



A STUDY ON ROLE OF GREEN FINANCE IN SUSTAINABLE DEVELOPMENT WITH REFERENCE TO TATA MOTORS

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ABSTRACT

This study aims to identify the impact and importance of green finance in the promotion of sustainable development, using Tata Motors as a case study. Green finance is the allocation of financial resources to environment-friendly projects and practices. This study is based on a descriptive and analytical research design, using secondary sources such as annual and sustainability reports. Various financial ratios have been used to understand the company's performance and commitment to green finance. This study has identified the importance of green investments in the reduction of environmental impacts and the promotion of corporate social responsibility. It has also identified the challenges in the implementation of sustainable financial strategies. This study has found that green finance is vital in the promotion of long-term economic growth and environmental sustainability. Tata Motors has been identified as a company that has made notable contributions to the promotion of green finance through the use and promotion of electric vehicles and environmental-friendly practices. This study has found that green finance is vital in the promotion of sustainable development goals.

KEYWORDS: Green Finance, Sustainable Development, Tata Motors, Financial Performance, Environmental Sustainability

1. INTRODUCTION

Green finance involves financial investments aimed at backing projects and initiatives that promote environmental sustainability. It encompasses green bonds, green loans, and funding for renewable energy and environmentally friendly technologies. Sustainable development seeks to fulfill current requirements without affecting the capacity of future generations. In recent years, companies such as Tata Motors have implemented eco-friendly financial approaches to minimize their environmental footprint and encourage sustainable practices within the automotive sector.

2. STATEMENT OF THE PROBLEM

The rising extent of environmental damage and global climate change has led to a growing demand for financially sustainable approaches. Traditional funding approaches frequently overlook environmental consequences, resulting in development that is not sustainable. While green finance has become a proposed solution, its implementation within industries is still restricted. Tata Motors has implemented measures, yet obstacles remain regarding execution and financial support. This study seeks to examine the role and impact of green finance in promoting sustainable development.

3. OBJECTIVES OF THE STUDY

1. To analyze the role of green finance initiatives adopted by Tata Motors in promoting sustainable development.
2. To evaluate the impact of green finance on the financial performance and environmental sustainability of Tata Motors.

4. REVIEW OF LITERATURE

Various studies have shown that green finance is becoming increasingly important for promoting sustainable development. Researchers like Sharma and Verma have pointed out how green bonds can finance eco-friendly infrastructure and lower carbon emissions. Kumar et al. discovered that ESG (Environmental, Social, Governance) investments boost corporate sustainability performance and investor confidence. Similarly, reports from international organizations like the World Bank and OECD have identified green finance as a crucial tool for tackling climate change and encouraging long-term economic growth.



These studies indicate that companies like Tata Motors are adopting green initiatives, including electric vehicles and sustainable manufacturing practices. Singh and Rao noted that green finance enables industries to lessen their environmental impact while keeping financial stability.

However, the existing literature also highlights challenges, such as high investment costs and a lack of awareness. Overall, past research supports the positive link between green finance and sustainable development.

5. RESEARCH METHODOLOGY

The study adopts a descriptive research design to examine the role of green finance in promoting sustainable development with reference to Tata Motors. The research focuses on analyzing financial and sustainability related data to understand the impact of green initiatives.

Secondary data were collected from published annual reports, sustainability reports, company websites, journals, magazines, and other reliable online sources related to Tata Motors. These sources provide relevant financial and environmental performance data required for the study.

- Liquidity Ratios (Current Ratio)
- Leverage Ratios (Debt Equity Ratio)
- Profitability Ratios (Net Profit Ratio)
- Efficiency Ratios (Asset Turnover Ratio)

6. ANALYSIS AND INTERPRETATION

6.1 – CURRENT RATIO:

The Current Ratio is a key liquidity ratio used to measure a company's ability to meet its short-term obligations using its short-term assets. It shows how well a business can pay its current liabilities with its current assets such as cash, inventory, and receivables.

