



## A STUDY ON CAPITAL STRUCTURE OF SELECTED AUTOMOBILE INDUSTRIES IN INDIA



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### ABSTRACT

*This study is intended to find whether there is relationship between capital structure indicators (BV, ROA, ROCE, EPS) and MPS and also to test the relationship between debt-equity and MPS in TATA Motors, Mahindra & Mahindra and Maruti Suzuki. This study also analyses the leverages of these selected companies. The study was done based on the datum of past five financial years from 2010-2014 and the secondary data collected were confined to BSE ratings. The statistical tools such as correlation, regression and ANOVA were used in SPSS. The interpretations were represented in the form of tables and charts. It was concluded that, there is a relation between capital structure indicators (BV, ROA, ROCE, EPS) and MPS for TATA Motors, Maruti Suzuki but not for Mahindra and Mahindra. As well as there is a relation between debt-equity and MPS in TATA Motors, Mahindra & Mahindra and Maruti Suzuki*

**KEY WORDS** : Debt-Equity Mix, Leverages, WACC, Equity Market, Stock.

### 1.INTRODUCTION

“The make-up of a firm’s capitalization” is called capital structure. In other words, it represents the mix of different sources of long-term funds (such as equity shares, preference shares, long-term loans, debentures, bonds etc.) Capital structure is the crucial decision to be taken by every business, the positives and negatives of these decisions plays an important role in determining the future of every business.

#### OBJECTIVE OF THE STUDY

- ♣ To study the influence of capital structure indicators (BV, ROA, ROCE, EPS) on market price per share.
- ♣ To study the influence of equity and debt on MPS.

### 1.1.STATISTICAL TOOLS

- ☐ Trend analysis
- ☐ Correlation analysis
- ☐ Regression analysis
- ☐ ANOVA

### 1.2. LIMITATIONS OF THE STUDY

- ☞ The results cannot be generalized to all the companies of automobile industry.
- ☞ The study is based on published datum.

### 1.3. HYPOTHESIS

H<sub>1</sub> There is relationship between MPS and capital structure indicators (EPS, ROA, ROCE, BV).

H<sub>2</sub> There is relationship between MPS and equity, debt.

2. LITERATURE REVIEW

Simerly and Mingfang, (2000) brings out the important criteria on how to craft a capital structure which maximizes shareholder wealth. A firm’s capital structure is influenced by environmental dynamism, and that the match between environmental dynamism and capital structure is associated with superior economic performance. Our large-scale empirical analyses provide supportive evidence for the proposition that competitive environments moderate the relationship between capital structure and economic performance. From a theoretical standpoint, these findings provide another link between capital structure and corporate strategy. Hall,(2001) explains through the study that the value of a firm’s securities measures the value of the firm’s productive assets. If the assets include only capital goods and not a permanent monopoly franchise, the value of the securities measures the value of the capital. Finally, if the price of the capital can be measured or inferred, the quantity of capital is the value divided by the price. Baker and Wurgler,

(2002) finds that capital structure is the cumulative outcome of past attempts to time the equity market. The firms are more likely to issue equity when their market values are high, relative to book and past market values, and to repurchase equity when their market values are low. We document that the resulting effects on capital structure are very persistent. As a consequence, current capital structure is strongly related to past market values. Frydenberg, (2004) states that the capital structure and corporate finance literature is filled with different models, some firms prefer equity and others debt under different Circumstances. The paper is ended by a summary where the option price paradigm is proposed. Cai and Zhang, (2005) brings out that the increase in leverage reduces firms’ debt capacity and may lead to future under investment. In addition, the long-term debt plays a more important role in this relation than the short-term debt, and the leverage change has no impact on future stock return.

3.ANALYSIS AND INTERPRETATION

Table No:3.1

Comparison of Equity Among Tata Motors, Mahindra and Mahindra,Maruti Suzuki

Year	Tata Motors	Mahindra and Mahindra	Maruti Suzuki
2010	570.60	282.95	144.5
2011	637.71	293.62	144.5
2012	634.75	294.52	144.5
2013	638.07	295.16	151
2014	643.78	295.16	151

Source: Secondary data

From the above table equity of TATA Motors was increased from 570.60 in 2010 to 643.78 in 2014, Mahindra and Mahindra has slightly increasing equity from 2010

