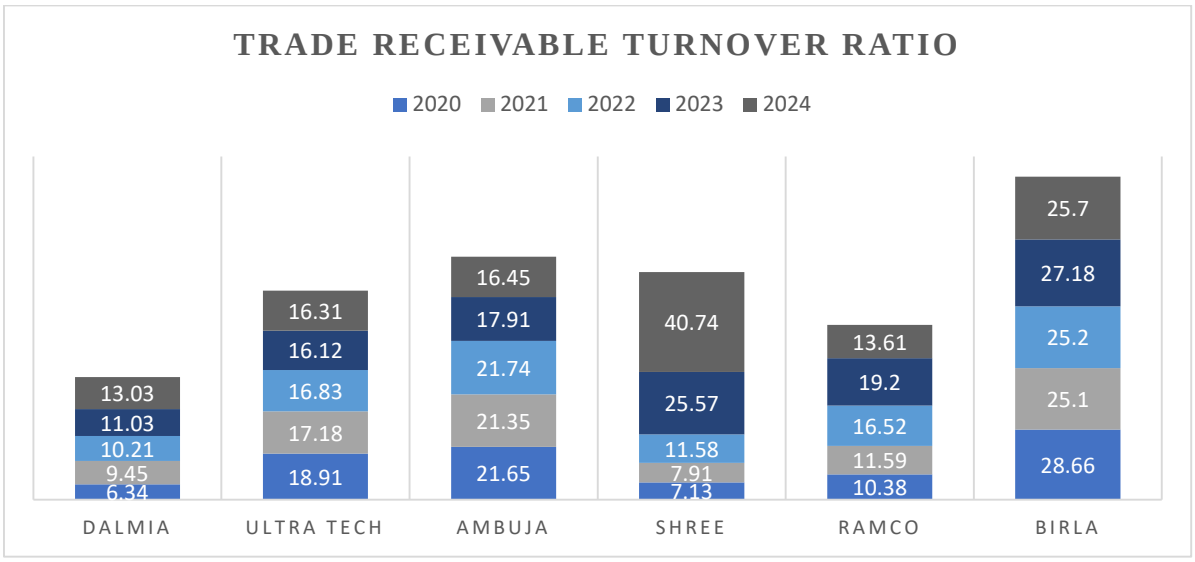
3.2.6 CHART SHOWING RETURN ON EQUITY



FINDINGS

The above table shows that Dalmia's return on equity increased in 2021 but kept declining after that, showing reduced profit for shareholders. Other companies like UltraTech, Ambuja, and Shree had higher and more stable returns. Ramco and Birla also performed better than Dalmia in most years.

