

“A Study on Efficiency of Capital Structure”: Evidence from Bajaj Auto Limited

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Abstract--- Capital structure is that structure at the level of debt and equity proportion where the market value per share is maximum and the cost of capital is minimum. Planning the capital structure is one of the most difficult areas of financial decision making because of the inter-relationship among components of the capital structure and its connected to risk-return value of the enterprise. Business enterprise depends either debt or equity for their sources of fund but, rational decision only will help them to undergo the seasonable choice to select a capital structure in long run. Otherwise the debt burden and fiscal difficulties will trouble the organization. Since automobile industry is a core industry it needs huge investment for their working capital and related fund requirements. Therefore, the researcher made an attempt to analyze the financial performance and automobile based on their capital structure. Study conducted based on secondary data for the period of five years from 2015-2019 to interpret the financial position of the company.

Keywords--- Capital structure, Efficiency, Debt and equity.

I. INTRODUCTION

Automobile industry is the business which undertakes the producing and selling of self-powered vehicles. Automobile industries were first known as automotive industries which is derived from Greek word where autos Means “self” and motives means motion together referred as self -powered vehicles. The automobile industry began in 1860’s which started manufactured horseless carriage, for many decades USA led the world in total automobile production and from 2009 China took the top spot in automobile production and have been the first till date having 24.81 million units manufactured followed by Japan, Germany and India being in 4th position having 3.95 units manufactured. In India, Tata motors holds the 1st place in manufacturing automobiles and Bajaj Auto Ltd being the 5th manufacturing industry followed by Mahindra, MARUTI Suzuki and Hero Moto Cap Ltd. Bajaj auto ltd is a global 2 and 3 wheels manufacturing company based in India at Pune which was established in the year 1940. By JAMNALAL Bajaj having GDP growth rate at 8% and domestic market sales of 2,05,721 motor cycle during May 2019 with the growth rate of 7%. The net sales Is 24,700 crore and surplus cash and cash equivalents of 15,542 crores with the total operating income of 25,424 crores, it has been a leading automobile sector in India and over the globe being worlds 3rd largest manufacturing of motor cycle and 2nd largest in India standing next to china and Japan in terms of sales of two wheelers respectively.

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II. COMPANY PROFILE

Bajaj auto ltd company is an Indian global two wheelers company. It was established in November 29, 1945 at Pune, Maharashtra, India by Jamnalal Bajaj its head quarter situated in Pune. The company has its plant in Chakan (Pune) Waluj near Aurangabad and Pantnagar at Akurdi (Pune). The main products are motor-cycles, three wheeler vehicles and cars. Its production output is 6333000units. The total assets of the company as per 2019 is 28834 crore and total equity is 23233 crores. It's the world's third largest manufacturer of motorcycles and second largest in India. Baja autos equity shares are listed on Bombay stock exchange where its constitute of the BSE SENSEX index and the National stock exchange of India, where it is the constituent of the CNX nifty.

III. LITERATURE REVIEW

Joshwa Abor (2005) has conducted research on "The effective of capital structure on profitability": an Empherical analysis of listed firm in Ghana with an aims to investigate the relationship between capital structure and profitability of listed firms from Ghana stock exchange. Recreation analysis used for estimation of functions regarding the return on equity as a statistical tool to analyze capital structure it was found that there was the high degree positive relationship between the ration of short term debt and total asset and return on equity. Even it was found that there is also a negative relationship between the ratio of long term debt to total assets and return on equity and this research suggested that profitability firm depends more on debt as their main finance option.

Anup choudary (2010) has conducted a study on the impact of capital structure on Firms value evidence from Bangladesh. This study aims to analyze the impact of debt equity ratio on firm value in their capital structure theory. This was a descriptive study. It was found that there exist a strong positive co-related association which is evident from the empirical findings when stratified by industry.

Dr. Assumptah W. Kagiri (2013) has conducted research on" effect of capital structure on financial performance of banking institutions listed in Nairobi Securities exchange" This study aims to determine the effects of capital structure to the company's financial performance of listed banking institutions in Nairobi Security exchange. This paper is a descriptive study it was found that there was positive relation between variables and the study also revealed that financial performance of commercial banks listed at the NSE could be explained by capital structure aspects of custody during the research tenure.

