

INTEGRATING PROFITABILITY ANALYSIS WITH FINANCIAL FORECASTING: ENHANCING ACCURACY IN BUSINESS PROJECTIONS AT NAGARJUNA CEMENT

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ABSTRACT

Profitability analysis is a critical financial tool used to assess a company's ability to generate earnings relative to its revenue, operating costs, assets, and equity over time. This study aims to evaluate the financial health and performance efficiency of a business by examining key profitability ratios such as **Gross Profit Margin, Operating Profit Margin, Net Profit Margin, Return on Assets (ROA), and Return on Equity (ROE)**.

The research is based on the financial data of selected companies or sectors, analyzing trends in income and expenses to determine the sustainability and strength of profit generation. It also explores internal and external factors affecting profitability, including market competition, cost control measures, pricing strategies, and economic conditions.

The findings reveal that consistent and high profitability reflects sound business operations, strong market positioning, and effective management. The study concludes that profitability analysis is essential for stakeholders—including investors, managers, and creditors—to make informed decisions regarding investments, growth strategies, and resource allocation.

I. INTRODUCTION

Every firm is most concerned with its profitability. One of the most frequently used tools of financial ratio analysis is profitability ratios which are used to determine the company's bottom line and its return to its investors. Profitability measures are important to company managers and owners alike. If a small business has outside investors who have put their own money into the company, the primary owner certainly has to show profitability to those equity investors.

Profitability ratios show a company's overall efficiency and performance. We can divide profitability ratios into two types: margins and returns. Ratios that show margins represent the firm's ability to translate sales dollars into profits at various stages of measurement. Ratios that show returns represent the firm's ability to measure the overall efficiency of the firm in generating returns for its shareholders.

Profitability ratios measure a company's ability to generate earnings relative to sales, assets and equity. These ratios assess the ability of a company to generate earnings, profits and cash flows relative to relative to some metric, often the amount of money invested. They highlight how effectively the profitability of a company is being managed.

Common examples of profitability ratios include return on sales, return on investment, return on equity, return on capital employed (ROCE), cash return on capital invested (CROCI), gross profit margin and net profit margin. All of these ratios indicate how well a company is performing at generating profits or revenues relative to a certain metric.

Different profitability ratios provide different useful insights into the financial health and performance of a company. For example, gross profit and net profit ratios tell how well the company is managing its expenses. Return on capital employed (ROCE) tells how well the company is using capital employed to generate returns. Return on investment tells whether the company is generating enough profits for its shareholders.

For most of these ratios, a higher value is desirable. A higher value means that the company is doing well and it is good at generating profits, revenues and cash flows. Profitability ratios are of little value in isolation. They give meaningful information only when they are analyzed in comparison to competitors or compared to

the ratios in previous periods. Therefore, trend analysis and industry analysis is required to draw meaningful conclusions about the profitability of a company.

Some background knowledge of the nature of business of a company is necessary when analyzing profitability ratios. For example sales of some businesses are seasonal and they experience seasonality in their operations. The retail industry is example of such businesses. The revenues of retail industry are usually very high in the fourth quarter due to Christmas. Therefore, it will not be useful to compare the profitability ratios of this quarter with the profitability ratios of earlier quarters. For meaningful conclusions, the profitability ratios of this quarter should be compared to the profitability ratios of similar quarters in the previous years.

Financial statements are prepared primarily for decision-making. They play a prominent role in setting the framework of managerial decisions. But the information provided in the financial statements is not an end in itself as no meaningful conclusions can be drawn from these statements alone. However, the information provided in financial statements is of immense use in making decisions through analysis and interpretation of financial statements.

Ratio analysis is used to evaluate relationships among financial statement items. The ratios are used to identify trends over time for one company or to compare two or more companies at one point in time. Financial statement ratio analysis focuses on three key aspects of a business: liquidity, profitability, and solvency.

NEED FOR THE STUDY

The problems, which are common to most of the public sectors under taking, are materials scarcity. Capacity utilization and mainly Profitability requirements and **Nagarjuna Cement Limited**. Are no exception. Thus the importance of the study reveals as to how efficiently the working capital has been used so far in the organization.