Chart No: 3.1

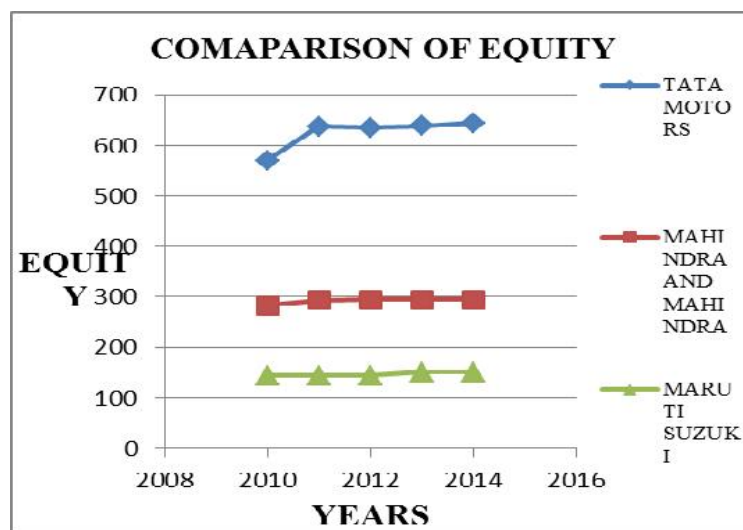


Table No: 3.2

## Comparison of Debt Among Tata Motors, Mahindra And Mahindra, Maruti Suzuki

Years	Tata Motors	Mahindra and Mahindra	Maruti Suzuki
2010	16625.91	2880.15	8214
2011	9679.42	2311.95	3093
2012	8004.5	3173.83	0
2013	8051.78	3172.44	5429
2014	9746.45	3744.42	4604

Source: Secondary data (Annual report only long term borrowings)

From the above table, the debt of TATA Motors was very high in 2010 when compared other companies.

Chart No: 3.2

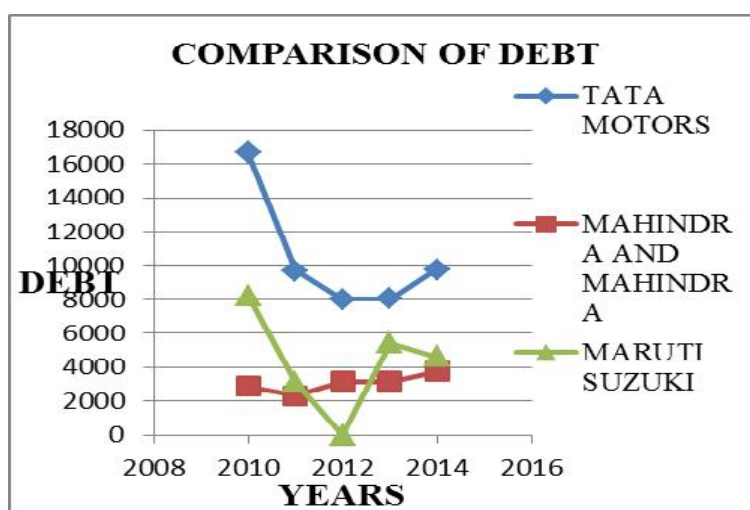


Table No: 3.3

## Comparison of Degree of Operating Leverage (DOL)\*

Year	Tata Motors	Mahindra and Mahindra	Maruti Suzuki
2010	3.53	3.21	2.27
2011	0.48	0.56	-0.2
2012	0.67	0.25	10.33
2013	3.28	0.93	3.09
2014	6.57	1.25	8.87

Source: Secondary data \* DOL = % change in operating profit / % change in sales

From the above table the OL of TATA Motors were increased and it reached, highest range in 2014. The negative sign in DOL happens when the companies fixed cost is greater than its contribution.

Chart No: 3.3

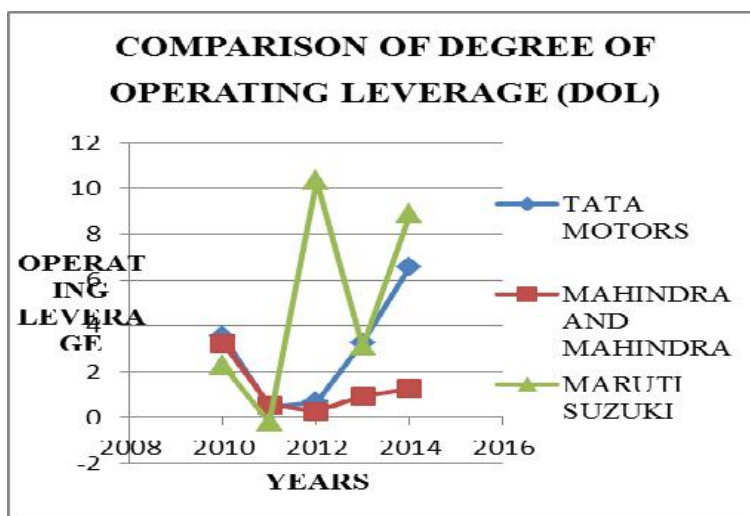


Table No: 3.4 Comparison Of degree Of Financial Leverages (DFL)\*

Year	Tata Motors	Mahindra and Mahindra	Maruti Suzuki
2010	0.058	-0.48	-0.81
2011	-1.21	-0.59	1.14
2012	-0.66	11.5	-0.74
2013	0.0008	0.74	0.44
2014	0.063	-21.17	1.64

Source : Secondary data \*DFL = % change in EBIT / % change in EBT

From the above table higher risk of degree of financial leverage shows that the amount of fixed interest bearing securities is more in the total capital structure of the company.