Perera H.A.P.K. (2015) has conducted research on the Effect of macro-economic conditions on corporate capital structure: evidence from manufacturing firms listed in Colombo stock exchange. This study aims to examine the effects of macro-economic conditions on capital structure decision of manufacturing firms listed in Colombo stock exchange. This paper was descriptive in nature and it has been found that banking sector has a significant effect in determining the capital structure decision of the organization. It was also found that growth rate and inflation have significant influence on capital structure decision of banks.

Samangi Bandaranayak (2014) has conducted a research on the Impact of external environmental condition on corporative capital structure: Evidence from hotels and travel sector in Sri Lanka. The study aims at investigate the influence of external environment, this paper was descriptive in nature it has been found that, there is an overall institutional based on macroeconomic condition that significantly influences the capital structure decision of the

firm and also emphasizes the role of prevailing institutional and macro-economic conditions that influences in determining the capital structure decision during the study period.

Sri Hartoya (2015) has conducted the research on the Effects of financial performance to capital structure of Indonesian Plantation Company in 2010-2015. This study aims to determine Indonesian plantation company which finances its operation from internal and external funding which future effects capital structure decision, literature analysis has been used to determine the capital structure decision. The study found that there exists a significance effect on capital structure, company size, tangibility; company growth and it also negative impact on capital structure against selected variables.

Juan Shang (2015) has conducted research on the finance governance and dynamic capital structure This study aims to describe the influence of finance governance on the adjustment speeds of capital structure under the below and above target debt level based on the date of listed companies for the period of 2010-2015. This study was measured by finance governance index from the report of finance governance index of China's listed companies. It has been found that finance governance does not significantly co related with upward adjustment speed and this paper not only proves the disciplining effect of debt which influences on dynamic adjustment of capital structure.

Tubagus Maulana Hasanudin (2015) has conducted the research on The behaviour of capital structure and its impact on financial performance: Empherical study from Indonesian listed mining sector. This study aims to investigate the behaviour of capital structure on mining sector by evaluating the impact on capital structure based on financial performance This paper was descriptive in nature it has been found that the behaviour of capital structure on mining sector generally applies below leverage because of the total debt shows the positive trend of capital structure.

Jasnoor Kaur (2018) has conducted the research on the "Determination of factors effecting capital structure of micro, medium and small enterprises in India. The study aims to investigate the critical factors that affect the capital structure of micro, small and medium enterprises in India regression analysis used as statistical tool to determine the factors effecting the capital structure decisions of MSME'S. It has been found that the firm size as been emerged as major determinant that affects the capital structure of micro, small and medium enterprises under this case study.

TAIWO ADEWALE MURITALA (2018) has conducted a study on an Empirical analysis of capital structure on firm's performance in Nigeria This study has examined the optimum level of capital structure through a firm can increase its financial performance using its annual data. This paper was a descriptive in nature. It has been found that the study recommends that asset tangibility should be a driven factor to capital structure because firms with more tangible assets are less likely to be financially signified

IV. METHODOLOGY

The present study has been conducted based on the secondary data from annual report for the period of five years from 2015-2019. The appropriate statistical tools are used especially T (one-way t test) employed to test the significant and prove the selected hypothesis regression analysis has been used to measure the association between capital structure and efficiency of the firm.

Objective of the Study

- 1) To analyze the impact of capital structure on the financial performance of the Bajaj automobile company.

Hypothesis

H0: Debt interest does not have significant influence on financial performance of the company.

V. CONCEPTUAL FRAMEWORK

Ratios

“CURRENT RATIO”: “CURRENT ASSETS/CURRENT LIABILITIES”
“QUICK RATIO”: “CURRENT ASSETS-STOCK/CURRENT LIABILITIES”
“CASH TO CURRENT LIABILITY”: “CASH&CASH EQUIPMENTS +MARKETABLE SECURITIES/TOTAL CURRENT LIABILITIES”
“DEBTORS TURN OVER RATIO”: “NET SALES/AVERAGE NET RECEIVABLES”
“CREDITORS TURN OVER RATIO”: “NET PROFIT/AVERAGE TRADE CREDITORS”
“LONG TERM BORROWING”: “ LONG TERM DEBTS/TOTAL ASSETS”
“OPERATING CASH FLOW/CURRENT LIABILITY”: “CASH FLOW FROM OPERATIONS /CURRENT LIABILITY “
“WORKING CAPITAL TURN OVER RATIO”: “COST OF SALES/NET WORKING CAPITAL”
“STOCK TURN OVER RATIO”: “COST OF GOODS SOLD/AVERAGE INVENTORY”
“OPERATING LEVERAGE”: “CONTRIBUTION/EBIT”

