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Debt-Equity Analysis Of TATA MOTORS Ltd.

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Abstract

This study aims to analyze the financing behavior of a selected private company. The sample company selected for this research is TATA MOTORS Ltd. and the study period is of five years (2018- 2022). Long term solvency ratios indicate a firm's ability to meet the fixed interest and costs and repayment schedules associated with its long term borrowings. This research work is an attempt to analyze the relation between external and internal equity and its impact on the performance of the company under study. It provides insights into two widely used financial tools i.e., ratio analysis. The objective of this paper is to analyze the impact of debt and equity capital over the performance of TATA MOTORS Ltd and to help the reader understand how these tools should be used to analyze the solvency position of a firm. To demonstrate the process of Debt-Equity analysis of TATA MOTORS Limited's various ratios calculated from balance sheet and income statements are analyzed in this paper. Regarding the main result it has been found that the capital structure of the company is equally balanced by the outsiders and owner's capital.

Keywords: Debt-Equity, Proprietary, Solvency, Liquidity, Capital gearing

INTRODUCTION

Fundamentally, finance for businesses falls into two separate categories, debt and equity. Debt, quite simply, is a cash advance of money that will have to be paid back, normally with an interest figure on top. Business equity, on the other hand, is financing that comes from investors and does not necessarily have to be repaid, although investors will normally expect a degree of return for their investment. Debt vs. equity financing is one of the most important decisions facing managers who need capital to fund their business operations. Debt and equity are the two main sources of capital available to businesses, and each offers both advantages and disadvantages. "Absolutely nothing is more important to a new business than raising capital.

REVIEW OF LITERATURE

Titman et al. (1988) in their research work analyzed "The determinants of capital structure choice" by using 469 samples from manufacturing firms of the US over a period of 1974-1982. The study examined a set of capital structure theories and their empirical implication with regard to their different types of instruments and used a factor analytic technique for estimating the impact of unobservable attributes on the choice of corporate debt ratios. Transaction costs were found to be an important determinant of capital structure choice. The long and the short term debt ratios were shown to be negatively related to the firm size. The study revealed that the various leverages related costs and benefits were not particularly significant in deciding the level of leverage.

Drobetz and Roger (2000) had analyzed the important determinants of capital structure of the high tech and the traditional corporations. Twenty one traditional Taiwan industries were considered for the year 1996 to 1999 to test the relationship between capital structure and its determinants. It was concluded that other than growth opportunities, variables which were relevant for explaining the capital structure in the high tech corporations were also relevant in the traditional corporations. The more profitable the firm, the lower was the debt ratio. The result suggested that external financing was costly and therefore was avoided by firms. Both the industries had the same proportion of debt financing. But the determinants of capital structure of the high tech corporations were different from that of the traditional corporations.

Song (2005) had studied the capital structure determinants of Swedish firms based on a panel data set from 1992 to 2000 comprising about 6000 companies. It examined the impact of different determinants on three leverage measures. All the three forms of debt ratios were significantly related to the tangibility, profitability, size, and income variability but, the non-debt tax shield was only related to short and long term forms of debt. The findings suggested that the future analysis should be based not only on long term or total debt ratios but also on short term debt ratios as well.

Kaur (1991) had studied size, growth and profitability of firms in India covering 235 firms for the period from 1970-1971 to 1989-1999. Growth patterns of the firms showed that the majority of the firms recorded growth rate from 10 percent to 20 percent. The analysis also showed that there was no systematic tendency for average profitability to increase or decrease as the size of the firm changed.

OBJECTIVES OF THE STUDY

- * To analyze the Impact of debt and equity capital over the performance of TATA MOTORS Ltd.
- * To provide suggestive measures on the basis of findings for further betterment of the company under study.