Current Ratio = Current Assets / Current Liabilities

TABLE SHOWING CURRENT RATIO

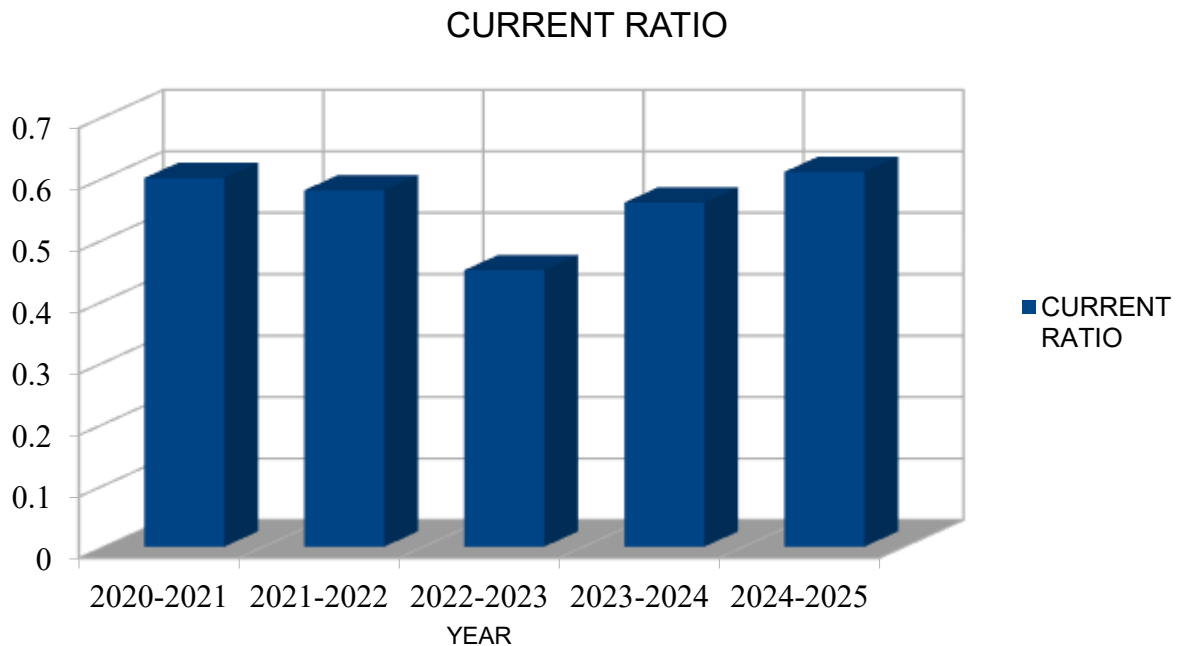
YEAR	CURRENT RATIO
2020-2021	0.60
2021-2022	0.58
2022-2023	0.45
2023-2024	0.56
2024-2025	0.61

INFERENCES

The current ratio shows a fluctuating trend during the study period, with a decline from 0.60 in 2020–2021 to 0.45 in 2022–2023, indicating a weakening liquidity position. However, the ratio improved in the later years, reaching 0.61 in 2024–2025, reflecting a gradual recovery in short-term financial stability. Overall, the ratio remains below the ideal level, suggesting that the company may face challenges in meeting its short-term obligations.



CHART SHOWING CURRENT RATIO

**6.2 – DEBT EQUITY RATIO**

It is a solvency ratio that shows the proportion of a company's total debt to its shareholders' equity. It indicates the extent to which the company is financed by borrowed funds compared to owners funds.

Debt-Equity Ratio = Total Debt ÷ Shareholders' Equity

TABLE SHOWING DEBT EQUITY RATIO

YEAR	DEBT-EQUITY RATIO
2020-2021	1.36
2021-2022	1.13
2022-2023	0.81
2023-2024	0.54
2024-2025	0.45

INFERENCES

The debt-equity ratio shows a consistent declining trend from 1.36 in 2020–2021 to 0.45 in 2024–2025, indicating a gradual reduction in the company's dependence on external debt. This reflects improved financial stability and a stronger equity base over the years. Overall, the company appears to be moving towards a more conservative capital structure with lower financial risk.



