

Impact of Leverage on the Capital Structure Practice of Selected Automobile Companies in India

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Abstract: *Transportation industry is the important essential for the development of the industry and infrastructure through minimizing the distance between different destinations. In India LCVs & HCVs companies playing a major role for the development of industries in the country through proving goods & services on time, the present study is concern with impact of leverage on the capital structure practice of selected automobile companies in India. This study investigates the relationship between leverage & profitability of the companies using statistical tools like mean, standard deviation, variance, skewness, Kurtosis and Pearson correlation. The study based on secondary data collected from annual reports of the companies, top five automobile companies selected on basis of sale turnover & listed in BES stock exchange. The study has concluded that there is a positive correlation between DOL, DCL & EPS and negative correlation between DFL, DER & EPS among majority of the companies selected for the study during study period.*

Key words: LCVs, HCVs, DOL, DFL, DCL, EPS

INTRODUCTION

A Finance Manager has to decide about the make-up of the total amount of capitalization. If we look and analyse the balance sheets of any business concern, we find that its total capital is being distributed in equity shares, preference shares, and debentures or bonds. Capital structure is used to represent the proportionate relationship between debt and equity. Capital structure is the mix of long term sources and it includes owned capital, preference share capital and long term source.

Financial Manager attempts to fix the proportion/ratio among all these securities on the basis of certain assumptions and with reference to particular situation. While determining the pattern of capital structure a number of factors are to be considered. The capital structure which offers guarantee for optimum returns is called optimum capital structure. But the determination of such an optimum capital structure is a formidable task in practice. That is why significant variations among industries and among different individual

companies within an industry regarding capital structure as noted. It's still an unsolved problem, giving ample scope for further research.

The seminal work of Modigliani and Miller (1958) who studied the impact of corporate tax in use of debt capital, many researchers viz., Myers (1984), Titman and Wessel (1988), Rajan and Zingales (1995) have analyzed the factors that determine the capital structure of a firm and while there exist varied view about the relation between profitability and capital structure. The necessity for such researches, in this area, has gained importance as globalization and stiff competition have forced today's corporate firms to determine that level of debt, which offers increased profitability to the firm's owners without unduly increasing the risk of insolvency and at the same time make the firm a less attractive target for corporate restructuring viz., merger or takeover. Most of theories tested by developed countries; need to be tested for their adaptability in the developing countries like India in recent time. A question still remains before financial managers in the Indian context, whether to issue debt or equity.

India is a developing country, transportation industry is playing a major role in development of the industry and infrastructure through minimizing the distance between different destination. In transport industry LCVs & HCVs companies playing a major role for the development of industries in the country, the present study is concern with impact of leverage on capital structure practice on profitability of the Automobile industry

REVIEW OF LITERATURE

Modigliani and Miller (1958) in their work "The cost of capital, corporate finance and the theory of investment" stated that an investment financed by common stock is advantageous to the current stock holders if and only if its yield exceeds the capitalization rate. When a corporate income tax under which interest is a deductible expense is considered, gain can accrue to stake holders from having debt in the capital structure even when capital market are perfect.

Titman & Wessel (1988), in a work “The determinants of capital structure choice” They identified opposite relation between collateralizable capital and debt level. Growth rate were negatively related to long term debt, accepting the pecking order theory which assumes that firms give more preference to retained earnings when deciding about financing a project.

Sobia Qayyaum (2013), studied what determines the capital structure of Pakistani listed cement companies. The study shows that except size, all other variable have significant relationship with leverages and can be used for making decisions by companies in cement industry

Dr. Sarbapriya Ray (2013), in their work “Investigating capital structure determinants in listed cement companies of India” they identified the assets composition , size and non-dent tax shields are found to have statistically positive relationship with debt –equity ratio which supports earlier research findings and age , profitability and assets collateral have significant negative relations with leverage.

Dr. Sukhdev Singh & Rajni Luthra (2013), in a work “Impact of Leverage on the Capital Structure Practices of Selected Telecommunication Companies” The results of the study suggested that leverage and profitability and growth are related and leverage is having an impact on the capital structure practices of the firm.

