

# Sustainable Firm Value and Financial Performance – A Study on the Indian Automobile Industry

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## Abstract:

Value is of great importance and as the word indicates it relates to the process of covering all aspects of business which enhances and influences the growth of a business. Any business which has more value enhances its market value. A study was conducted in the Indian automobile industry to analyze the interrelationships between financial performance and firm value. Regression analysis is one of the great tools for establishing and studying relationship between two or more variables. The sample consist of 15 companies representing the Indian automobile industry and the data is taken from Nifty auto index. Data was collected from published annual reports of automobile companies listed under Nifty Auto for the period 2009 to 2018. The findings of this study illustrate that firms with better financial performance has much market values and firms should focus on enhancing their financial performance.

**Keywords:** Financial performance, value, capital, automobile industry.

## INTRODUCTION

The most important factors that help to increase growth of a company's value added are: employee motivation, reliable and loyal clients, collaboration and communication, employee education, resilience, and positive psychological environment (Mačerinskienė & Survilaitė, 2012). Most of the research on identifying the relationship between firm performance and market value indicates that brand and customer metrics affect firm value. Most of the studies conducted to identify the relationship between firm value and market value have ignored current earnings. Yet most of the investors and executives focus on firms which has more value (O'Sullivan & McCallig, 2012). The study was conducted in the Indian automobile sector and it has emerged as a sunrise sector. The growth in the sector is tremendous and this sector covers passenger vehicles, commercial vehicles, three wheelers and two wheelers (Arumugam, Kumar, & Preetha, 2016). The paper conducts a regression analysis over the period of 10 years and data pertaining to value

addition of a firm has been collected and organized. The data collection with respect to value added has used the model from VA where the value is the structural, human and customer capital has been identified. The value of any organization enhanced through financial performance has many attributes (Mondal, 2016). For this purpose 15 companies were taken and seven variables were analyzed through regression and interrelationship through correlational analysis. The study is conducted to establish the relationship between financial performance and value of a firm.

## List of companies representing Indian automobile Industry as per NIFTY – AUTO

|                           |    |                          |
|---------------------------|----|--------------------------|
| Amara Raja Batteries Ltd. | 9  | Hero MotoCorp Ltd.       |
| Apollo Tyres Ltd.         | 10 | MRF Ltd.                 |
| Ashok Leyland Ltd.        | 11 | Mahindra & Mahindra Ltd. |
| Bajaj Auto Ltd.           | 12 | Maruti Suzuki India Ltd. |
| Bharat Forge Ltd.         | 13 | Motherson Sumi Systems   |

|                       |    |                        |
|-----------------------|----|------------------------|
|                       |    | Ltd.                   |
| Bosch Ltd.            | 14 | TVS Motor Company Ltd. |
| Eicher Motors Ltd.    | 15 | Tata Motors Ltd.       |
| Exide Industries Ltd. |    |                        |

The Indian auto industry became the most prominent sector in the economy and it has become the 4<sup>th</sup> largest in the world with sales increasing tremendously (Rathore & Swarup, 2006). The sector dominates the market in terms of volume as there is a increasing number of middle class population. In the near future it is identified that the Indian auto sector has become the largest exporter and the expectations has increased in the near future. The Government of India is also striving to make the Indian automobile industry as the major player in the global market by 2020. The growth of this industry is very important and thereby it is necessary to research and identify the factors that influence this sector (Tripathi, 2016). The study conducted has identified 7 variables to identify the interrelationships.

Regression analysis is one of the great tools for establishing and studying relationship between two or more variables, when the subject involves one dependent and one independent variable, the study term this simple linear regression, otherwise, if it involves one dependent and several independent variables, it is termed "multiple linear regression". Multiple linear regression is the proposed tool for this work, the model would be deployed among others to establish among other variables that significantly contributes to VALUE ADDED (VA). The researcher is interested in establishing all underlined relationship affecting occupational prestige in this work.

The sole aims of this research work are to this research work is to examine whether or not variables such as Value of a firm is able to predict Assets Turnover, return on Assets, return on Equity, return on invested capital, Basic EPS, Ev/net operating revenue and Price to book value. The study attempt to fit a regression model to establish the relationship between two or more variable, here a multiple linear regression is fitted using a independent variable VALUE ADDED (VA) and Seven other dependent variable selected for this work. The regression model tries to establish whether or not there is any relationship between the research (dependent) variable and the predictor variables.