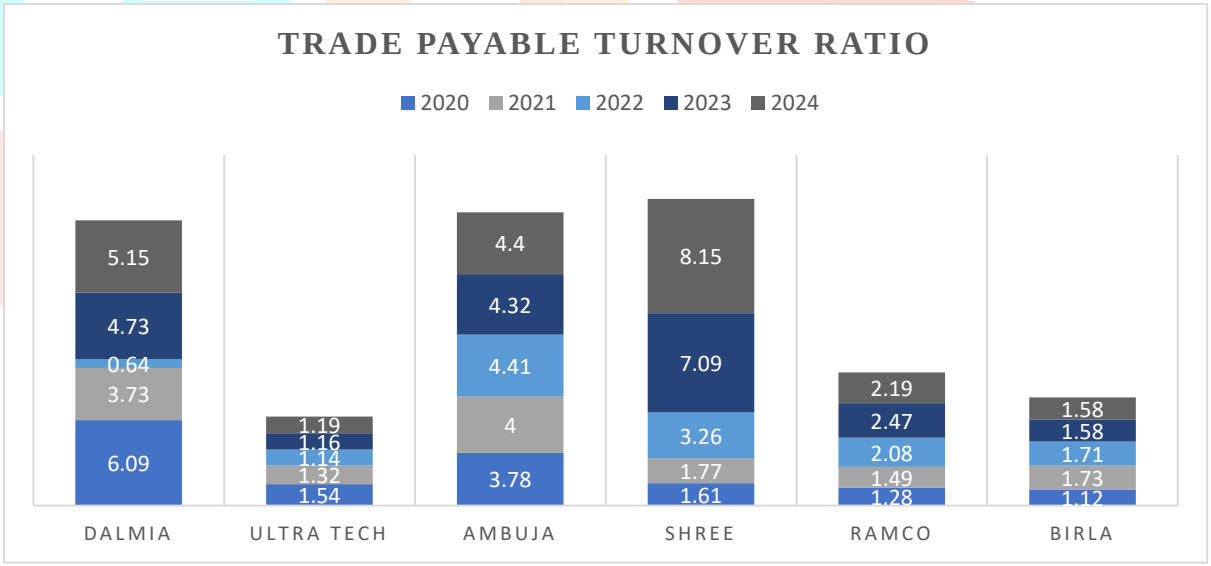
3.2.7 CHART SHOWING TRADE RECEIVABLES TURNOVER RATIO



FINDINGS

The above table shows that Dalmia Cement shows lower efficiency in collecting payments compared to Ultratech, Ambuja, and Birla over the five-year period. Its Trade Receivable Turnover Ratio consistently stays on the lower side, meaning it takes longer to collect cash from customers. This may reflect different credit policies or slower customer payments.

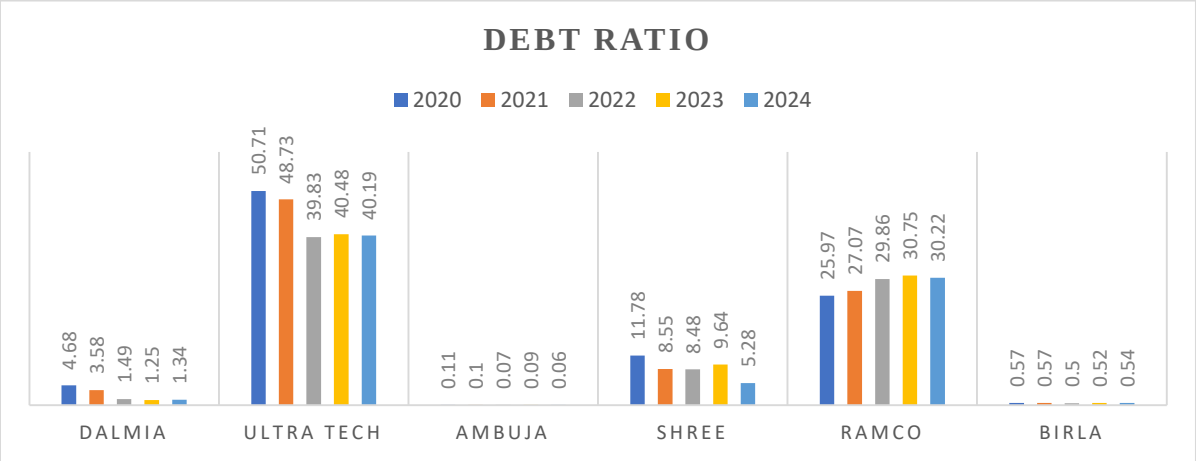
3.2.8 CHART SHOWING TRADE PAYABLE TURNOVER RATIO



FINDINGS

The above table shows that Dalmia Cement pays its suppliers more often than Ultratech, Ramco, and Birla, showing a higher Trade Payable Turnover Ratio. However, it pays less frequently than Shree and Ambuja in recent years. This suggests Dalmia may be getting shorter credit periods from its suppliers.