Chart No: 3.4

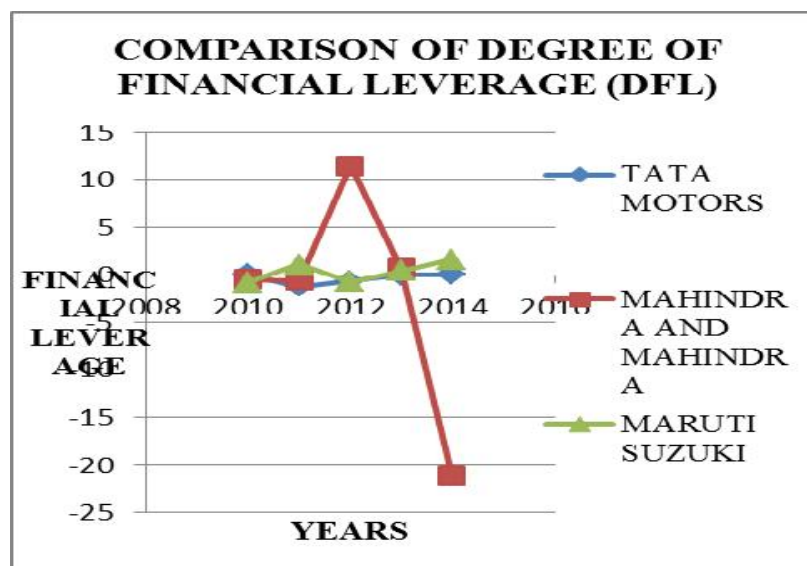


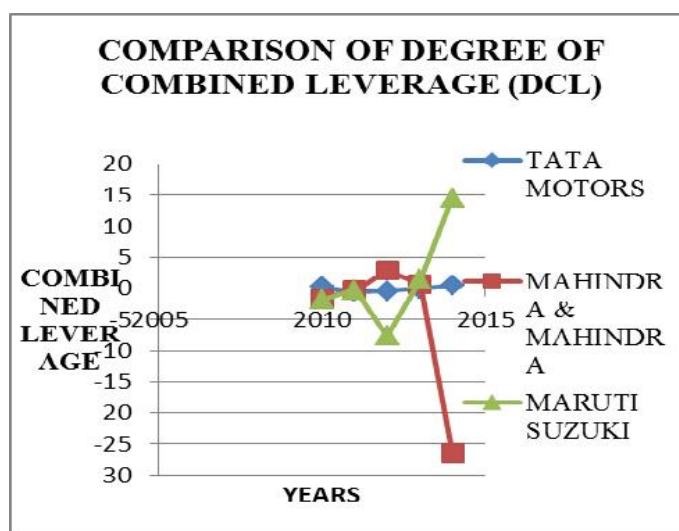
Table No: 3.5

## Comparison of Combined Leverages (DCL)\*

Years	Tata Motors	Mahindra & Mahindra	Maruti Suzuki
2010	0.205	-1.541	-1.839
2011	-0.581	-0.330	-0.228
2012	-0.442	2.875	-7.62
2013	0.003	0.688	1.359
2014	0.414	-26.463	14.55

Source : Secondary data \*DCL = DOL \* DFL. From the table of combined leverage, TATA Motors and Maruti Suzuki both has a steady fluctuations in DCL risk and it ranges from negative to positive. Thus, DCL is the combination DOL and DFL. Mahindra & Mahindra DCL ranges from 1.54 negative to 14.55 in 2014. This is due to the fluctuations of DOL and DFL of Maruti Suzuki.

Chart No: 3.5



## 4.FINDINGS

- ✓ The finding of this paper shows that there was a relationship between MPS and capital indicators through the statistical tool ANOVA for TATA Motors and Maruti Suzuki. But there was no relationship between MPS and capital indicators through the statistical tool ANOVA for Mahindra and Mahindra.
- ✓ The leverage used in TATA Motor is high in the year 2013 whereas in Mahindra and Mahindra, Maruti Suzuki there is no rapid fluctuation its leverages and they were steadily maintained.
- ✓ There was a relationship MPS and debt, equity shows that the hypothesis is accepted using ANOVA for all the three companies. But there was a negative correlation between MPS and debt, equity for TATA Motors.

## 4.1. CONCLUSIONS

The ability of the researcher has been experienced to provide recommendation and suggestion for further researcher to gain, if any research will be conducted by them in this field. Only secondary data are collected to analysis and to do this research. This study is confined to BSE ratings of these companies. Further researchers may consider both BSE and NSE ratings and other information can be gathered by visiting to every company.

This paper been completed with the important objectives analyzing influence of capital structure indicators on MPS The result of the study through ANOVA shows there was no influence of capital structure indicators on MPS for Mahindra and Mahindra. But for TATA Motors and Maruti Suzuki ANOVA shows there was influence of capital structure indicators on MPS

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