Profitability Analysis is one of the key areas of financial decision-making. It is significant because, the management must see that an excessive investment in current assets should protect the company from the problems of stock-out. Current assets will also determine the liquidity position of the firm.

The goal of **Profitability Analysis** is to manage the firm current assets and current liabilities in such a way that a satisfactory level of working capital is maintained. If the firm cannot maintain a satisfactory level of capital, it is likely to become insolvent and may be even forced into bankruptcy.

OBJECTIVES OF THE STUDY

- ❖ To examine the **Profitability Analysis** of the **Nagarjuna Cement Limited** for the period of 2020 to 2024.
- ❖ To analyses interpret and to suggest the **Profitability** efficiency of the **Nagarjuna Cement Limited** by comparing the balance sheet & profit & loss A/c.
- ❖ To critically analyses the financial performance of the **Nagarjuna Cement Limited**. With the help of ratios.
- ❖ To assess the capital employed by the **Nagarjuna Cement Limited**.
- ❖ To examine feasibility of present system of managing capital.
- ❖ To understand how the company finances its **Profitability**.
- ❖ To analyze the financial performance of the company with reference to **Profitability**.
- ❖ To give some suggestions to the management based on the information studied.

II.

RESEARCH METHODOLOGY

Use and Significance of *Profitability Analysis*

The **Profitability** is one of the most powerful tools of financial analysis. It is used as a device to analyze and interpret the financial health of enterprise. Thus ratios have wide applications and are of immense use today.

Managerial uses of ratio analysis

Helps in decision making

Financial statements are prepared primarily for decision-making. **Profitability** analysis helps in making decision from the, information provided in these Financial Statements.

a. Helps in financial forecasting and planning

Profitability analysis is of much help in financial forecasting and planning. Planning is looking ahead and the ratios calculated for a number of years work as a guide for the future. Thus, ratio analysis helps in forecasting and planning.

b. Helps in communicating

The financial strength and weakness of a firm are communicated in a more easy and understandable manner by the use of a ratio. Thus, ratios help in communication and enhance the value of the financial statements.

c. Helps in co-ordination

Profitability even help in co-ordination, which is of at most importance in effective business management. Better communication of efficiency and weakness of an enterprise result in better co-ordination in the enterprise.

d. Helps in control

Ratio analysis even helps in making effective control of business. The weakness is otherwise, if any, come to the knowledge of the managerial, which helps, in effective control of the business

e. Utility to shareholders/investors

An investor in the company will like to assess the financial position of the concern where he is going to invest. His first interest will be the security of his investment and then a return in form of dividend or interest. Ratio analysis will be useful to the investor in making up his mind whether present financial position of the concern warrants further investment or not.

f. Utility of creditors

The creditors or suppliers extent short-term credit to the concern. They are invested to know whether financial position of the concern warrants their payments at a specified time or not.

g. Utility to employees

The employees are also interested in the financial position of the concern especially profitability. Their wage increases and amount of fringe benefits are related to the volume of profits earned by the concern.

h. Utility to government

Government is interested to know overall strength of the industry. Various financial statement published by industrial units are used to calculate ratios for determining short term, long-term and overall financial position of the concerns.

i. Tax audit requirements

Sec44AB was inserted in the income tax act by financial act, 1984. Clause 32 of the income tax act requires that the following accounting ratios should be given:

- a. Gross profit/turnover.
- b. Net profit/turnover.
- c. Material consumed/finished goods produced.

Further, it is advisable to compare the accounting ratios for the year under consideration with the accounting ratios for earlier two years so that the auditor can make necessary enquiries, if there is any major variation in the accounting ratios.

Ratios are classified into following four important categories:

1. **Profitability** ratios - short-term financial strength

Data sources

The study is based on secondary data. However the primary data is also collected to fill the gap in the information.

- ❖ Primary data will be through regular interaction with the officials of **Nagarjuna Cement Limited**.

- ❖ Secondary data collected from annual reports and also existing manuals and like company records balance sheet and necessary records.