Table 1.1: Summary of Statistics: Ratios

	Ratios	Bajaj automobile				
		2015	2016	2017	2018	2019
1	Current ratio	2.13	1.7	2.94	2.25	1.45
2	Quick ratio	1.95	1.44	2.77	2.06	1.25
3	Cash to current liability	0.6	0.57	0.34	0.37	0.39
4	Debtors Turnover ratio	29.09	32.68	27.15	20.52	14.59
5	Creditors Turnover ratio	0.59	0.66	0.64	0.51	0.35
6	Long term borrowing	0.024	0.025	0.026	0.024	0.025
7	Operating cash flow/current liability	0.47	1.32	1.01	1.05	0.51
8	Working capital Turnover ratio	4.34	12.01	3.62	4.88	13.44
9	Stock Turnover ratio	1.34	1.78	1.26	1.88	1.59
10	Operating leverage	2.02	1.71	1.68	1.52	1.4

Source: Computed

VI. FINDINGS OF THE STUDY

Current Ratio

The Bajaj automobile sector has shown an increase in the year 2015 and 2017 and it has been decreased in the year 2016, 2018 and 2019. The maximum value (2.94) has been found in the year 2017 and the minimum value (1.7)

has been found in the year 2016.

Quick Ratio

The Quick ratio of The Bajaj automobile sector the quick ratio has shown a varied trend. Its increase in the year 2015 and 2017 and it has been decreased in the year 2016 2018 and 2019. The maximum value (2.77) has been found in the year 2017 and the minimum value (1.25) has been found in the year 2019.

Cash to Current Liabilty

The Bajaj automobile sector has shown an increase in the year 2015 2018 and the 2019 and it has been decreased in the year 2016 and 2017. The maximum value (0.6) has been found in the year 2015 and the minimum value (0.34) has been found in the year 2017.

Debtors Turnover Ratio

In the Bajaj automobile sector, the debtor's turnover ratio has shown a varied trend. Its increased in the year 2016 and it has been decreased in the year 2015 2017 2018 and 2019. The maximum value (32.68) has been found in the year 2016 and the minimum value (14.59) has been found in the year 2019.

Creditors Turnover Ratio

The Bajaj automobile sector has shown an increase in the year 2016 and it has been decreased in the year 2015, 2017, 2018 and 2019. The maximum value (0.66) has been found in the year 2016 and the minimum value (0.35) has been found in the year 2019.

Long Term Borrowings

In the Bajaj automobile sector, the long term borrowings has shown a varied trend. Its increased in the year 2016, 2017 and 2019 and it has been decreased in the year 2015 and 2018. The maximum value (0.026) has been found in the year 2017 and the minimum value (0.24) has been found in the year 2015 and 2018.

Operating Cashflow

The Bajaj automobile sector has shown an increase in the year 2016 and 2018. it has been decreased in the year 2015 2017 and 2019. The maximum value (1.32) has been found in the year 2016 and the minimum value (0.47) has been found in the year 2015.

Working Capital Turnover Ratio

In the Bajaj automobile sector, the working capital turnover ratio has shown a varied trend. Its increased in the year 2016, 2018 and 2019 and it has been decreased in the year 2015 and 2017. The maximum value (13.44) has

been found in the year 2019 and the minimum value (3.62) has been found in the year 2017

Stock Turnover Ratio

The Bajaj automobile sector has shown an increase in the year 2016 and 2018. It has been decreased in the year 2015 2017 and 2019. The maximum value (1.88) has been found in the year 2018 and the minimum value (1.26) has been found in the year 2017.