### Value Added

Value added is the term that is often used and misrepresented. Value added is calculated using the different value added additives of a firm. It takes into account the structural value which includes patents, copyright, goodwill, structures and procedures of an organization. The value added component also includes another factor which involves the human element, the human capital which includes skills, qualification, training, designation, recruitment and exit policies etc., the capital employed of an organization is very important for the firm to understand the deployment of its capital in assets that remunerate the investors and the stakeholders of the firm. Value added as a component is the sum total of the structural components, human component and the capital employed of the organization.

All analysis to this work will be carried out on SPSS version 25.0 environment, 95% confidence interval which corresponds to 5% level of significance will be deployed.

### Discussion of results and report -Consolidated findings of the study

| NAME OF THE COMPANY | Price/BV | EV/NOR | EPS | ROI | ROE | ROA | ATO |
|---------------------|----------|--------|-----|-----|-----|-----|-----|
| M&M                 | 4        | 3      | 2   | 3   | 2   | 2   | 2   |
| Exide Industries    | 3        | 3      | 2   | 4   | 4   | 4   | 4   |

|               |   |   |   |   |   |   |   |
|---------------|---|---|---|---|---|---|---|
| Ashok Leyland | 4 | 4 | 4 | 3 | 4 | 3 | 3 |
| Tata Motors   | 3 | 2 | 4 | 3 | 4 | 2 | 1 |
| Eicher Motors | 2 | 2 | 4 | 4 | 4 | 4 | 4 |
| Amara         | 4 | 4 | 4 | 2 | 3 | 3 | 2 |
| Apollo        | 2 | 3 | 3 | 4 | 3 | 3 | 4 |
| Bajaj         | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Bosch         | 2 | 3 | 4 | 3 | 3 | 3 | 2 |
| Motherson     | 2 | 2 | 2 | 3 | 3 | 4 | 2 |
| Tvs           | 2 | 2 | 3 | 4 | 4 | 4 | 3 |
| Bharat        | 4 | 4 | 3 | 3 | 3 | 4 | 3 |
| MRF           | 4 | 4 | 3 | 2 | 4 | 3 | 3 |
| Hero          | 2 | 4 | 2 | 4 | 4 | 2 | 1 |
| Maruthi       | 3 | 3 | 3 | 4 | 4 | 4 | 3 |
| TOTAL         |   |   |   |   |   |   |   |

### Consolidated Findings of the study

| R-Squared Category | >0.75       | 0.50 – 0.75 | 0.25 – 0.50 | <0.25     | Total |
|--------------------|-------------|-------------|-------------|-----------|-------|
|                    | Very Strong | Strong      | Weak        | Very Weak |       |
| M&M                | 1           | 2           | 4           | 0         | 7     |
| Exide Industries   | 4           | 2           | 1           | 0         | 7     |
| Ashok Leyland      | 4           | 3           | 0           | 0         | 7     |
| Tata Motors        | 2           | 2           | 2           | 1         | 7     |
| Eicher Motors      | 5           | 0           | 2           | 0         | 7     |
| Amara              | 3           | 2           | 2           | 0         | 7     |
| Apollo             | 2           | 4           | 1           | 0         | 7     |
| Bajaj              | 7           | 0           | 0           | 0         | 7     |
| Bosch              | 1           | 4           | 2           | 0         | 7     |
| Motherson          | 1           | 2           | 4           | 0         | 7     |
| Tvs                | 3           | 2           | 2           | 0         | 7     |
| Bharat             | 3           | 4           | 0           | 0         | 7     |
| MRF                | 3           | 3           | 1           | 0         | 7     |
| Hero               | 3           | 0           | 3           | 1         | 7     |
| Maruti             | 3           | 4           | 0           | 0         | 7     |