SCOPE OF THE STUDY

The scope of the study is limited to collecting financial data published in the annual reports of the company every year. The analysis is done to suggest the possible solutions. The study is carried out for 5 years

A study of the **Profitability Analysis** involves an examination of long term as well as short term sources that a company taps in order to meet its requirements of finance. The scope of the study is confined to the sources that **Nagarjuna Cement Limited** tapped over the years under study.

LIMITATIONS

- The study is based on only secondary data.
- Another limitation is that of standard ratio with which the actual ratios may be compared generally there is no such ratio, which may be treated as standard for the purpose of comparison because conditions of one concern differ significantly from those of another concern.
- The accuracy and correctness of ratios are totally dependent upon the reliability of the data contained in financial statements on the basis of which ratios are calculated.

III. REVIEW OF LITRETURE

Understanding Profitability

Profitability is the primary goal of all business ventures. Without profitability the business will not survive in the long run. So measuring current and past profitability and projecting future profitability is very important.

Profitability is measured with income and expenses. Income is money generated from the activities of the business. For example, if crops and livestock are produced and sold, income is generated. However, money coming into the business from activities like borrowing money do not create income. This is simply a cash transaction between the business and the lender to generate cash for operating the business or buying assets.

Expenses are the cost of resources used up or consumed by the activities of the business. For example, seed corn is an expense of a farm business because it is used up in the production process. Resources such as a machine whose useful life is more than one year is used up over a period of years. Repayment of a loan is not an expense, it is merely a cash transfer between the business and the lender.

Profitability is measured with an "income statement". This is essentially a listing of income and expenses during a period of time (usually a year) for the entire business. Decision Tool Income Statement - Short Form, is used to do a simple income statement analysis. An Income Statement is traditionally used to measure profitability of the business for the past accounting period. However, a "pro forma income statement" measures projected profitability of the business for the upcoming accounting period. A budget may be used when you want to project profitability for a particular project or a portion of a business.

Reasons for Computing Profitability

Whether you are recording profitability for the past period or projecting profitability for the coming period, measuring profitability is the most important measure of the success of the business. A business that is not profitable cannot survive. Conversely, a business that is highly profitable has the ability to reward its owners with a large return on their investment.

Increasing profitability is one of the most important tasks of the business managers. Managers constantly look for ways to change the business to improve profitability. These potential changes can be analyzed with a pro forma income statement or a Partial Budget. Partial budgeting allows you to assess the impact on profitability of a small or incremental change in the business before it is implemented.

A variety of Profitability Ratios (Decision Tool) can be used to assess the financial health of a business. These ratios, created from the income statement, can be compared with industry benchmarks. Also, Income Statement Trends (Decision Tool) can be tracked over a period of years to identify emerging problems.

ADVANTAGES OF RATIO ANALYSIS

- ❖ Ratio analysis simplifies the comprehension of financial statement.
- ❖ Ratio analysis provides data for inter firm comparison
- ❖ Ratio analysis helps in planning forecasting trends in cost, sales, profit and other related facts are revealed by the past ratios and future events can be forecast on the basis of such trends.
- ❖ Ratio may be used as an instrument of management control particularly in the area of sales cost.
- ❖ A ratio helps in investment decision to make profitable investment.
- ❖ Ratios also facilitate the function of communication. It can be easily conveyed through the ratio as what as happened during the two intervening periods.
- ❖ Ratios may also be used as a measure of efficiency.