Khushbakht Tayyaba (2013) in their work examines the effect of leverage on profitability or not. The study used return on assets, return on equity, and return on investment and Earning per share as dependent variable and degree of financial leverage & degree operating leverage as independent variable. The result shows that degree of financial leverage and return on assets have positive relationship, while degree of operating leverage and return on assets have inverse relationship.

Syed Shah Fasih Ur Rehman (2013) the study is to examine the influence of financial leverage on financial. The result shows that the positive relationship of debt equity ratio with return on asset and sales growth, and negative relationship of debt equity ratio with earning per share, net profit margin and return on equity.

Dr. D. Vijayalakshmi & Dr. Padmaja Manoharan (2014) the study examine the impact of leverage on profitability of diversified sector for the period 1995-96 to 2009-10. A panel data approach has been applied to analyze the data. The results show that the leverage has a significant influence on profitability.

Dr. J. B. Patel (2014) The study examines the relationship between return on capital employed, return on equity, return on assets and earnings per

share with operating leverage, financial leverage and total leverage. The results reveals DOL, DFC, DTL and ROCE, ROE, EPS have positive relationship and DOL and ROA, DTL and ROA also positive relationship while DEL and ROA have inverse relationship.

V. Kalpana (2014) the study analyses the impact of leverage on profitability i.e. Earnings per share of selected steel companies traded in BSE. The result shows that that there is a negative correlation between degree of operating leverage and Earning per share, degree of financial leverage and Earning per share, and degree of combined leverage and Earning per share. The use of debt and fixed cost expenses would reduce the profitability of the firms.

S.M.R.K. Samarakoon, U.E.S. Kumara and U.G.V.D.D. Gunarathne (2014) the study explains the impact of two distinct forms of leverage that arises due to the financing activities and operational activities, upon the profitability and market performance of a firm. The result shows that relationship between leverage and profitability best describes by the RONO model and where OLLEV and FLEV exhibit a positive significant impact on the RONO. While FLEV affects the ROA negatively and significantly, there is a negative significant relationship between TLEV and ROE. Only LGMCAP is captured by OLLEV and TLEV positively and negatively respectively.

Dr. A. Vijayakumar & Ms. A. Karunaiathal (2014) this study examine the relationship between the leverage and profitability. The results show that there is a positive and significant impact of leverage measured in terms of total debt to total capital with the return on equity of both the Indian paper industry and the large scale sector.

Somayyeh Mahmoudi(2014) the study examine the relationship between leverage and firm profitability, the Short term debt to equity and long term debt to equity were considered as leverage variables, Firm profitability is measured using return on equity(ROE) and return on assets (ROA). The results show that there was a significant and negative relationship between leverage and firm profitability.

Dr. Abdallah Barakat (2014) the study examine the effect of financial structure, financial leverage and profitability on industrial company’s value as a long term strategic analysis that helps the analyst in predicting future company’s value on the light of the mentioned variables in addition to external environment analysis. The results show the positive relationship between capital structure and return on equity upon using multiple regression analysis; it was shown that the strongest relationship was between capital structure and dependent variable.

Dr. Maher Odeh Al-Shamaileh, & Salim. M. Khanfar (2014) this study examine the financial

leverage ratio and the rate of return on investment on profitability for sources of the funding in tourism companies which operating in Jordan. The results show that the presence of a statistically significant impact for the financial leverage on the Profitability of the Tourism companies listed in the Amman Exchange.

Dr. M Ramana Kumar (2015) an empirical study on relationship between Leverage and Profitability in Bata India Limited, The result shows that Degree of operating leverage significantly positive correlation with the Return on investment & degree of financial leverage is positively correlated with return on investment.

OBJECTIVES OF THE STUDY

1. To analyse the all type of leverages i.e. Financial, Operating & Combined leverage of selected Auto - LCVs & HCVs companies in India.
2. To analyse the impact of leverages on the capital structure of selected Auto - LCVs

& HCVs companies in India via profitability.