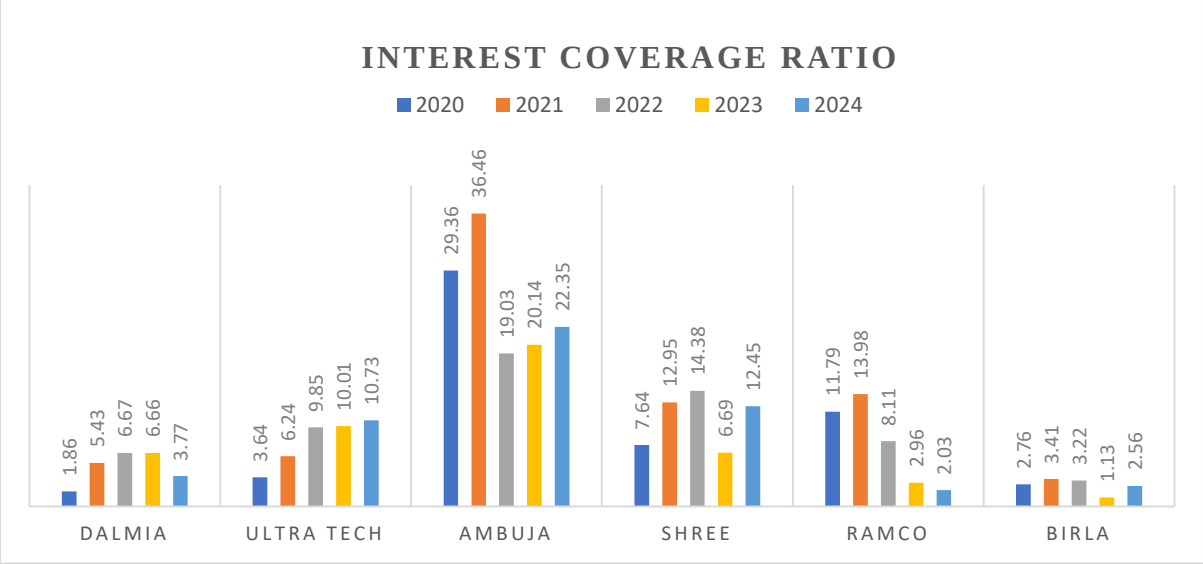
3.2.9 CHART SHOWING DEBT RATIO



FINDINGS

The above table shows that Dalmia Cement depends more on debt to run its operations compared to Ambuja and Birla. Although Shree and Ramco also use debt, Dalmia's debt levels have been noticeably higher, especially in earlier years. Ultratech also carries more debt than Ambuja and Birla but was usually less indebted than Dalmia at the start.

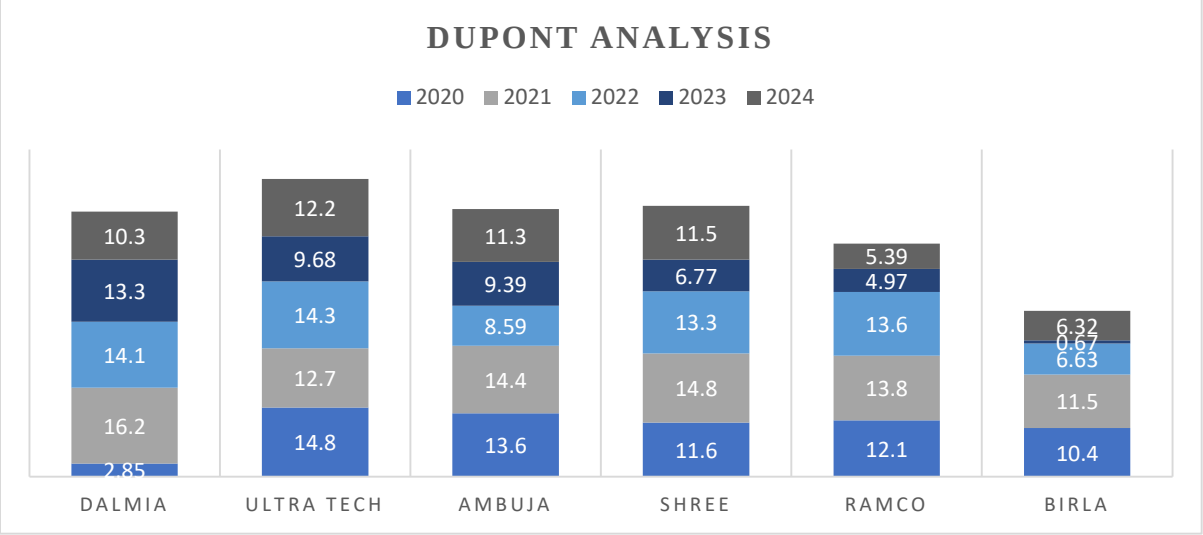
3.2.10 CHART SHOWING INTEREST COVERAGE RATIO



FINDINGS

The above table shows that Dalmia's interest coverage ratio improved until 2022 but decreased afterward, indicating some financial strain. Unlike Ambuja and UltraTech, which had steady ratios, Dalmia's performance was weaker. Overall, Dalmia's ability to cover interest payments is average compared to its peers.