LIMITATIONS OF RATIO ANALYSIS

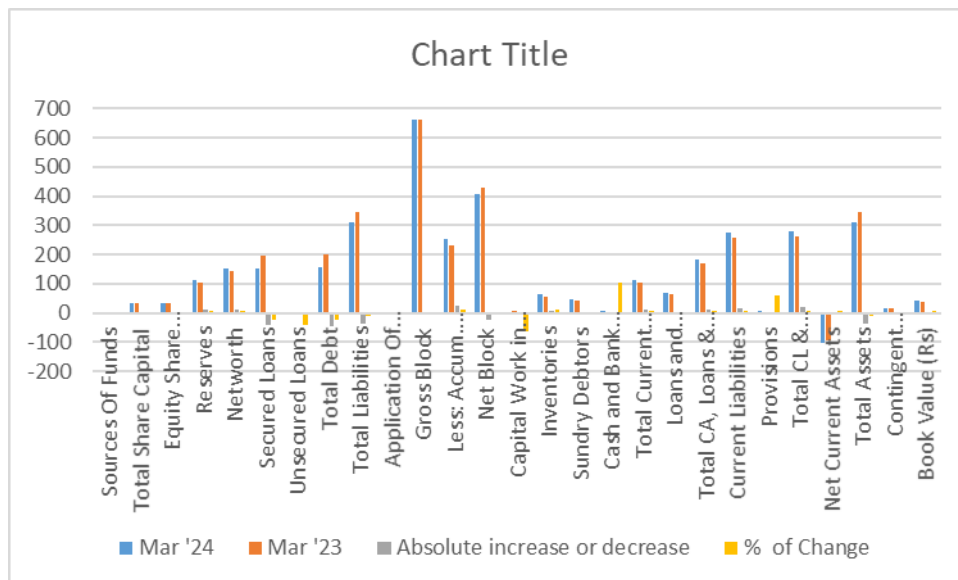
1. The analyst or the user must have comprehensive knowledge and experience about the concern whose statements have been used for calculating these ratios only the dependable conclusions may drawn thus ratios are signified tools only in the hands of experts in the hands of quacks for whom they may prove dangerous tools.
2. Ratios are not an end in themselves but they are a means to achieve a particular end. Hence it totally depends upon user or analyst as what conclusions is drawn on the basis of ratios calculated.
3. A single ratio in itself is not imported or as limited value because trends are more significant in the analysis.
4. Another limitation is that of standard ratio with which the actual ratios may be compared generally there is no such ratio, which may be treated as standard for the purpose of comparison because conditions of one concern differ significantly from those of another concern.
5. The accuracy and correctness of ratios are totally dependent upon the reliability of the data contained in financial statements on the basis of which ratios are calculated.
6. When ratios are used in the comparative study of two concerns there must be uniformity in the accounting plan used both concerns. Similarly there must be consistency in the preparation of financial statements and recording these transaction from year to year with in that concern.
7. analyst must be able to examine the nature of the data carefully. If accounting data lack uniformity particularly definitional uniformity, then ratio calculated on the basis of them will be misleading.
8. Ratios become meaningless if detached from the details, which they are deriving and in fact, they should be used as supplementary to, and not substitution of the original absolute figures.
9. The utility of ratios is largely dependent upon the method of presentation also.
10. Ratios make the comparatives study complicated and misleading on account of changes in price level.

IV. DATA ANALYSIS & INTERPRITATION

Comparative Analysis of NCL Industries limited: 2024-2025

	Mar '25	Mar '24	Absolute increase or decrease	% of Change
Sources Of Funds				
Total Share Capital	34.94	34.94	0	0
Equity Share Capital	34.94	34.94	0	0
Reserves	113.69	104.13	9.56	9.18083
Networth	152.63	143.07	9.56	6.68204
Secured Loans	152.92	196.41	-43.49	-22.142
Unsecured Loans	2.59	4.58	-1.99	-43.45
Total Debt	155.51	200.99	-45.48	-22.628

Total Liabilities	308.14	344.06	-35.92	-10.44
Application Of Funds				
Gross Block	661.47	661.35	0.12	0.01814
Less: Accum. Depreciation	254.71	231.41	23.3	10.0687
Net Block	406.76	429.94	-23.18	-5.3914
Capital Work in Progress	2.36	6.79	-4.43	-65.243
Inventories	63.33	57.38	5.95	10.3695
Sundry Debtors	44.48	43.92	0.56	1.27505
Cash and Bank Balance	5.68	2.80	2.88	102.857
Total Current Assets	113.49	104.10	9.39	9.02017
Loans and Advances	67.10	66.25	0.85	1.28302
Total CA, Loans & Advances	180.59	170.35	10.24	6.01115
Current Liabilities	274.82	258.80	16.02	6.19011
Provisions	6.76	4.22	2.54	60.1896
Total CL & Provisions	281.58	263.02	18.56	7.0565
Net Current Assets	-100.99	-92.67	-8.32	8.97809
Total Assets	308.13	344.06	-35.93	-10.443
Contingent Liabilities	16.53	17.24	-0.71	-4.1183
Book Value (Rs)	42.54	39.80	2.74	6.88442