DEBT EQUITY RATIO

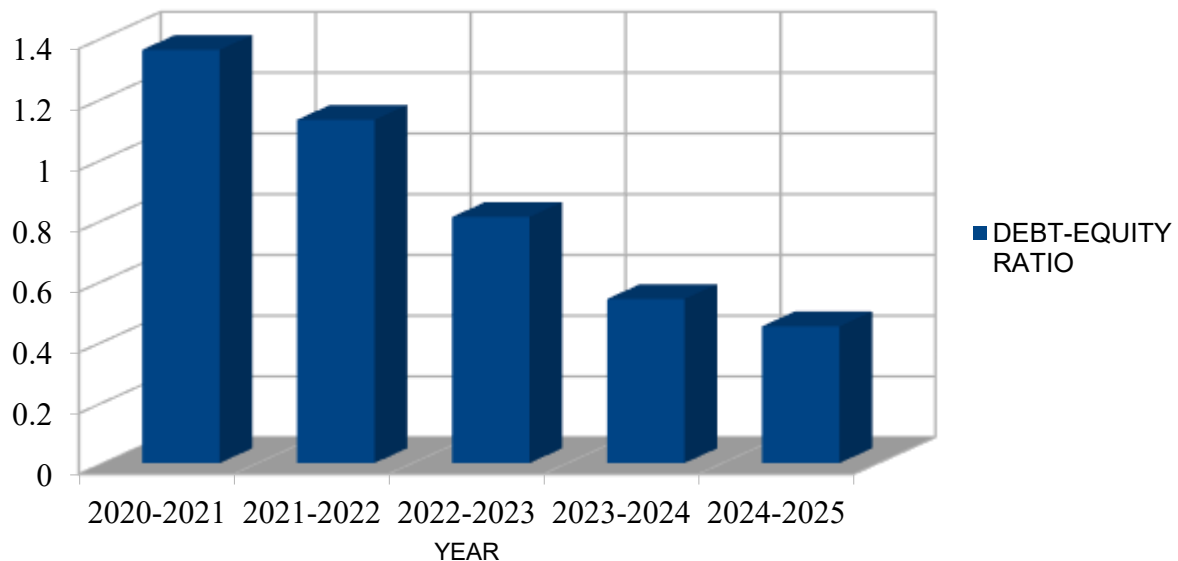


CHART SHOWING DEBT EQUITY RATIO

6.3 – NET PROFIT RATIO

The Net Profit Ratio measures the overall profitability of a company and shows how much net profit is earned from total revenue.

$$\text{Net Profit Ratio} = (\text{Net Profit} / \text{Revenue}) \times 100$$

TABLE SHOWING NET PROFIT RATIO

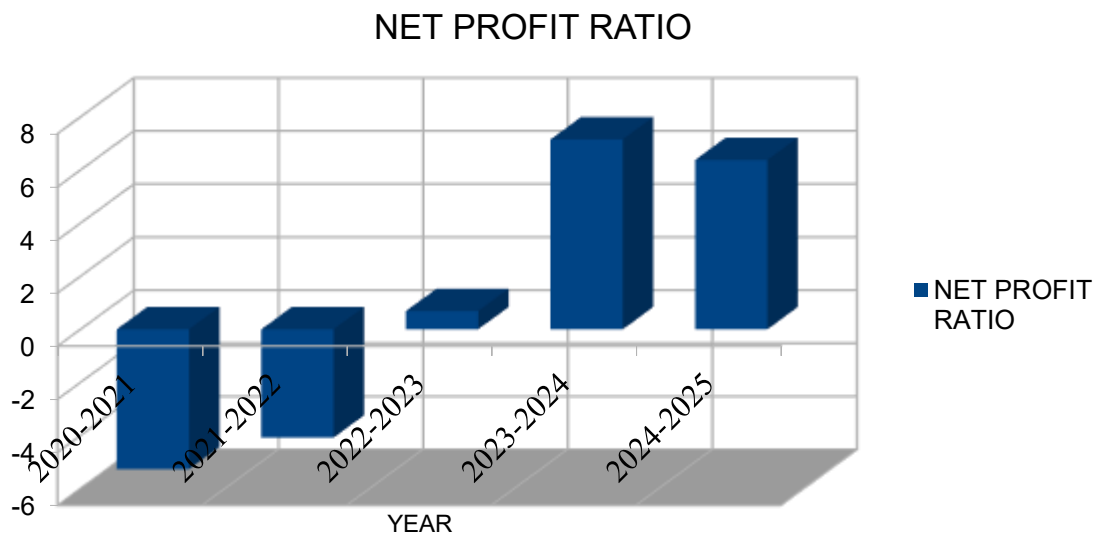
YEAR	NET PROFIT RATIO
2020-2021	-5.27
2021-2022	-4.08
2022-2023	0.69
2023-2024	7.15
2024-2025	6.38

INFERNCES

The net profit ratio shows a significant improvement over the five-year period. Initially, the company faced losses with negative ratios (-5.27 and -4.08), indicating poor profitability. From 2022–2023 onwards, the company turned profitable, reaching a peak of 7.15 in 2023–2024, though it slightly declined to 6.38 in 2024–2025. Overall, this trend reflects strong recovery and improved efficiency in generating profits.



