

CHAPTER V
Findings and Conclusion

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This chapter gives detailed summary of findings, suggestions for capital structure strategy for selected Indian auto companies, conclusion of research and discusses scope for further studies in capital structure area particularly in Indian automobile industry.

Major findings on debt equity ratio

- 1) The debt equity ratio has no particular pattern observed in selected auto companies. The average debt equity ratio differs from each other in all companies and it is almost nil in some cases.

Table No 5.1- Average debt equity ratio in selected auto companies

Name of compnay Debt equity ratio	Average secured debt equity ratio	Average unsecured debt equity ratio	Average total debt equity ratio
Tata Motors Ltd.	0.36	0.39	0.75
Ashok Leyland Ltd.	0.29	0.32	0.60
Mahindra and Mahindra Ltd.	0.27	0.29	0.56
Eicher Motors Ltd.	0.31	0.07	0.38
Swaraj Mazda Ltd.	0.43	0.76	1.2
Maruti Suzuki India Ltd.	0.06	0.07	0.13
Hero Honda Motors Ltd.	0.00	0.10	0.10
Bajaj Auto Ltd	0.01	0.34	0.35
TVS Motors Ltd	0.44	0.19	0.63

- 2) It is observed that Tata motors Ltd. have used combination of secured and unsecured debt in financing and average secured debt equity ratio is 0.36 , average unsecured debt equity ratio is 0.39 and average total debt equity ratio is 0.75.
- 3) The secured debt equity ratio analysis of Ashok Leyland indicates declining trend in secured debt equity ratio and average secured debt equity ratio is 0.29. But use of unsecured debt has increased during study period and the same is found 0.32 during study

period, it indicates that Ashok Leyland replaced secured debt by unsecured debt. Average total debt equity ratio has found 0.60.

- 4) From 2001 to 2010 sharp declining trend is observed in secured debt equity ratio and average secured debt equity ratio is 0.27 is observed during study period in Mahindra and Mahindra Ltd. Increasing trend is observed in unsecured debt equity ratio and average unsecured debt equity ratio is 0.29. Average total debt equity ratio analysis indicates that 50% of finances are provided by debt as average total debt equity ratio is 0.56.
- 5) In case of Eicher Motors Ltd., unsecured debt equity ratio has found stable and revolved between 0.01 to 0.20 during study period. But high volatility has observed in secured debt equity ratio as the same has declined from 0.87 in 2004 to 0.03 in 2010. Total debt equity ratio analysis follows same pattern as secured debt equity ratio. The debt equity analysis indicates that, Eicher Motors Ltd. is relied on secured debt finance compare to unsecured debt. The reason may be secured debt finance is less costly compare to unsecured debt.
- 6) In Swaraj Mazda Ltd., it is observed that there is no particular pattern in secured debt equity ratio, unsecured debt equity ratio and total debt equity ratio and all three ratios are found highly volatile. During study period in 6 years it is found that, total debt have crossed the equity base as total debt equity ratio is found 1.78, 2.05, 1.71, 1.45, 1.52, 2.28 during financial year 2001,2002,2006,2007,2008,2009 respectively. This trend indicates heavy reliance of company on debt in fund raising. The average secured debt equity ratio is 0.43, average unsecured debt equity ratio is 0.76, average total debt equity ratio is 1.20 with standard deviation 0.50, 0.69, 0.82 respectively. Such high standard deviation implies high volatility in all debt equity ratio and debt financing too.
- 7) Overall declining trend is observed in secured debt equity ratio , unsecured debt equity ratio, total debt equity ratio in Maruti Suzuki India Ltd. Also interesting findings is that secured debt equity is zero in last five years and same negligible, declining trend in unsecured debt equity ratio is found during study period. This trend indicates that most of the finances are through equity routes and in equity routes first priority is to internally generated funds. Overall debt equity ratio analysis implies that Maruti Suzuki India Ltd. is following conservative approach in their debt financing.
- 8) Hero Honda Motors Ltd. has declining trend in overall period in its total debt equity ratio. Today company is almost debt free company, as during study period company have not used secured debt. Unsecured debt equity ratio has declined from 0.17 in 2002 to 0.02 in

2010. This indicates heavy reliance of company on internally generated funds. Average total debt equity ratio is 0.10, which is the same as unsecured debt equity ratio. This indicates less reliance on debt while raising the funds.