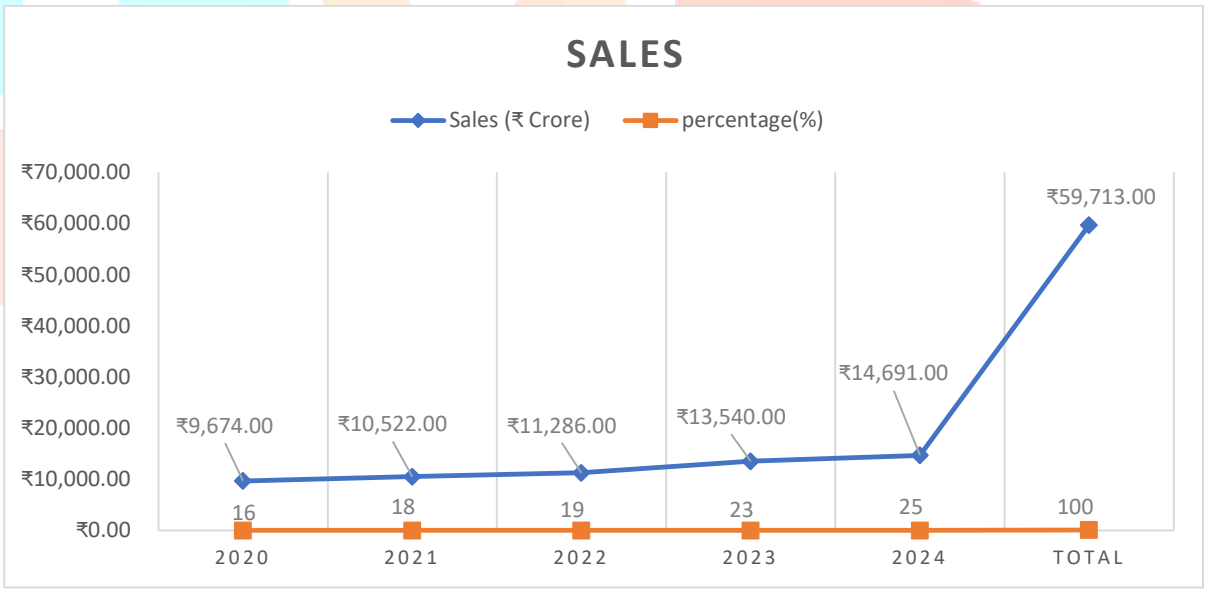
3.2.11 CHART SHOWING DUPONT ANALYSIS



FINDINGS

The above table shows that Dalmia's performance rose sharply from 2.85 in 2020 to 16.2 in 2021, but then gradually dropped to 10.3 by 2024. Unlike UltraTech and Ambuja, which stayed more stable, Dalmia's results were more up and down. Still, in 2024, Dalmia did better than Shree, Ramco, and Birla.