Operating Leverage

In the Bajaj automobile sector, the operating leverage has shown a varied trend. Its increased in the year 2015 and it has been decreased in the year 2016, 2017, 2018 and 2019. The maximum value (2.02) has been found in the year 2015 and the minimum value (1.4) has been found in the year 2019.

Table 1.2: Bajaj Auto Limited- Impact on Capital Structure

Dependent variables	Constant	Long term borrowings	T value	R value	R square	Sig
Current ratio	2.094	0.341	8.178	0.341	0.16	**
Quick ratio	1.894	0.328	7.111	0.328	0.108	**
Cash to current liability	0.454	0.433	8.364	0.433	0.188	**
Debtors turnover ratio	24.806	0.097	7.681	0.097	0.009	*
Creditors turnover ratio	0.550	0.214	9.769	0.214	0.046	*
Operating cash flow	0.872	0.293	5.287	0.293	0.086	*
Working capital turnover ratio	7.658	0.132	3.663	0.132	0.017	*
Stock turnover ratio	1.570	0.433	13.047	0.433	0.188	*
Operating leverage ratio	1.694	0.011	24.161	0.011	0.000	NS
Interest coverage ratio	3084.140	0.288	3.541	0.288	0.83	**

Source: Computed

The regression co efficient of long-term Borrowings have positive effects on CR, QR, Cash to CL, DTO, CTO, OCF, WCT, Stock turnover ratio, Operating Leverage and Interest coverage ratio. An increase in long-term borrowing results in an increase in the above-mentioned ratios. Long term borrowing has not shown any negative effect on any ratios.

The multiple correlation coefficients have been found to determine the degree of relationship between the set of Independent variables taken together and the dependent variable taken individually. The correlation coefficients of Cash to CL and Stock turnover ratio (0.433) have a good correlation, CR (0.341), QR (0.328), Operating cash flow (0.293) and Interest coverage ratio of (0.288) have moderate correlation and creditor turnover ratio (0.214), WCTO (0.132), DTR (0.097) and Operating leverage ratio of (0.011) have poor correlation between the dependent and Independent variable

The R Square value explains the percentage variation in dependent variable by the set of Independent variables. The percentage variation in QR, Cash to CL, Stock turnover Ratio have been 10% and above. For the remaining variables the variations have been below 10%.

To conclude, it has been found that automobile sector has been employing long term debt in financing its current assets. The firm have to change their collection policies, so that the dependency on debt can be avoided.

Table 1.3: Bajaj Auto Limited- Impact on Capital Structure

Dependent variables	Independent variables		Correlation	T value	Sig
	Constant	Interest coverage ratio			
Current ratio	2.094	0.219	1	8.178	**
Quick ratio	1.894	0.180	0.999	7.111	**
Cash to current liability	0.454	0.196	-0.391	8.364	**
Debtors turnover ratio	24.806	0.354	0.299	7.681	**
Creditors turnover ratio	0.550	0.498	0.544	9.769	**
Long term borrowings	0.024	0.288	0.341	66.281	**
Operating cash flow	0.872	0.990	0.221	5.287	**
Working capital turnover ratio	7.658	0.028	-0.879	3.663	**
Stock turnover ratio	1.570	0.537	-0.516	13.047	**
Operating leverage ratio	1.694	0.074	0.439	24.161	**

There has been high correlation between Interest coverage ratio and operating cash flow and stock turnover ratio and creditors turnover ratio. It has been found that DTR, LTB, CR, Cash to CL have moderate correlation with IC ratio. The correlation between QR, WCTO and operating leverage has been poor and there is no negative correlation on any variables.

VII. CONCLUSION

In this research, it has been viewed that a sufficiently high proportion of equity is maintained in its capital structure because it should enable it same freedom of action in the matter of retained earnings for its self-financed projects for financing a part of its working capital provided it is in the favourable position of making profit. Proper debt-equity ratio of the Bajaj automobiles under concentration is raised soon or later.

The initial cost of a project has the effect of increasing the fixed cost of operation through capitalisation of interest during consideration.

If a certain range of debt-equity ratio is adopted for enterprise in a company, it can result in fixing concessional rate of interest return on the capital mix. It can be excluded that the significance of the debt-equity ratio is limited, it will remain useful indicator to assess the efficiency of an organisation based on capital structure of the firm.

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