RESEARCH METHODOLOGY

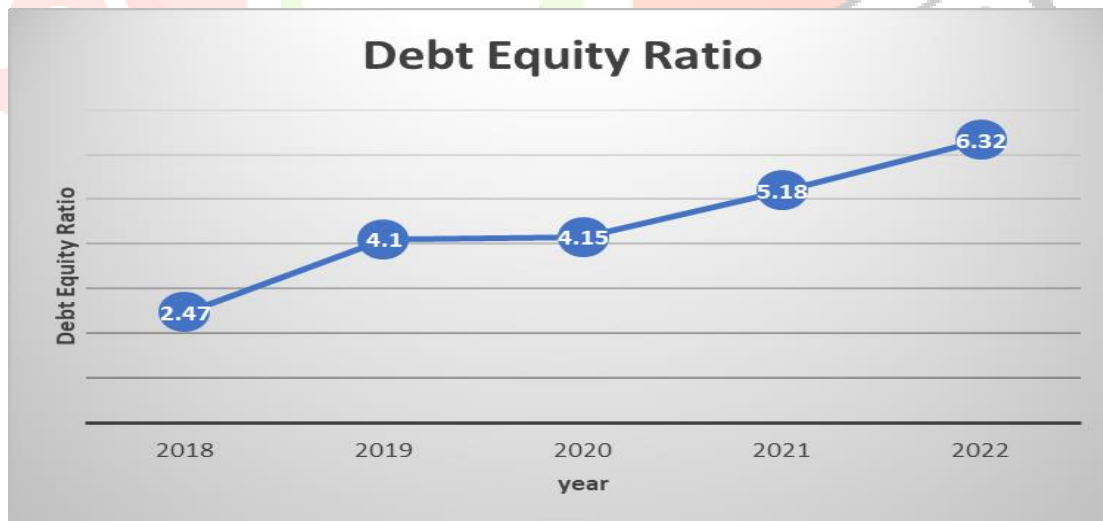
The present research work is analytical in nature and is entirely based on secondary data. The data has been collected from various secondary sources such as annual reports of the company, research papers, articles, dissertations, newspapers, magazines and internet as well. Various statistical tools like student's t test have also been utilized for testing hypotheses.

SOLVENCY ANALYSIS OF TATA MOTORS.

Debt-equity ratio: Debt-to-Equity ratio indicates the relationship between the external equities or outsiders' funds and the internal equities or shareholders funds

Debt Equity ratio	Outsiders fund/Shareholders fund
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year	outsiders fund	shareholders fund	Ratio
2018	235,397.54	95427.91	2.47
2019	246,491.91	60179.56	4.10
2020	258,229.17	62211.03	4.15
2021	286,305.59	55246.72	5.18
2022	281,787.63	44554.85	6.32
Mean	261642.37	63524.014	4.44



Interpretation:

Table 1 indicates the level of firmness of long-lived finances of the company. It represents the association between the portion of assets provided by the stockholders and the portion of assets provided by creditors (debt capital). During the study period it has been analyzed that the company has used more capital as compared to debt. A ratio of 2.47, 4.10, 4.15, 5.18 & 6.32 has been observed in 2018, 2019, 2020, 2021 & 2022 respectively which means that more proportion of equity capital has been used in 2018 as compared to other years. A ratio

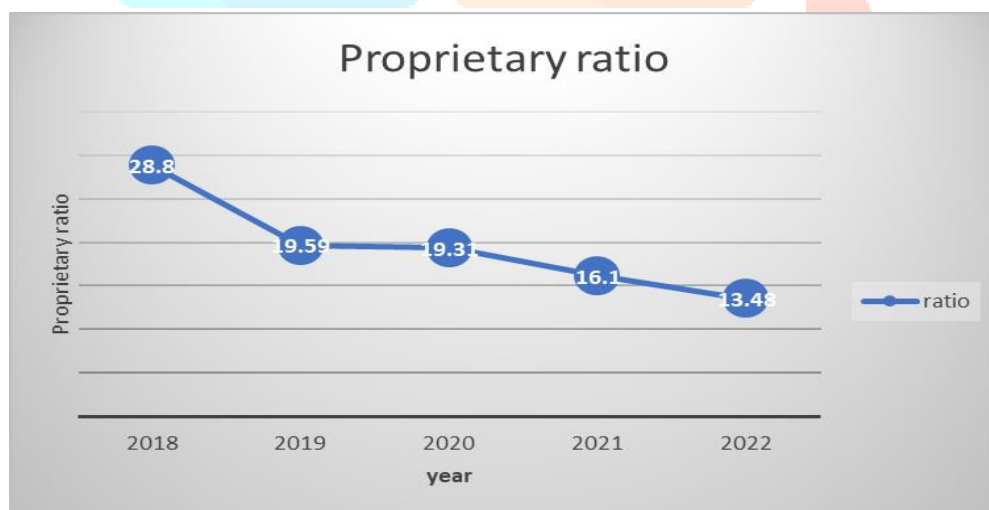
of 2.47 or 2.47: 1 means that stockholders contribute double to the assets of the business as compared to debt capital.