- 9) In case of Baja Auto Ltd., company has used very negligible secured debt in financing decision as average secured debt equity ratio is 0.01. Unsecured debt equity ratio has used to meet the financing gap and average secured debt equity ratio is 0.34. The total debt equity ratio has same trend as unsecured debt equity ratio.
- 10) TVS Motors Ltd. has used combination of secured and unsecured debt equity ratio. Particularly after 2004, overall increasing trend is observed in all ratios. In total financing, secured debt have considerable portion as compare to unsecured debt.

Major findings on determinants of financial leverage

- 1) The multiple regression model is found significant in all selected auto companies except Eicher Motors Ltd. and R^2 has revolved between 79.80% and 95.90%.
- 2) The major findings of this study is only profitability is found significant and common determinant of capital structure in all selected companies except Eicher Motors Ltd. and Hero Honda Motors Ltd.
- 3) Another important finding is the presence of pecking order theory in selected auto companies except Eicher Motors Ltd. and Hero Honda Motors Ltd. As profitability has found negative relationship with financial leverage. This results indicates that firm follows hierarchy in capital structure decisions as follows
 - a. First firm retains the earnings and use internally generated funds to finance the operations.
 - b. If there is financial deficit to meet investment requirement, firm issues debt instruments and in debt it issues safest debt first.
 - c. Equity is used as last resort.

This finding indicates that debt ratio of a firm is a outcome of cumulative financing decision and the financial deficit of the firm. So debt ratio of the firm is accidental result of internal cash flows and investment needs.

- 4) Size of firm has found significant and negative relationship in Ashok Leyland Ltd. and positive and significant relationship in Bajaj Auto Ltd. and in rest companies either size of firm is excluded from final regression model or found insignificant.

- 5) Tangibility of the firm and non debt tax shield has either found no relationship with financial leverage or excluded from final regression model in selected auto companies. Tangibility may have negative or positive relationship with leverage but the same is not found in any selected auto company is due to lack of long term debt financing.
- 6) Following table shows multiple regression results of selected Indian auto companies.

Table No. 5.2 - Results of multiple regression model in selected Indian auto companies

Name of company	Tangibility	Size of firm	Profitability	Non debt tax shield	Growth in asset	Model significance	R ²
Tata Motors	\$Excluded	Excluded	-1.457	Ins.*	Ins.	Significant	93.70
Ashok Leyland	Ins.	-0.138	-1.037	Excluded	Excluded	Significant	93.80
Mahindra Mahindra	Ins.	Ins.	-0.959	Excluded	Excluded	Significant	87.70
Eicher Motors	Ins.	Ins.	Ins.	Ins.	Excluded	Ins.	34.80
Swaraj Mazda	Ins.	Ins.	-3.344	Ins.	Excluded	Significant	86.00
Maruti Suzuki India	Excluded	Excluded	-0.598	Ins.	Ins.	Significant	79.80
Hero Honda Motors	Ins.	Excluded	Ins.	Excluded	- 0.000081	Significant	95.20
Bajaj Auto .	Excluded	0.294	-0.905	Ins.	-0.002	Significant	95.90
TVS Motors	Ins.	Ins.	-1.131	Excluded	Excluded	Significant	86.20

\$ Excluded – Variable is excluded from final model due to multicollinearity

***Ins – Variable is found insignificant in final model**

- 7) Comparison of findings of this study with earlier findings in automobile industry

The presence of pecking order theory is accepted by extensive research by Dr.Vijaykumar (2011) in Indian automobile industry, the measure of financial leverage is used as debt to equity and this research find out that negative relationship between financial leverage and profitability in commercial vehicle segment, passenger car vehicle segment, two and three wheeler segment and in whole industry. Also Inderjit Singh et.al. (2012) also found

negative relationship between profitability and financial leverage in 100 auto companies listed at BSE in Indian automobile industry. Riyaz Ahmad K (2012) found insignificant relationship between profitability and financial leverage but relationship between profitability and financial leverage has found negative in Indian automobile companies listed in automobile index of NSE.