3. To study the relationship between financing mix and EPS of selected Auto - LCVs & HCVs companies in India.

METHODOLOGY OF THE STUDY

The study uses secondary data for the period 2005-06 to 2014-15 to analyse the impact of leverage on profitability of selected Auto - LCVs & HCVs companies in India. A sample size of top Five Indian Auto - LCVs & HCVs companies listed in BSE has been selected for study purpose. It was decided to select five large companies on the basis of net sales & whose financial information is available for the entire study period, the data are collected from the annual report of the selected company and the website entitled money control.com. The analysis was done through Excel software & statistical tools like Average, Standard deviation, variance, Skewness, Kurtosis and correlation are used in the study.

Table No. 1 PROFILE OF SAMPLE COMPANIES

| Rank | Name of the Company | Net Sales (Rs. In crores) | Corporate office | Year of establishment |
|------|---------------------|---------------------------|------------------|-----------------------|
| 1 | Tata Motors | 36,294.74 | Mumbai | 1945 |
| 2 | Ashok Leyland | 13,562.18 | Chennai | 1948 |
| 3 | Eicher Motors | 3,031.22 | New Delhi | 1982 |
| 4 | Force Motors | 2,363.72 | Pune | 1958 |
| 5 | SML Isuzu | 1,105.55 | Chandigarh | 1983 |

(Source: <http://business.mapsofindia.com/automobile/#sthash.0oITFLuy.dpuf>)

DATA ANALYSIS AND INTERPRETATION

Degree of Financial Leverage

The use of fixed charges sources of funds such as debt and preference share capital along with equity share capital is called financial leverage or trading on equity (Pandey, 2011). The financial leverage

implies that capital structure includes fixed cost funds like debt or preferred capital. The degree of financial leverage measures the impact of change in operating income (EBIT) on change in earning on Equity share. It can be calculated as $DFL = \frac{EBIT}{EBT}$ (Pandey 2011) or $DFL = \frac{\% \text{ change in EPS}}{\% \text{ change in EBIT}}$ (Horne, Van 2012)

Table No.2 Degree of Financial Leverage (DFL) of Auto - LCVs & HCVs Companies

| Year | Ashok Leyland | Eicher Motors | Force Motors | SML Isuzu | Tata Motors |
|---------|---------------|---------------|--------------|-----------|-------------|
| 2005-06 | -2.15 | -5.59 | 9.35 | 1.42 | -4.21 |
| 2006-07 | -0.09 | -0.35 | -8.49 | 1.62 | -1.15 |
| 2007-08 | -0.66 | -0.82 | -24.01 | 0.19 | 0.08 |
| 2008-09 | -0.84 | 0.38 | 16.47 | 2.13 | 5.79 |
| 2009-10 | 0.43 | -0.51 | -7.38 | -1.21 | -0.35 |
| 2010-11 | -0.21 | -0.49 | -2.53 | 0.16 | 0.07 |
| 2011-12 | -0.27 | -2.79 | -43.12 | 0.30 | 0.23 |
| 2012-13 | -0.90 | 91.74 | -1.16 | 0.14 | -0.61 |

| | | | | | |
|----------|---------|--------|---------|--------|----------|
| 2013-14 | 1.10 | 3.28 | -4.77 | 1.78 | 0.33 |
| 2014-15 | -0.70 | 2.14 | -4.39 | 0.20 | -0.06 |
| Mean | -0.43 | 8.70 | -7.00 | 0.68 | 0.01 |
| S D | 0.87 | 29.28 | 16.60 | 1.03 | 2.43 |
| CV | -201.17 | 336.63 | -237.08 | 152.01 | 21624.04 |
| Skewness | -0.22 | 3.12 | -1.04 | -0.19 | 1.12 |
| Kurtosis | 1.43 | 9.81 | 1.87 | -0.43 | 4.61 |

Source: computed from data available in annual reports of company

From the above table 2 reveals that overall DFL shows a fluctuating trend in all the companies. The mean value of Eicher motors is highest and force motors is lowest compared to other companies. The Standard deviation of DLF of Eicher motors is highest and ashok Leyland is very low which indicated that the company is less risky in term of financial risk with compare to other companies. The CV of Tata motors is highest and force motors is lowest compared to other companies. The skewness value of DFL of Eicher motors; Tata Motors are positively skewed while the skewness of DFL of rest of the companies is negatively skewed. The kurtosis value of DFL of Ashok Leyland, Eicher motors, force motors and Tata motors are leptokurtic and value of SML Isuzu is Platykurtic.