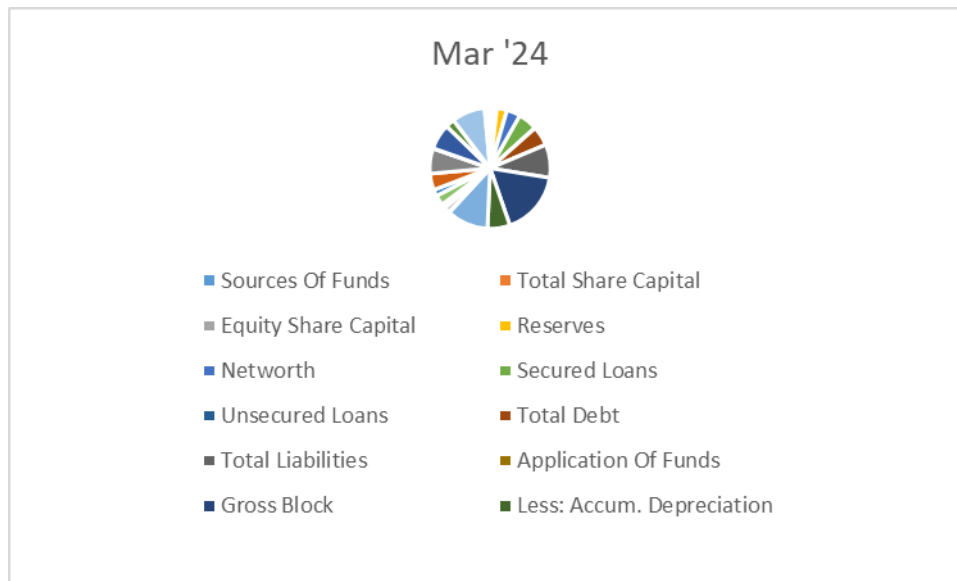
Interpretation:

By Analyzing the Trends of the company from 2024-2025 is in the good Position and The result of which both the assets and liabilities is given i.e. In the assets the Fixed assets was Gradually increased and in the year 2025 is was increased to more than 3% and in same case of liabilities also in the year 2025 it has a change of more than 5.68% in the long term liabilities

Hence the company is planning for the short term funding and long term liabilities for the Stability of the industry year by year.

Comparative Analysis of NCL Industries limited: 2023-2024

	Mar '24	Mar '23	Absolute increase or decrease	% of Change
Sources Of Funds				
Total Share Capital	34.94	34.94	0	0
Equity Share Capital	34.94	34.94	0	0
Reserves	104.13	140.84	-36.71	-26.065
Networth	143.07	175.78	-32.71	-18.6085
Secured Loans	196.41	150.98	45.43	30.09008
Unsecured Loans	4.58	6.80	-2.22	-32.6471
Total Debt	200.99	157.78	43.21	27.38623
Total Liabilities	344.06	333.56	10.5	3.147859
Application Of Funds				
Gross Block	661.35	625.10	36.25	5.799072
Less: Accum. Depreciation	231.41	202.27	29.14	14.40649
Net Block	429.94	422.83	7.11	1.681527
Capital Work in Progress	6.79	35.80	-29.01	-81.0335
Inventories	57.38	56.34	1.04	1.845935
Sundry Debtors	43.92	41.85	2.07	4.946237
Cash and Bank Balance	2.80	2.92	-0.12	-4.10959
Total Current Assets	104.10	101.11	2.99	2.957175
Loans and Advances	66.25	64.45	1.8	2.792863
Total CA, Loans & Advances	170.35	165.56	4.79	2.893211
Current Liabilities	258.80	282.44	-23.64	-8.36992
Provisions	4.22	8.19	-3.97	-48.4737
Total CL & Provisions	263.02	290.63	-27.61	-9.50005
Net Current Assets	-92.67	-125.07	32.4	-25.9055
Total Assets	344.06	333.56	10.5	3.147859
Contingent Liabilities	17.24	17.25	-0.01	-0.05797
Book Value (Rs)	39.80	50.31	-10.51	-20.8905