Conclusion of the study

This study has carried out with key objective to study capital structure decisions in selected auto companies. The period of the study covered period of ten years 2001 to 2010. The result shows that there is no particular pattern in debt equity ratio in Indian automobile companies, total debt equity ratio, secured debt equity ratio and unsecured debt equity ratio largely differs from each other. But particular financing pattern is observed in Indian automobile companies, the result shows that only profitability is found common determinant in most of the companies. The result of selected auto companies shows significant relationship between profitability and financial leverage and this relationship is found negative. So debt is outcome of investment requirement by the company and availability of internally generated funds. This finding of study supports to the presence of pecking order theory of capital structure in Indian automobile companies and automobile companies follows a particular pattern in their financing. The result of the study shows that selected Indian Auto companies first use internally generated funds, then issue debt instrument and equity is used as last resort and Indian auto companies heavily relied on internally generated funds than any other source of finance. The finding of this research is closely related with earlier empirical findings in Indian automobile industry.

Suggestions

On the basis findings, the following suggestions are suggested to improve the capital structure pattern to enhancing shareholders wealth.

- 1) The secured debt equity ratio has found almost 0 or negligible in few companies, so to enhance the shareholders wealth more use of debt is important. Unlevered firm fails to exploit tax shield by use of debt and pays more tax than levered firm. This saved outflow of tax by use of debt is income of shareholders. Hence by considering future competition, cost of capital and taxable income auto companies should increase debt in their capital structure.

- 2) The regression results found that there is a negative relationship between profitability and financial leverage of the firm in most of Indian auto companies. Hence it important to understand the relationship between shareholders expectation from the firm and finance manager expectation in using earning of the firm. Earnings of the firm are less costly to the firm, so company follows to retain the firm at the cost of innocent shareholder. So while retaining the earnings of the firm, retain all earnings if firm have growth opportunities which yield better return than available to shareholder. If firm failed to achieve the expected return of shareholders, this may adversely affect stock market price of share and market capitalization. It will be costly for the firm to raise funds through equity route in future.
- 3) Future of Indian automobile industry is challenging, highly competitive and r & d oriented, so capital structure decision will be crucial for shareholder wealth maximization. High debt will increase the risk in the firm, hinders smooth flow of operations and in case of low debt shareholders give up opportunity to accumulate more earnings by financial leverage. So finance manager have to trade off between risk and return while designing capital structure of firm.

Scope for further studies

- 1) This research need to be altered to address the impact of LPG policy on auto industry growth and auto industry financing pattern after 1990-91. As this study has discussed last decade 2001-2010, further analysis from 1991 to 2011 will help to assess the relationship between financial market openness and fund raising style of auto industry.
- 2) The findings of this study are based on selected auto companies further analysis need to be conducted on whole Indian auto industry, as very limited research is available in this financial area.
- 3) This research has used debt to total asset as proxy for financial leverage, further research need to be studied by considering debt to equity, long term debt to asset, short term debt to asset as proxy.
- 4) In this study only five independent firm specific variables have considered but by considering other firm specific variables like asset size, interest coverage ratio, age of the firm, liquidity ratio will improve the findings in this research topic.
- 5) Growth of auto industry has direct relation with country specific variables like growth in GDP, interest rates, exchange rates, consumer income and inflation. So inclusion of

country specific variables along with firm specific variables will unearth detailed financing determinants in auto industry.