CHART SHOWING NET PROFIT RATIO



6.4 – ASSET TURNOVER RATIO

The Asset Turnover Ratio is an efficiency ratio that measures how effectively a company uses its total assets to generate sales revenue. It indicates how efficiently the firm is utilizing its assets to produce income.

Asset Turnover Ratio = Net Sales / Average Total Asset

TABLE SHOWING ASSET TURNOVER RATIO

YEAR	ASSET TURNOVER RATIO
2020-2021	3.80
2021-2022	4.31
2022-2023	5.55
2023-2024	6.58
2024-2025	6.68

INFERENCES

The asset turnover ratio shows a consistent increasing trend from 3.80 in 2020–2021 to 6.68 in 2024–2025, indicating continuous improvement in asset utilization. This growth reflects that the company is becoming more efficient in generating sales from its assets over the years. Overall, the rising trend signifies strong operational performance and effective management of assets.



ASSET TURNOVER RATIO

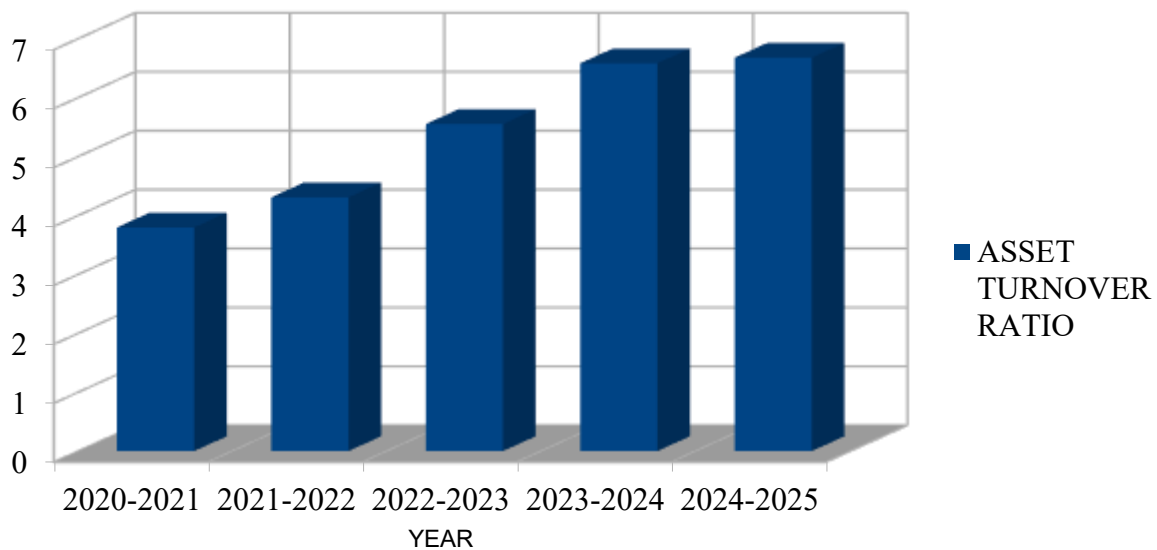


CHART SHOWING ASSET TURNOVER RATIO

7. SUGGESTION

The company should focus on maintaining an optimal balance between debt and equity to ensure long-term financial stability while minimizing risk. It should also continue improving operational efficiency and cost control to sustain profitability and better utilize its assets. Additionally, adopting innovative and sustainable financial practices, especially in areas like green finance, can enhance overall performance and support future growth.

8. LIMITATION OF STUDY

The study is based only on secondary data collected from published financial statements, which may not reflect real-time changes. The analysis is limited to a specific period of five years and may not capture long-term trends. Additionally, the study focuses on a single company, so the findings may not be applicable to other organizations or industries.

9. CONCLUSION The study concludes that the company has shown significant improvement in its financial performance over the years. Profitability has increased as seen in the positive net profit ratio after initial losses. The declining debt-equity ratio indicates reduced financial risk and a stronger equity position. The rising asset turnover ratio reflects efficient utilization of assets and better operational performance. Overall, the company demonstrates stable growth with a positive outlook for future sustainability.

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