Proprietary ratio: Proprietary ratio refers to a ratio which helps the creditors of the company in seeing that their capital or loans which the creditors have given to the company are safe.

Proprietary ratio can be calculated as follows: – Proprietors funds/Total Assets

Proprietary ratio	$(\text{Stakeholders fund}/\text{Total asset}) \times 100$
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Year	Stakeholders fund	Total asset	Proprietary ratio
2018	95427.91	331,350.51	28.80
2019	60179.56	307,194.53	19.59
2020	62211.03	322,121.26	19.31
2021	55246.72	343,125.80	16.10
2022	44554.85	330,619.93	13.48
Mean	63524.014	326882.406	19.45596461



Interpretation

Table 2 shows the contribution of stockholders' in total capital of the company. It represents the share of shareholders' funds in total assets of the company. A consistent share of stockholders fund has been contributed in total capital (Total assets) during the study period i.e. 28.80%, 19.59%, 19.31%, 16.10 and 13.48% in 2018, 2019, 2020, 2021 and 2022 respectively. In 2022 the figure has dropped down to 13.48% which indicates that a company is not in a good position and provides disbelief to creditors.

Solvency ratio: The solvency ratio measures the size of a company's after-tax income; excluding non-cash depreciation expenses, as compared to the firm's total debt obligations. It provides a measurement of how likely a company will be to continue meeting its debt obligations.

Solvency ratio:	$(\text{Total liabilities to outsiders}/\text{Total assets}) * 100$
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Table 3 Solvency ratio:Total liabilities to outsiders to total assets

year	Total liabilities to outsiders	Total assets	Solvency Ratio
2018	235397.54	331,350.51	71.04
2019	246491.91	307,194.53	80.24
2020	258229.17	322,121.26	80.17
2021	286305.59	343,125.80	83.44
2022	281787.63	330,619.93	85.23
Mean	261642.368	326,882.41	80.02



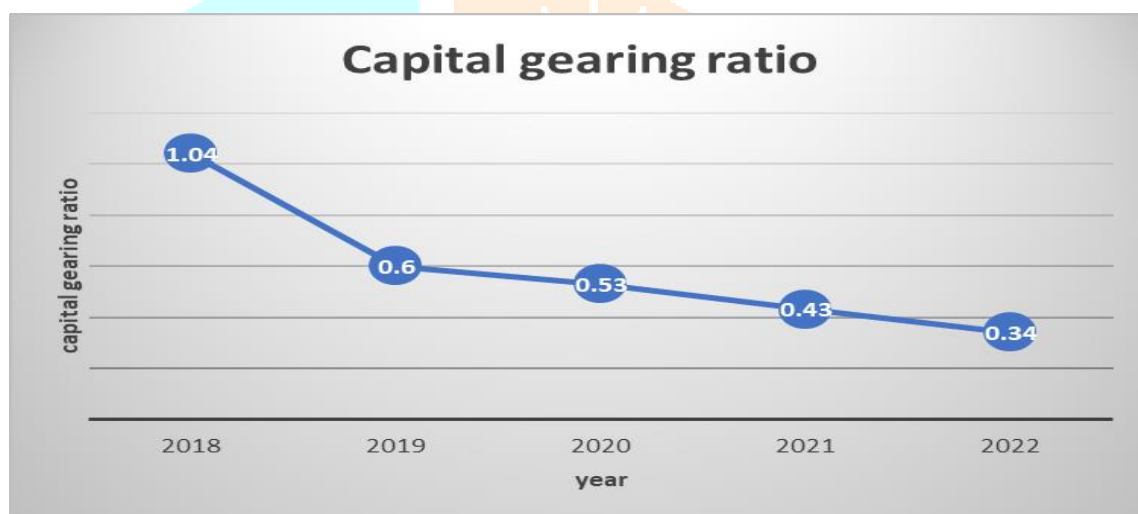
Interpretation: Table 3 depicts the relationship between total liabilities to outsiders and total assets. It shows the contribution of outsiders in total capital of the company. As per analysis the contribution by the outsiders has been consistently about 80% from 2019 to 2022 but in 2018 it is down 70%. which means that the amount of outsiders capital has decreased during the first year, after that it has consistently increased in the coming years.

