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An Analytical Study of Financial Ratios of Selected Automobile Companies in India

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ABSTRACT

By examining the relationship of the financial ratios of the companies, this study investigates whether changes in the financial ratios of companies. The main purpose of this study is to determine, forecast and evaluate the best of economic conditions and the company's performance in the future. The other purpose of this study is to analyze the financial statement and then give information for financial managers to make decisions about their business. In this selected two automobile companies in India. The main objective of this project is to analyse the profitability of the companies for the last five years (2016-2022). My study is based on secondary data. Financial position is analyzed by different ratios. From the study, the position of Maruti Suzuki and Tata Motors is ascertained. This project shows the change in profitability.

Keywords: Financial ratios, Efficiency, Automobile companies

INTRODUCTION

The Indian automotive sector has traditionally served as a reliable barometer for economic health, given its pivotal role in macroeconomic growth and technological progress. The dominance of the two-wheeler segment, attributed to a burgeoning middle class and a sizable young population in India, underscores its significant market share. Additionally, the industry's expansion into rural markets and the increasing focus of businesses in this direction have contributed to sectoral growth. The flourishing logistics and passenger transportation sectors are propelling a surge in demand for commercial vehicles. Furthermore, the future trajectory of market expansion is expected to be shaped by emerging trends, notably the electrification of vehicles, with a specific emphasis on three-wheelers and compact passenger cars.

In India, possessing a four-wheeler has traditionally been perceived as a significant luxury, second only to owning a home, deemed a necessity by some and a luxury by others. However, with the passage of time and an increase in purchasing power, owning a car has gradually transitioned from being solely a status symbol to becoming a practical necessity.

The growth of the four-wheeler industry in India was relatively sluggish from the 1950s to the 1970s. It was only after the economic liberalization in 1992 that the Indian automobile market began to open up, permitting global giants such as Toyota, Hyundai, Suzuki, and others to invest in India.

Review of literature

Khedkar (2015) Examined the correlation between financial leverage and return on investment, operating leverage and return on investment, and combined leverage and return on investment for Dr Reddy's Laboratories, utilizing data from the financial year 2013-14. The findings indicated a substantial and negative correlation between the degree of operating leverage and return on investments. Additionally, the degree of financial leverage and combined leverage showed a positive, albeit not statistically significant, association with return on investments. The study recommended that Dr Reddy's Laboratories reconsider its capital structure, emphasizing the need for an optimal mix of equity and borrowed funds to positively influence return on investment.

Sanjay Hiran (2016) In his examination of the Financial Performance Analysis of Indian Companies in the Automobile Industry, with a specific focus on Liquidity and Leverage, the researcher scrutinized 25 out of 29 Indian automobile companies listed in the CNX500 Index of NSE. The study encompassed a comprehensive analysis of data spanning five years, from 2011 to 2015. The findings revealed that the inventory turnover ratio demonstrated a negative correlation with operating profit. Conversely, the quick ratio exhibited a positive correlation with both operating profit and net profit. On the other hand, the current ratio displayed a negative relationship with net profit. Notably, the research emphasized that except combined leverage, both operating and financial leverage exhibited a significant and negative association with profitability.

Lebo et al. (2017) The researchers analyzed data spanning the years 2007 to 2016 for 12 automotive companies listed on the IDX (Indonesian Stock Exchange) using a panel data random effect regression model. Their conclusions indicated a positive correlation between BV/MV (Book Value to Market Value ratio), chosen as a representation of stock value, and ROA (Return on Assets). However, the study did not establish a statistically significant relationship between the current ratio or leverage ratio and BV/MV.

Yuniningsih et al. (2018) research delved into the corporate financial performances of automotive companies listed on the Indonesian Stock Exchange from 2012 to 2016, utilizing ROA (Return on Assets) as the dependent variable. The study incorporated independent variables such as leverage ratio, firm size, and firm growth. The findings brought to light that both the leverage ratio and firm size did not exert a significant influence on business performance. However, it was revealed that firm growth had a noteworthy and negative impact on ROA. The emphasis was placed on the notion that as a company undergoes growth, funds acquired through debt or equity may be directed towards investment expansion, consequently diminishing the company's profitability.