Degree of Operating Leverage (DOL)

Operating leverage may be defined as the firm’s ability to use operating costs to magnify the effects of changes in sales on earnings before interest and taxes. Operating leverage is associated with investment activities. Operating leverage results from the present of fixed operating expenses with firm’s income stream. The degree of operating leverage may be defined as the change in the percentage of operating leverage at any level of output is arrived at by dividing the percentage change in EBIT with percentage change in sales.
 Operating leverage = contribution / operating profit
 Degree of operating leverage = percentage change in EBIT / Percentage change in sales

Table No.3 Degree of operating Leverage (DFL) of Auto - LCVs & HCVs Companies

| Year | Ashok Leyland | Eicher Motors | Force Motors | SML Isuzu | Tata Motors |
|----------|---------------|---------------|--------------|-----------|-------------|
| 2005-06 | 0.41 | 0.36 | 0.08 | -0.17 | 2.30 |
| 2006-07 | 0.80 | 0.12 | 0.08 | -0.10 | 1.88 |
| 2007-08 | 7.35 | -1.30 | 0.07 | 0.66 | 1.31 |
| 2008-09 | 0.56 | 0.72 | -0.04 | 0.20 | -3.55 |
| 2009-10 | 0.40 | 1.01 | -0.05 | 0.75 | 1.04 |
| 2010-11 | 0.82 | 1.14 | -0.10 | 0.97 | 1.30 |
| 2011-12 | 1.87 | 1.51 | -0.20 | 0.90 | 1.98 |
| 2012-13 | -3.17 | -27.91 | -0.36 | 1.12 | -10.99 |
| 2013-14 | 0.93 | -0.12 | -0.23 | -1.84 | -0.68 |
| 2014-15 | -2.18 | 0.13 | -0.21 | 1.71 | -0.70 |
| Mean | 0.78 | -2.44 | -0.10 | 0.42 | -0.61 |
| S D | 2.77 | 8.98 | 0.15 | 0.98 | 4.05 |
| CV | 355.34 | -368.98 | -157.61 | 232.58 | -661.76 |
| Skewness | 1.29 | -3.12 | -0.26 | -1.34 | -2.23 |
| Kurtosis | 3.76 | 9.79 | -1.08 | 2.65 | 5.26 |

Source: computed from data available in annual reports of company

From the above table 3 reveals that the degree of operating leverage of Auto LCVs and HCVs are fluctuating over a years of time. The mean value of DOL of Ashok Leyland is highest which means that there is a high variation in fixed cost expenditure of the company and Eicher motors is lowest as compared to other companies. The SD of DOL of Eicher motor is highest and Force motor is lowest as compared to other companies. The CV of

Ashok Leyland is highest which shows the more variation in DOL during the study period. The skewness value of DOL of ashok layland is positively skewed and the skewness value of DOL of rest of the companies is negatively skewed. The kurtosis value of DOL of Force motor is Platykurtic and the kurtosis value of DOL of rest of the companies is leptokurtic.

Degree of Combined Leverage (DCL)

Operating and financial leverage together cause wide variation in EPS for a given change in sales and operating costs. It can be calculated by multiplying the operating leverage and financial leverage. The operating leverage affects the EBIT

and financial leverage affects the EPS, Return on equity and return on Investment. The management needs to manage the true combination of the operating and financial leverage. The degree of combined leverage can be calculated as

$$\text{Degree of Combined Leverage} = \text{Degree of Operating leverage} \times \text{Degree of Financial leverage}$$