Capital Gearing Ratio: Capital gearing ratio measures the percentage of capital employed that is financed by debt and long term financing. The higher the gearing, the higher the dependence on borrowing and long term financing. Whereas, the lower the gearing ratio, the higher the dependence on equity financing.

Capital Gearing Ratio	$\frac{\text{Equity share capital + Reserve and surplus/ Preference capital + long term debt}}{\text{Preference capital + long term debt}}$
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Table 4 Capital Gearing Ratio: Statement of shareholders fund to long term debt

year	Equity share capital +reserve and surplus	Preference capital +Long term debt	Capital Gearing ratio
2018	95427.91	92,178.07	1.04
2019	60179.56	101,034.48	0.60
2020	62211.03	117,775.12	0.53
2021	55246.72	128,556.41	0.43
2022	44554.85	131,104.82	0.34
Mean	63524.014	114,129.78	0.59



Interpretation

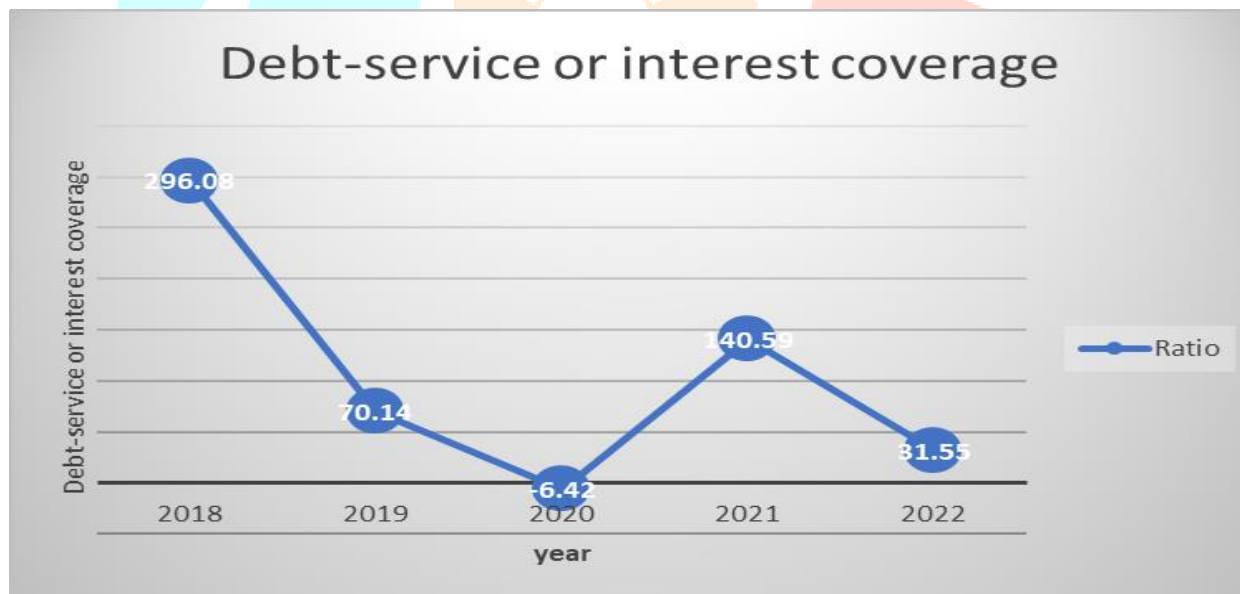
Table 4 represents the measure of capital structure analysis and financial strength of the company and is of great importance for actual and potential investors. While analyzing the table it has been found that the company under study has low geared capital structure. In 2019, 2020, 2021 and 2022 the ratio has been below 1, which means that equity capital used by the company is less than that of outsiders but in 2018 the ratio is 1.04. This shows that the company has decreased the proportion of outsider's capital.

Debt-service or interest coverage: This ratio relates the fixed interest charges to the income earned by the business. It indicates whether the business has earned sufficient profits to pay periodically the interest charges.