Need of the study

As shown above, most of the research has been undertaken to analyse the growth of the Indian automobile sector, but still, there is a dearth of studies to analyse the financial performance of the individual company. In this context, the present paper attempts to analyse the financial performance of two leading companies in the passenger and commercial vehicle segment of the Indian automobile industry. It analyses them based on four financial parameters viz., profitability, liquidity, managerial efficiency, and leverage condition for the period of 5 years from 2016-17 to 2020-21.

Objectives of the study

To analyse the financial performance of selected Indian automobile companies.

Scope of the study

The scope of the study is confined to the following two companies:

1) Tata Motors
2) Maruti Suzuki

Research Methodology

Research design

In this section we describe the step-by-step approach towards the accomplishment of this study. This shall include data collection method or source(s), data analysis, etc the study is based on secondary data. The data about the behaviour of liquidity, solvency and profitability position were collected from the balance sheet and profit &loss account of Maruti Suzuki Ltd & Tata Motors Ltd. The necessary data were obtained from the published annual reports.

Nature of the data

The evaluation of the study is based on the secondary data collected from the annual reports. The analysis and recommendations are made on the facts, and diagrams that are given to represent the statistical data for the study of ratios of current assets, current liabilities, net sales, operating profit, capital expenditure and current assets to current liabilities.

Tools applied

To have an interpretation and meaningful analysis of various data collected the following tools are used to study Ratio analysis (Liquidity Ratio, Efficiency or Activity Ratios, Leverage Ratios, Debt-Equity Ratio, Total Debt-Total Assets Ratio, Coverage Ratio, Profitability Ratios, Gross Profit Ratio)

Data collection

Data for this study is from secondary source, which are mainly the published annual reports of the selected companies. In the annual reports, we made use of two statements, i.e., balance sheet and income statement to compute the various ratios. The financial data required for the analysis was taken from www.moneycontrol.com and the companies' websites also.

Period of the study

The period of the study covers five financial years from 2016-2021.

Data analysis and results

The major tool to actualize the purpose of this study is ratio. It involves expressing one set of figures in relation to another set of figure. Such a relationships is necessary in determining how a set of data affects another positively or negatively. The ratios are grouped into four areas: liquidity, efficiency or activity, leverage, and profitability. After the ratios are computed

Ratio analysis

Current ratio = Current Assets-Current liabilities

TATA MOTORS:

Table 1.1. Current Ratio of Tata Motors

YEAR	CURRENT ASSETS	CURRENT LIABILITIES	RATIO
2016-2017	116,119.75	115,629.52	1
2017-2018	135,972.84	143,219.47	0.95
2018-2019	123,431.16	145,457.43	0.85
2019-2020	119,587.25	140,454.05	0.85
2020-2021	146,887.64	157,749.18	0.93

MARUTI SUZUKI:

Table 1.2. Current Ratio of Maruti Suzuki

YEAR	CURRENT ASSETS	CURRENT LIABILITIES	RATIO
2016-2017	8,798.00	13,236.80	1.504523755
2017-2018	7,930.00	15,448.50	1.948108449
2018-2019	12,372.70	14,160.50	1.144495543
2019-2020	8,440.60	11,305.40	1.339407151
2020-2021	18,544.30	16,120.50	0.869296765

Inference: The current ratio indicates the ability of a concern to meet its current obligations as and when they are due for payment. The expected standard current ratio is 2:1. All the financial years of both Tata and Maruti did not meet the expected current ratio resulting in inadequate current assets. Whereas, during the years current ratio of Maruti is found to be higher than Tata except for the financial year 2020-2021.

Liquid Ratio= Quick Assets-Current liabilities

TATA MOTORS

Table 1.3. Liquid ratio of Tata motors

YEAR	QUICK ASSETS	CURRENT LIABILITIES	RATIO
2016-2017	81,034.44	115,629.52	0.700811004
2017-2018	93,835.21	143,219.47	0.6551847315
2018-2019	84,417.43	145,457.43	0.580358322
2019-2020	82,130.37	140,454.05	0.5847490336
2020-2021	110,799.05	157,749.18	0.7023748079

MARUTI SUZUKI

Table 1.4. Liquid Ratio of Maruti Suzuki

YEAR	QUICK ASSETS	CURRENT LIABILITIES	RATIO
2016-2017	5,534.30	13,236.80	0.4180995407

2017-2018	4,769.80	15,448.50	0.3087548953
2018-2019	9,050.10	14,160.50	0.6391087885
2019-2020	5,226.70	11,305.40	0.4623188919
2020-2021	15,495.30	16,120.50	0.9612170838

Inference: Liquid ratios are used to determine the debtor's ability to pay off current debt obligations without raising external debt. The generally accepted quick ratio is 1:1. From the table, both Maruti and Suzuki have failed to attain the standard quick ratio. Over the years they both have maintained the same quick ratio collectively.