Table No.4 Degree of Combined Leverage (DFL) of Auto - LCVs & HCVs Companies

| Year | Ashok Leyland | Eicher Motors | Force Motors | SML Isuzu | Tata Motors |
|----------|---------------|---------------|--------------|-----------|-------------|
| 2005-06 | -0.88 | -2.02 | 0.78 | -0.25 | -9.68 |
| 2006-07 | -0.07 | -0.04 | -0.71 | -0.15 | -2.16 |
| 2007-08 | -4.85 | 1.07 | -1.57 | 0.13 | 0.10 |
| 2008-09 | -0.47 | 0.27 | -0.58 | 0.43 | -20.59 |
| 2009-10 | 0.17 | -0.52 | 0.39 | -0.90 | -0.37 |
| 2010-11 | -0.17 | -0.56 | 0.26 | 0.16 | 0.09 |
| 2011-12 | -0.51 | -4.20 | 8.81 | 0.27 | 0.46 |
| 2012-13 | 2.87 | -2560.39 | 0.41 | 0.16 | 6.68 |
| 2013-14 | 1.02 | -0.40 | 1.12 | -3.28 | -0.23 |
| 2014-15 | 1.53 | 0.27 | 0.93 | 0.35 | 0.05 |
| Mean | -0.14 | -256.65 | 0.99 | -0.31 | -2.56 |
| S D | 2.01 | 809.45 | 2.87 | 1.11 | 7.46 |
| CV | -1463.55 | -315.39 | 291.61 | -360.44 | -291.02 |
| Skewness | -1.23 | -3.16 | 2.65 | -2.55 | -1.78 |
| Kurtosis | 3.52 | 10.00 | 7.84 | 6.88 | 3.79 |

Source: computed from data available in annual reports of company

From the above table 4 reveals that the DCL of all the companies are in a fluctuating trend during the study period. The mean value of DCL of Force motor is highest and Eicher motor is lowest as compared to other companies. The SD of Eicher motor is highest and SML Isuzu is lowest as

compared to other companies during the study period. The Force motor is highest variance during study period. The skewness value of DCL of all the companies except Force motor is negatively skewed. The kurtosis value of DCL of all the companies is leptokurtic.

Debt-Equity Ratio of Auto - LCVs & HCVs Companies

Table No.5 Debt-Equity Ratio of Auto - LCVs & HCVs Companies

| Year | Ashok Leyland | Eicher Motors | Force Motors | SML Isuzu | Tata Motors |
|---------|---------------|---------------|--------------|-----------|-------------|
| 2005-06 | 0.50 | 0.39 | 1.00 | 1.71 | 0.53 |
| 2006-07 | 0.34 | 0.47 | 1.34 | 1.45 | 0.59 |
| 2007-08 | 0.42 | 0.43 | 3.55 | 1.52 | 0.80 |
| 2008-09 | 0.93 | 0.01 | 0.71 | 2.28 | 1.06 |
| 2009-10 | 0.98 | 0.03 | 0.52 | 0.45 | 1.12 |
| 2010-11 | 0.88 | 0.04 | 0.67 | 0.40 | 0.73 |
| 2011-12 | 0.83 | 0.03 | 0.05 | 0.41 | 0.56 |
| 2012-13 | 1.11 | 0.03 | 0.04 | 0.61 | 0.75 |
| 2013-14 | 1.19 | - | 0.02 | - | 0.76 |
| 2014-15 | 0.63 | - | 0.01 | 0.07 | 1.35 |
| Mean | 0.78 | 0.18 | 0.79 | 0.99 | 0.83 |

| | | | | | |
|----------|-------|--------|--------|-------|-------|
| S D | 0.29 | 0.21 | 1.07 | 0.76 | 0.27 |
| CV | 37.60 | 117.10 | 135.70 | 77.03 | 32.57 |
| Skewness | -0.23 | 0.68 | 2.18 | 0.51 | 0.89 |
| Kurtosis | -1.30 | -2.07 | 5.43 | -1.21 | -0.06 |

Source: computed from data available in annual reports of company

From the above table 5 reveals that the debt equity ratio of Auto - LCVs & HCVs Companies during the year 2005-06 to 2014-15. The mean value Debt equity ratio of SML Isuzu is high and Eicher motor is low as compared to other companies. The SD of Debt equity ratio of Force motor is highest and Eicher motor is lowest as compared to other company. It shows that the changes in capital structure of the company. The CV of Force motor

is highest which shows the company's capital structure is more various during the study period as compared to other companies. The skewness value of Debt equity ratio of all the companies positively skewed except ashok layland during the study period. Kurtosis value of debt equity ratio of all the companies is Platykurtic except force motor during the study period.