Debt-service or interest coverage	Net profit (before interest & tax)/Fixed interest *100
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Table 5 Debt-service or interest coverage: Statement of net profit to fixed interest

year	net profit (before interest & tax)	fixed interest	Ratio
2018	13861.68	4,681.79	296.08
2019	4039.01	5,758.60	70.14
2020	-465.21	7,243.33	-6.42
2021	11383.91	8,097.17	140.59
2022	2938.03	9,311.86	31.55
Mean	6351.484	7,018.55	106.39



Interpretation:

Table 5 reflects the relationship between net profits to fixed interest expenses, Times interest earned ratio is very important from the creditors view point. According to analysis the ratio in 2018 and 201 has been 296.08 and 140.59 times respectively. In 2019, 2020 and 2022 the ratio has dropped down to 70.4 , -6.42 and 31.55 times respectively. It means that the interest expenses of the company are 106.39 times at an average for the study period covered by its net operating profit (profit before interest and tax).

FINDINGS

* Regarding debt–equity ratio it has been found that the capital structure of the company is surplus by owners capital and outsiders funds. In 2018 the share of outsiders fund is rs. 235397.54 and 95427.91 is owners fund i.e., 2.47 :1. In 2019 and 2020 the ratios are 4.10:1, 4.15:1 respectively. In 2021 and 2022 the company has decreased the amount of internal equity as compared to external equity and the ratio for that two years is 5.18 and 6.32 respectively.

* With reference to shareholders fund ratio (Proprietary ratio) the figures have remained quite consistent during the study period. The contribution of owners in the total assets of the company from 2018- 2022 has been down to 13.48%. In this year the amount of total assets has increased to a larger amount than that of investment from the shareholders.

* While analyzing the solvency ratios, the trend has been increasing during the study period which means that with the increase in total liabilities to outsiders the amount of total assets has also increased . The ratio has increased 85.23% from 71.04 in 2022, 2018 respectively.

* Regarding capital gearing ratio the company is found to be low geared during the study period which shows that the amount of capital invested by shareholders is more than that capital borrowed from outsiders. In 2021 a satisfactory increase in the long term debt has been observed.

* While analyzing interest coverage ratio figures in 2018 and 2021 has been 296.08 and 140.59 times respectively in 2019, 2020 and 2022 the ratio has dropped down to 70.14 , -6.42 and 31.55 times respectively. It means that the interest expenses of the company are 106.39 times at an average for the study period covered by its net operating profit (profit before interest and tax).

SUGGESTIONS

* Generally speaking, a low ratio (Debt being low in comparison to shareholders fund) is considered favorable from long term creditors point of view because a high proportion of owner's funds provide a larger margin of safety for them. While considering this fact the company should maintain the balance as it has maintained during the study period this will help in motivating more and more creditors to finance the company and at the same time motivate its shareholders by increasing the amount of low cost funds to magnify their earnings by adopting a sound financial policy.

* Equity ratios of the company are found unsatisfactory during the study periods because higher the share of shareholders in the total capital of the company better is the long term solvency position of the company. In order to overcome this problem the company needs to increase the amount of shareholders found but at the same time the amount of capital invested in assets should be maintained as well.

* Solvency ratio is the variant of Equity ratio the larger the equity ratio smaller is the solvency ratio. Solvency ratio is inversely proportional to equity ratio any increase in equity ratio will result in the decrease in the solvency ratio and vice versa ,because lower the ratio of total liabilities to total assets , more satisfactory or stable is the long term solvency position of a firm.

* Regarding capital gearing ratio, the company is dealing with low capital gear during the study period. Gearing must be kept in such a way so that the company is able to maintain a steady rate of dividend.

* While analyzing the interest coverage ratio the figures have been found unsatisfactory during 2020 and also the ratio has dropped down in 2019 and 2021 which is not a good sign from creditors point of view. The recommendation in this regard for the company is to use the low interest debt that will be helpful in increasing this ratio.

CONCLUSION

A properly conducted solvency analysis can provide positive assurance that after giving consideration to the effect of the subject transactions, the company under study meets the primary criteria for solvency. After analysis it can be concluded that solvency analysis is one of the useful as well as effective tools for identifying

the long run functioning of the company. This paper is an outcome of the efforts made by the researcher in order to find out the financial policy of the company under study as well as its implementation. The study suggests that the company should increase the proportion of outsider's equity in order to avail the benefits of low cost debt.

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