CASH POSITION RATIO =

Cash and bank balances + marketable securities Current liabilities

TATA MOTORS

Table 1.5. Cash Position Ratio of Tata Motors

YEAR	CASH EQUIVALENTS	CURRENT LIABILITIES	RATIO
2016-2017	57,674.00	115,629.52	0.4987826638
2017-2018	65,188.52	143,219.47	0.455165209
2018-2019	52,913.69	145,457.43	0.3637744046
2019-2020	45,834.91	140,454.05	0.3263338437
2020-2021	61,220.94	157,749.18	0.388090385

MARUTI SUZUKI

Table 1.6. Cash Position Ratio of Maruti Suzuki

YEAR	CASH EQUIVALENTS	CURRENT LIABILITIES	RATIO
2016-2017	1,228.60	13,236.80	0.09281699504
2017-2018	1,542.40	15,448.50	0.09984140855
2018-2019	2,516.70	14,160.50	0.1777267752
2019-2020	2,023.70	11,305.40	0.1790029543
2020-2021	4,350.00	16,120.50	0.2698427468

Inference: An ideal cash position ratio is 0.75:1. During the study period, neither Tata nor Maruti had a satisfactory cash ratio. The highest-ever cash ratio for Tata and Maruti were 0.45 and 0.27 for the financial year 2017-2018 and 2020-2021. Between them, Tata managed to move past Maruti.

Debt equity ratio= Total long-term debt-Shareholder's fund

TATA MOTORS

Table 1.7. Debt Equity Ratio of Tata Motors

YEAR	LONG TERM DEBT	SHAREHOLDERS FUND	RATIO
2016-2017	70,807.64	58,061.89	1.219520067
2017-2018	78,273.74	95,427.91	0.8202394876
2018-2019	84,163.39	60,179.56	1.398537809
2019-2020	99,994.18	63,078.53	1.585233201
2020-2021	114,949.65	55,246.72	2.080660173

MARUTI SUZUKI

Table 1.8. Debt Equity Ratio of Maruti Suzuki

YEAR	LONG TERM DEBT	SHAREHOLDERS FUND	RATIO
2016-2017	527.7	37,075.10	0.01423327247
2017-2018	638.5	42,559.40	0.01500256113
2018-2019	661.4	47,092.10	0.01404481856
2019-2020	714.5	49,413.00	0.01445975755
2020-2021	492.9	52,500.60	0.009388464132

Inference: The debt-to-equity ratio is a financial ratio indicating the relative proportion of shareholders' equity and debt used to finance a company's assets. the ideal ratio is 0.5:1 for debt-equity. The debt-equity ratio is far less than 0.5:1 during all the years of study for Maruti Suzuki. This indicates that the debt proportion is highly satisfactory and the company is highly solvent to pay off its long-term debts. Meanwhile, the lowest debt-equity ratio for Tata during the study period is 1.4.

Interest coverage ratio = EBIT/Interest

TATA MOTORS

Table 1.9. Interest Coverage Ratio of TataMotors

YEAR	EBIT	INTEREST	RATIO
2016-2017	12,438.24	4,238.01	2.934924646
2017-2018	13,861.68	4,681.79	2.960765007
2018-2019	4,039.01	5,758.60	0.70138749
2019-2020	-465.21	7,243.33	0.06422598446
2020-2021	11,383.91	8,097.17	1.405912189

MARUTI SUZUKI

Table 1.10. Interest Coverage Ratio of Maruti Suzuki

YEAR	EBIT	INTEREST	RATIO
2016-2017	10,043.80	89.4	112.3467562
2017-2018	11,349.40	345.8	32.82070561
2018-2019	10,544.00	75.9	138.9196311
2019-2020	7,118.60	134.2	53.04470939
2020-2021	5,253.80	101.8	51.60903733