Earnings per Share of Auto LCVs and HCVs companies
Table No. 6 Earnings per Share of Auto - LCVs & HCVs Companies

| Year | Ashok Leyland | Eicher Motors | Force Motors | SML Isuzu | Tata Motors |
|----------|---------------|---------------|--------------|-----------|-------------|
| 2005-06 | 1.43 | 77.20 | 22.87 | 16.00 | 16.00 |
| 2006-07 | 3.33 | 21.81 | -28.45 | 15.34 | 15.34 |
| 2007-08 | 3.53 | 22.44 | -63.49 | 24.03 | 24.03 |
| 2008-09 | 1.43 | 13.88 | 94.54 | 4.57 | 4.57 |
| 2009-10 | 3.18 | 29.64 | 45.86 | 14.83 | 14.83 |
| 2010-11 | 4.75 | 28.01 | 44.49 | 25.26 | 25.26 |
| 2011-12 | 2.13 | 46.64 | 625.62 | 28.93 | 28.93 |
| 2012-13 | 1.63 | 53.61 | 10.84 | 25.18 | 25.18 |
| 2013-14 | 0.11 | 103.04 | 58.97 | 12.02 | 12.02 |
| 2014-15 | 1.18 | 206.21 | 76.93 | 25.53 | 25.53 |
| Mean | 2.27 | 60.25 | 88.82 | 19.17 | 19.17 |
| S D | 1.39 | 58.39 | 194.48 | 7.75 | 7.75 |
| CV | 61.22 | 96.92 | 218.97 | 40.42 | 40.42 |
| Skewness | 0.33 | 2.04 | 2.81 | -0.57 | -0.57 |
| Kurtosis | -0.44 | 4.45 | 8.45 | -0.55 | -0.55 |

Source: computed from data available in annual reports of company

From the above table 6 reveals that the Earning per Share of Auto - LCVs & HCVs Companies during the year 2005-06 to 2014-15. the mean value, SD & CV of Earning per Share of Force motor is highest as compared to other companies indicating the risk in the company. The skewness value of EPS of Ashok Leyland, Eicher motor & Force motor are positively skewed and for rest are negatively skewed. The kurtosis value Ashok Leyland, SML Isuzu & Tata motor is Platykurtic and rest of the companies are leptokurtic.

The Karl Pearson coefficient of correlation varies from -1 to +1. When two variables are negatively correlated then the correlation is called negative correlation and Karl parson correlation is negative. When two variables are positively correlated then the correlation is called positive correlation and Karl parson correlation is positive. When there are no correlation two variables then it is called zero correlation and the Karl Pearson coefficient is zero. If the correlation coefficient between two variables is -1 then there exists perfect negative correlation. If the correlation coefficient between two variables is +1 then there exists perfect positive correlation.

Relationship between Leverage and profitability (EPS)

Table No. 7 Correlation analysis of DFL and EPS of Auto - LCVs & HCVs Companies

| Name of the Company | Coefficient of correlation | Correlation result |
|---------------------|----------------------------|--------------------|
| Ashok Leyland | 0.042 | Positive |
| Eicher Motors | -0.010 | Negative |
| Force Motors | -0.629 | Negative |
| SML Isuzu | -0.591 | Negative |
| Tata Motors | -0.404 | Negative |

(Source: calculated from the annual reports of the sample companies)

From the above table 7 reveals that the Eicher motor, Force motor, SML Isuzu & Tata motors have negative correlation between the EPS and DFL. The Ashok Leyland has the positive correlation between the EPS and DFL during the period 2005-06 to 2014-15.