Interpretation:

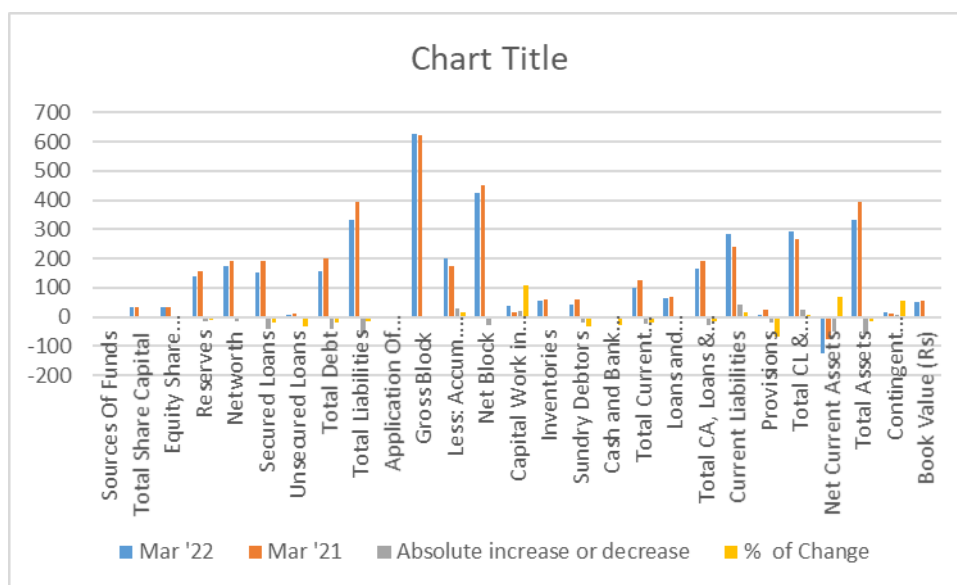
By Analyzing the Trends of the company from 2023-2024 is in the good Position and The result of which both the assets and liabilities is given i.e. In the assets the Fixed assets was Gradually increased and in the year 2024 is was increased to more than 6% and in same case of liabilities also in the year2024 it has a change of more than 9.25%in the long term liabilities

Hence the company is planning for the short term funding and long term liabilities for the Stability of the industry year by year.

Comparative Analysis of NCL Industries limited: 2022-2023

	Mar '23	Mar '22	Absolute increase or decrease	% of Change
Sources Of Funds				
Total Share Capital	34.94	34.94	0	0
Equity Share Capital	34.94	34.94	0	0
Reserves	140.84	156.48	-15.64	-9.9949
Networth	175.78	191.42	-15.64	-8.1705
Secured Loans	150.98	190.69	-39.71	-20.824
Unsecured Loans	6.80	9.95	-3.15	-31.658
Total Debt	157.78	200.64	-42.86	-21.362
Total Liabilities	333.56	392.06	-58.5	-14.921
Application Of Funds				
Gross Block	625.10	622.51	2.59	0.41606
Less: Accum. Depreciation	202.27	172.65	29.62	17.1561
Net Block	422.83	449.86	-27.03	-6.0085
Capital Work in Progress	35.80	17.14	18.66	108.868
Inventories	56.34	58.75	-2.41	-4.1021
Sundry Debtors	41.85	61.89	-20.04	-32.38
Cash and Bank Balance	2.92	4.07	-1.15	-28.256