### Consolidated findings of the study

| R-Squared Category<br>In % | >0.75       | 0.50 – 0.75 | 0.25 – 0.50 | <0.25     | Total |
|----------------------------|-------------|-------------|-------------|-----------|-------|
|                            | Very Strong | Strong      | Weak        | Very Weak |       |
| M&M                        | 14.28571429 | 28.57142857 | 57.14286    | 0         | 100   |
| Exide Industries           | 57.14285714 | 28.57142857 | 14.28571    | 0         | 100   |
| Ashok Leyland              | 57.14285714 | 42.85714286 | 0           | 0         | 100   |

|               |             |             |          |          |     |
|---------------|-------------|-------------|----------|----------|-----|
| Tata Motors   | 28.57142857 | 28.57142857 | 28.57143 | 14.28571 | 100 |
| Eicher Motors | 71.42857143 | 0           | 28.57143 | 0        | 100 |
| Amara         | 42.85714286 | 28.57142857 | 28.57143 | 0        | 100 |
| Apollo        | 28.57142857 | 57.14285714 | 14.28571 | 0        | 100 |
| Bajaj         | 100         | 0           | 0        | 0        | 100 |
| Bosch         | 14.28571429 | 57.14285714 | 28.57143 | 0        | 100 |
| Motherson     | 14.28571429 | 28.57142857 | 57.14286 | 0        | 100 |
| Tvs           | 42.85714286 | 28.57142857 | 28.57143 | 0        | 100 |
| Bharat        | 42.85714286 | 57.14285714 | 0        | 0        | 100 |
| MRF           | 42.85714286 | 42.85714286 | 14.28571 | 0        | 100 |
| Hero          | 42.85714286 | 0           | 42.85714 | 14.28571 | 100 |
| Maruthi       | 42.85714286 | 57.14285714 | 0        | 0        | 100 |

### Consolidated findings of the study

| R-Squared Category | v strong - strong | week - V week | Ranking |
|--------------------|-------------------|---------------|---------|
| M&M                | 42.86             | 57.14         | 5       |
| Exide Industries   | 85.71             | 14.29         | 2       |
| Ashok Leyland      | 100.00            | 0.00          | 1       |
| Tata Motors        | 57.14             | 42.86         | 4       |
| Eicher Motors      | 71.43             | 28.57         | 3       |
| Amara              | 71.43             | 28.57         | 3       |
| Apollo             | 85.71             | 14.29         | 2       |
| Bajaj              | 100.00            | 0.00          | 1       |
| Bosch              | 71.43             | 28.57         | 3       |
| Motherson          | 42.86             | 57.14         | 5       |
| Tvs                | 71.43             | 28.57         | 3       |
| Bharat             | 100.00            | 0.00          | 1       |
| MRF                | 85.71             | 14.29         | 2       |
| Hero               | 42.86             | 57.14         | 5       |
| Maruti             | 100.00            | 0.00          | 1       |
|                    | 1128.57           | 371.43        |         |
| In Percentage      | 75.24             | 24.76         |         |

\*Ranking as per calculations made through VAIC model.

As the R-squared value measures the degree to which the linear models developed in this study can describe the relationship between two variables, of the reliability of a linear relationship. A point system was established to quantify comparisons, a relationship with a value of R-squared >0.75 was assigned for four points; with a value of the R-squared = 0.5 – 0.75 for three points; with a value of

R-squared = 0.25 – 0.5 for two points; and with a value of R-squared <0.25 for one point. If there was no relationship established, no point was assigned(David x.cu.pdf, n.d.). The above results clearly indicate that the hypothesis is accepted and 75.24% the model suggest to be of good fit indicating that intellectual capital has a very significant influence on all variables indicating

financial performance of an enterprise in the automobile sector. The framework developed in the course of the study suggest that the disclosure requirement of a firm. The study identified the factors influencing enterprise intellectual capital measurement. The research proceeds with estimating the intellectual value for select automobile firms in India and ranked them as per the model ranking. The measurement later identified a very strong influence of intellectual capital on the financial performance of an enterprise in the automobile sector. Finally the study proposed an intellectual capital disclosure framework for the purpose of corporate governance.

## CONCLUSION

Companies achieve competitive advantage and better performance through the acquisition, holding and successive use of intangible assets which are essential for competitive benefits and strong economic performance(Hamdan, 2018).Therefore, it is essential to understand the effect of M/B, ROE, ROA and ATO on value capital and its component. The findings of this study illustrated that M/B, ROE, ROA and ATO and the aggregate measure of Value capital has a positive significant effect on. This suggests that increasing of VALUE CAPITAL leads to enhancing the market valuation, profitability and productivity. Therefore, it is essential for the firm to understand the impact of VALUE and utilize it efficiently.

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