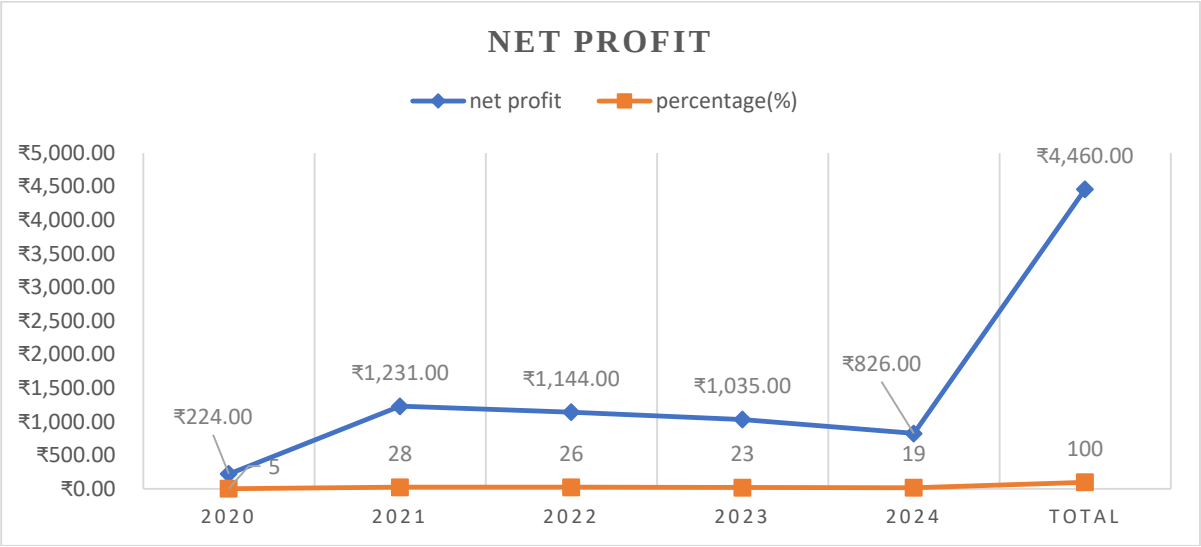
3.2.12 CHART SHOWING SALES PERCENTAGE OF DALMIA



FINDINGS

The above table shows that Dalmia's sales grew steadily from ₹9,674 crore in 2020 to ₹14,691 crore in 2024. Each year added more to the total sales, showing good growth and business improvement. In 2024, the company had the highest sales, making up 25% of the five-year total.

3.2.13 CHART SHOWING NET PROFIT OF DALMIA

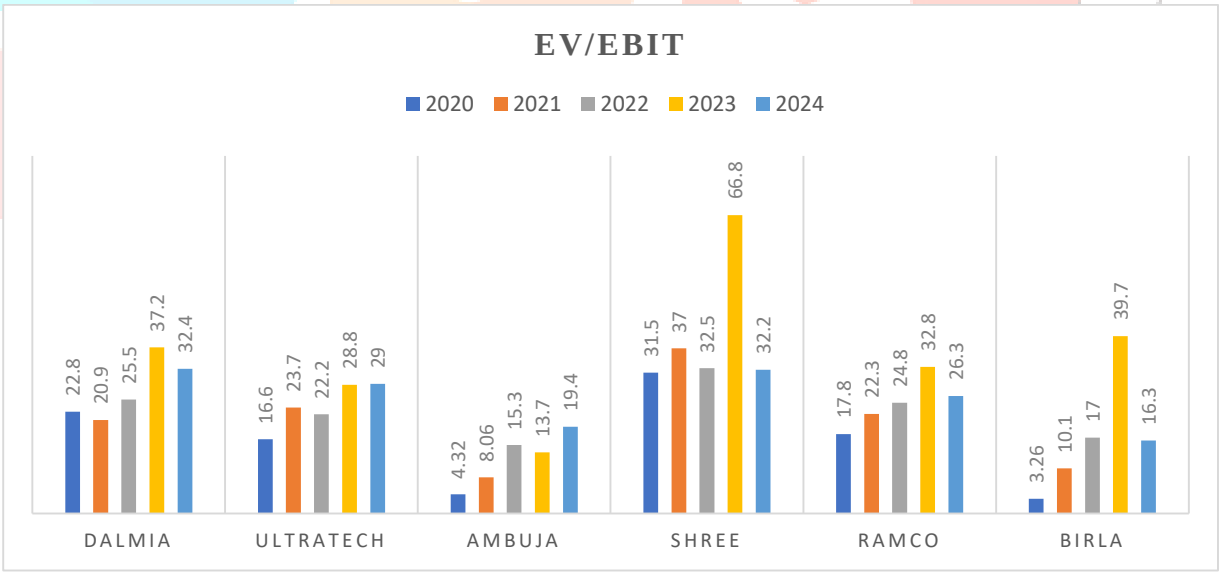


FINDINGS

The above table shows that Dalmia's net profit was highest in 2021 and gradually declined each year after that. This shows reducing profit performance over time. Compared to other companies with stable or growing profits, Dalmia's trend is weaker.

FUNDAMENTAL ANALYSIS

3.2.14 CHART SHOWING EV/EBIT



FINDINGS

The above table shows that Dalmia's EV/EBIT was higher than Ultratech, Ambuja, Ramco, and Birla in all years, showing better value and performance. It was slightly lower than Shree, especially in 2023 when Shree increased sharply. Dalmia's EV/EBIT grew steadily from 2021 to 2023, showing strong market trust, before a small fall in 2024. Overall, Dalmia stayed a leader among its peers.