Inference: The interest coverage ratio is a debt and profitability ratio used to determine how easily a company can pay interest on its outstanding debt. Generally, an interest coverage ratio of at least two (2) is considered the minimum acceptable amount for a company that has solid, consistent revenues. From the above table and analysis, Maruti has the highest interest coverage ratio in all the years compared to Tata with the highest being 138.92 as it meets the standard ratio. It has a high possibility of paying off their interest. Tata only met the standard ratio in the financial year 2016- 2017 which is 2.93.

GROSS PROFIT RATIO = <u>Gross profit ×100</u>

Net sales

TATA MOTORS

Table 1.11. Gross Profit Ratio of Tata Motors

YEAR	GROSS PROFIT	NET SALES	RATIO
2016-2017	27219.78	269692.52	10.09%
2017-2018	32708.62	291550.47	11.22%

2018-2019	-7780.52	301938.41	-2.58%
2019-2020	10845.45	261067.97	4.15%
2020-2021	13072.43	249794.75	5.23%

MARUTI SUZUKI

Table 1.12. Gross Profit Ratio of Maruti Suzuki

YEAR	GROSS PROFIT	NET SALES	RATIO
2016-2017	12731.1	68085	18.70%
2017-2018	13926.7	79809.4	17.45%
2018-2019	13644.6	86068.5	15.85%
2019-2020	10631.2	75660	14.05%
2020-2021	8355.1	70372	11.87%

Inference: The gross profit ratio (GP ratio) is a financial ratio that measures the performance and efficiency of a business. The above table and figure show almost a constant but low decline in the gross profit of Maruti Suzuki, the highest being in the year 2016-2017 of 18.7. Tata Motors has the lowest gross profit. During the financial year 2018-2019, it had a gross loss of 2.58.

Conclusion

Ratio analysis serves as a crucial tool for evaluating the financial health of organizations. Employing various tools and techniques, this study assesses the financial performance of selected companies, specifically Maruti and Tata. The analysis reveals that Maruti outperforms Tata in terms of Gross Profit Ratio, indicating a higher profit margin after cost deductions. Maruti also boasts a lower Debt-to- debt-to-equity ratio compared to Tata, making it a more reliable option for investors.

Examining Earnings per Share, Maruti exhibits minimal fluctuations, instilling confidence among investors. In contrast, Tata experiences significant fluctuations, potentially raising concerns about its stability in the eyes of investors. Dividend distribution, a key aspect for shareholders, favours Maruti, which consistently provides dividends, whereas Tata has not distributed any dividends in any year, potentially diminishing its appeal to investors seeking dividend income.

In pursuit of net profits, Maruti faces a declining trend annually, while Tata demonstrates a mixed performance, with improvement in the initial three years, a pandemic-induced decline in the fourth year, and subsequent recovery in the fifth year, showcasing Tata's efforts to enhance its net profits.

A statistical analysis highlights a negative correlation between Maruti's Gross Profit Ratio and Debt to debt-to-equity ratio, portraying a favourable scenario for the organization. Conversely, Tata exhibits a highly positive correlation between the Gross Profit Ratio and Earnings per Share, potentially attracting more investors.

Considering key performance indicators collectively, Maruti Suzuki emerges as the stronger performer when compared to Tata. The latter is advised to enhance all key ratios and bolster net profits, which lag behind Maruti. In conclusion, this study establishes that Maruti Suzuki outshines Tata, making it a more appealing choice for investors.

The study therefore concludes that ratio is a vital tool in assessing performance of a firm by revealing its liquidity, efficient management of resources, exposure to risk and profitability potential. These variables will reveal strengths, weaknesses, opportunities, and threats associated with a firm

Suggestions

The authors suggest the followings:

Ratios should be applied with ultimate caution, because of inherent limitations.

A few ratios may not be adequate to enable us take far reaching investing and credit decision. Many ratios need to be computed and analysed before a decision is made.Sources of data on the internet should be authenticated directly from the company concerned where possible. Watch out for 'noise' in the capital market that almost all the times influence trading

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