Table No. 8 Correlation analysis of DOL and EPS of Auto - LCVs & HCVs Companies

| Name of the Company | Coefficient of correlation | Correlation result |
|---------------------|----------------------------|--------------------|
| Ashok Leyland | 0.398 | Positive |
| Eicher Motors | 0.027 | Positive |
| Force Motors | -0.342 | Negative |
| SML Isuzu | 0.636 | Positive |
| Tata Motors | 0.003 | Positive |

(Source: calculated from the annual reports of the sample companies)

From the above table 8 reveals that the ashok Leyland, Eicher motors, SML Isuzu & Tata Motors have positive correlation between the EPS & DOL. The Force motors have the Negative correlation between the EPS and DOL during the study period.

Table No. 9 Correlation analysis of DCL and EPS of Auto - LCVs & HCVs Companies

| Name of the Company | Coefficient of correlation | Correlation result |
|---------------------|----------------------------|--------------------|
| Ashok Leyland | -0.436 | Negative |
| Eicher Motors | 0.040 | Positive |
| Force Motors | 0.972 | Positive |
| SML Isuzu | 0.384 | Positive |
| Tata Motors | 0.746 | Positive |

(Source: calculated from the annual reports of the sample companies)

From the above table 9 reveals that the Force Motors, Eicher motors, SML Isuzu & Tata Motors have positive correlation between the EPS & DCL. The Ashok Leyland have the Negative correlation between the EPS and DCL during the study period.

Table No. 10 Correlation analysis of DER and EPS of Auto - LCVs & HCVs Companies

| Name of the Company | Coefficient of correlation | Correlation result |
|---------------------|----------------------------|--------------------|
| Ashok Leyland | -0.359 | Negative |
| Eicher Motors | 0.089 | Positive |
| Force Motors | -0.419 | Negative |
| SML Isuzu | -0.745 | Negative |
| Tata Motors | -0.149 | Negative |

(Source: calculated from the annual reports of the sample companies)

From the above table 10 reveals that the Eicher motors have positive correlation between the EPS & DER. The Ashok Leyland, Force motors, SML Isuzu & Tata motors have the negative correlation between the EPS & DER during the study period.

FINDINGS

- The mean value and SD of DFL of Eicher motors is highest among the sample companies which indicates that these

company is exposed to risk in paying interest & Tata motors have high variation during the study period.

- The Average of DOL of Ashok Leyland & SD of DOL of Eicher motor is highest among the sample companies which indicate that there is high variation in fixed cost expenditure of these companies.
- DCL of Eicher motor on an average & SD is high among other companies which indicate that the company is risky.
- The EPS of Force motor has highest Average among the selected companies and also high variation during the study period.
- The DER of SML Isuzu has highest average & Force motor has more variation during the study period.
- There is a negative correlation between DFL & EPS of majority of companies among the sample companies which indicate that there is no significant relationship between DFL & EPS.
- There is a positive correlation between DOL & EPS of majority of companies among the selected companies which indicates that there is a significant relationship between DOL & EPS.
- The correlation is positive among the majority of the companies between DCL & EPS which indicates that there is a significant relationship between DCL & EPS.
- There is negative correlation among majority of the companies between DER & EPS.

CONCLUSION

From the study it is found that there is positive correlation between DOL, DCL & EPS which indicates that there is a significant relationship between Degree of operating leverage, Degree of combined leverage & Earning per share. The negative correlation between DFL, DER & EPS, Thus operating expenses of the firm and overall leverage of the firm are significantly influencing the earning capacity of the firm. The Eicher motor has high financial risk and force motor has high earning capacity among selected companies for the study. so we can conclude that leverage is an important factor which is having a great impact on the capital structure practice of the companies via profitability.

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ABBREVIATION

- DOL = Degree of operating leverage
DFL = Degree of Financial leverage
DCL = Degree of Combined leverage
DER = Debt Equity Ratio
EPS = Earning per Share
LCVs = low carry vehicles
HCVs = Heavy carry vehicles
SD = Standard Deviation
CV = coefficient of correlation
EBIT = Earning before interest and tax
EBT = Earning before tax