SUMMARY OF FINDINGS

- It is inferred that Dalmia had a strong ability to pay its short-term debts compared to others. However, it's very high current ratio suggests it might not have used its current assets efficiently.
- It is inferred that Dalmia had a much stronger ability to pay short-term liabilities compared to other companies. Its high quick ratio shows good short-term financial strength.
- It is inferred that Dalmia Bharat may be facing challenges in managing production costs or pricing. Its lower margin compared to peers points to weaker cost efficiency.
- It is inferred that Dalmia Bharat is struggling to control its operating costs or maintain strong pricing. Its lower margins show weaker profit generation compared to some key competitors.
- It is inferred that Dalmia was less efficient in using its assets to earn profits compared to other companies. Its low return on assets shows weaker asset performance.
- It is inferred that Dalmia's ability to give profit to shareholders decreased after 2021. Most other companies gave better and more stable returns than Dalmia.
- It is inferred that Dalmia Cement's slower payment collection can delay cash coming into the business, affecting day-to-day operations. This may be due to loose credit rules or less efficient payment follow-ups.
- It is inferred that Dalmia Cement's frequent payments may reduce its cash on hand, affecting liquidity. It may also have less bargaining power to negotiate longer credit terms with suppliers.
- It is inferred that Dalmia Cement's higher debt levels may increase its financial risk and interest burden. This could affect its profitability and ability to manage downturns.
- It is inferred that Dalmia's declining interest coverage ratio suggests potential challenges in managing debt. This could lead to higher financial risk compared to its more stable competitors like Ambuja and UltraTech.
- It is inferred that Dalmia performed much better than other companies in terms of net profit margin. Even after some fall, it stayed much stronger and showed good profitability.
- It is inferred that Dalmia's asset usage was very weak compared to other companies. Its asset turnover stayed almost zero from 2021 to 2024, showing poor efficiency.
- It is inferred that Dalmia used less borrowed money compared to other companies from 2020 to 2024. This shows it followed a safer and more stable financial approach.
- It is inferred that Dalmia showed strong growth in 2021 but could not maintain that momentum in the following years. However, its 2024 performance remained better than some key competitors like Shree, Ramco, and Birla.
- It is inferred that cement sector is experiencing consistent growth, with Ultra Tech maintaining a strong lead. Other companies are also expanding steadily, showing a positive industry trend.
- It is inferred that steady rise in Dalmia's sales indicates strong business growth and consistent performance. The highest contribution in 2024 reflects increasing market demand and effective strategies.
- It is inferred that Ultra Tech maintains the highest net profit, reflecting strong financial stability. Other companies display varied performance with ups and downs, while smaller firms face challenges in sustaining consistent profits.
- It is inferred that Dalmia's profit went down after 2021, showing a drop in performance. Other companies did better with steady or rising profits.
- It is inferred that Dalmia's higher P/E ratio in 2023 indicates stronger valuations compared to UltraTech, Ambuja, and Birla, but lower than Shree. Its steady dividend yield was similar to UltraTech but lower than Ambuja's peak. Dalmia's moderate EV/EBIT suggests a balanced approach with stable returns and strong valuations compared to its peers.
- It is inferred that Dalmia showed stronger value and performance compared to most peers over the years. It remained a market leader, slightly behind Shree in some years.

SUGGESTIONS

Positive side

Dalmia Cement (Bharat) Limited shows a mixed financial performance when compared to other major cement companies. On the positive side, Dalmia has strong liquidity, as seen in its high current and quick ratios, meaning it can easily pay short-term debts. It also had high net profit margins in some years and steady sales growth, showing good potential and strong market presence. The company also keeps very low financial leverage, which reduces financial risk.

CONCLUSION

In conclusion, Dalmia Cement Bharat Limited has demonstrated strong liquidity and steady sales growth but faces challenges in improving its profitability and operational efficiency. The company should focus on optimizing its current and quick ratios to avoid inefficiencies in asset utilization. While its liquidity position is strong, Dalmia needs to work on increasing profitability to ensure long-term financial stability. The decline in its gross and operating profit margins highlights the need for better cost control and effective pricing strategies. Dalmia must also address declining return on assets and equity by improving asset utilization and delivering higher returns to shareholders. Additionally, improving trade receivable turnover and negotiating better credit terms with suppliers can enhance cash flow. Reducing reliance on debt and strengthening its interest coverage ratio will lower financial risks and improve flexibility. Dalmia should focus on stabilizing its performance and improving net profit, as the declining trend over the years signals potential competitive risks. By maintaining a strong valuation and leveraging its EV/EBIT ratio, the company can boost investor confidence. Overall, focusing on both profitability and asset efficiency while maintaining steady growth will strengthen Dalmia's market position.