Total Current Assets	101.11	124.71	-23.6	-18.924
Loans and Advances	64.45	67.47	-3.02	-4.4761
Total CA, Loans & Advances	165.56	192.18	-26.62	-13.852
Current Liabilities	282.44	240.63	41.81	17.3752
Provisions	8.19	26.50	-18.31	-69.094
Total CL & Provisions	290.63	267.13	23.5	8.79721
Net Current Assets	-125.07	-74.95	-50.12	66.8712
Total Assets	333.56	392.05	-58.49	-14.919
Contingent Liabilities	17.25	11.19	6.06	54.1555
Book Value (Rs)	50.31	54.79	-4.48	-8.1767



Interpretation:

By Analyzing the Trends of the company from 2022-2023 is in the good Position and The result of which both the assets and liabilities is given i.e. In the assets the Fixed assets was Gradually increased and in the year 2022 is was increased to more than 5% and in same case of liabilities also in the year 2023 it has a change of more than 9%in the long term liabilities

Hence the company is planning for the short term funding and long term liabilities for the Stability of the industry year by year.

V. FINDINGS

1. The company's **share capital remained constant** at ₹34.94 crore throughout the study period, indicating no major equity expansion.
2. **Reserves and surplus increased** from ₹103.01 crore in 2020-21 to ₹113.69 crore in 2024-25, reflecting the company's ability to retain earnings over the long term.
3. The company significantly reduced its **total debt** from ₹319.87 crore in 2020-21 to ₹155.51 crore in 2024-25, showing improved financial stability and lower dependence on borrowings.
4. Net worth increased from ₹137.95 crore in 2020-21 to ₹152.63 crore in 2024-25, indicating growth in shareholders' funds.
5. Current assets increased gradually over the years, while inventories and receivables were maintained at manageable levels.

6. The company faced negative net current assets during several years, indicating pressure on short-term liquidity management.
7. Net Profit Ratio declined sharply during 2022-23 and 2023-24 due to losses but recovered to 1.67% in 2024-25.
8. Operating Ratio remained high throughout the study period, reaching 87.08% in 2024-25, indicating a large portion of revenue was consumed by operating expenses.
9. Profitability was highest in 2021-22 at 26.96% and declined in subsequent years due to increased operating costs and reduced earnings.
10. Return on Investment (ROI) showed considerable fluctuations, moving from 126.65% in 2021-22 to 25.47% in 2024-25 after experiencing negative returns during loss-making years.
11. Operating Margin decreased from 27.37% in 2021-22 to 14.05% in 2024-25, indicating declining operating efficiency.
12. Return on Assets (ROA) became negative during 2022-23 and 2023-24 but recovered to 2.89% in 2024-25, reflecting improved asset utilization.
13. The company showed signs of recovery in 2024-25 through improved profitability, reduced debt, and increased cash balances.

VI. SUGGESTIONS

1. The company should focus on improving its **net profit margin** by controlling production and operating costs.
2. Management should strengthen **working capital management** to reduce the negative net current asset position.
3. Efforts should be made to increase sales revenue through market expansion and product diversification.
4. The company should continue its policy of reducing debt to minimize interest burden and improve financial flexibility.
5. Better inventory management practices should be adopted to optimize stock levels and reduce carrying costs.
6. The company should improve asset utilization to enhance Return on Assets and overall profitability.
7. Cost-control measures should be implemented to reduce the operating ratio and improve operating margins.
8. Greater emphasis should be placed on cash flow management to ensure adequate liquidity for day-to-day operations.
9. Investment in technology and operational efficiency programs can help improve productivity and profitability.
10. Regular financial performance monitoring should be undertaken to identify potential risks and corrective actions at an early stage.

VII. CONCLUSIONS

The study of NCL Industries Limited reveals that the company experienced both growth and challenges during the period from 2020-21 to 2024-25. While the company faced declining profitability and losses during 2022-23 and 2023-24, it demonstrated a positive recovery in 2024-25 through improved profits, reduced debt levels, increased reserves, and stronger cash positions. The reduction in borrowings indicates effective financial restructuring and improved solvency. However, concerns regarding liquidity, high operating expenses, and fluctuating profitability still require attention.

Overall, NCL Industries Limited maintains a reasonably stable financial position with strong potential for future growth. By improving operational efficiency, strengthening working capital management, and continuing prudent financial policies, the company can enhance its profitability, liquidity, and shareholder value in the coming years.

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