



# PROFITABILITY AND LIQUIDITY ANALYSIS OF AUTOMOBILE INDUSTRY IN INDIA

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**Abstract:** The present study attempts to analyze the profitability and liquidity position of the Automobile Industry in India. Profitability and liquidity are the most prominent issues. The management of each organization should take studying and thinking about them into account as their most important duties. The concept of liquidity refers to the ability of a firm to meet its short-term obligations, and it plays a crucial role in the successful functioning of a business firm. A study of liquidity is one of the major importance to both the internal and external analysts because of its close relationship with day-to-day operations of a business. A weak liquidity position poses a threat to the solvency as well as profitability position of a firm and makes it unsafe and unsound. Profitability is a measure of the amount by which a firm's revenues exceeds its relevant expenses. Potential investors are interested in dividends and appreciation in market price of stock, so they pay more attention on the profitability ratios. Managers on the other hand are interested in measuring the operating performance in terms of profitability. Therefore, automobile industry has been selected for this study in order to determine its profitability and liquidity performance during the study period. In this study researcher focuses on Automobiles Industry such as Passenger Cars, LCV & HCV, Motor Cycles and Mopeds, Scooters and Three Wheelers and Tractors.

Key Words: Profitability and liquidity, Automobile Industry and Short term investments

## I. Introduction

Profitability is a concept based on profit. Since it is a relative concept; profit is expressed in relation to some other variables. The profit when expressed as a proportion to investments or sales shows the profitability of a firm. The greater the profit, the more efficient is the business considered to be. Thus, profitability is the primary measure of overall success and the necessary condition for the survival and growth of a firm. Profitability may be defined as the ability of a given investment to earn a return from its use. Profitability is a relative term and its measurement can be achieved by profit and its relation with the other objects by which the profit is affected. However, the return on investment (profitability) depends upon a number of factors such as size, growth rate, degree of leverage, cost of operation, age and diversification, etc. The financial literature reveals that various researchers have identified and tested a number of factors affecting the profitability of business enterprises.

## II. Statement of the Problem

Profitability is the indication of the efficiency with which the operations of the enterprise are carried on. The efficiency of the business is measured by the amount of profit. The greater of profit, the more efficient is the business considered to be. Poor operational performance may indicate poor sales and hence poor profits. Thus, profits are the soul of the business concern without which it is lifeless. The study confines itself to issues relating to the financial performance of some selected large scale automobile industries in India. It excluded non-financial areas such as productivity, marketing, personnel and research and development from its purview. Any research study can explore only a limited field of knowledge. There are many aspects need to be researched further.

In the present case also, there is significant scope for further research. Industry wise, firm distribution studies can be undertaken on various aspects of performance. Another interesting area to be explored is the financial performance of Indian automobile industry before and after the liberalization periods. Another interesting theme would be to identify sick and healthy units separately in the automobile industry and find out the discerning characteristics of each group with respect to profitability. The coverage of this study is limited to only five sectors of automobile industry in India. This can further be extended. This study has used financial facts of the selected companies from 2008-09 to 2017-18. The financial performance of sample companies is evaluated in terms of profitability, liquidity and analysis the financial health.

## III. Objectives of the Study

*The study is carried out with the following specific objectives:*

- 1) To study the profitability and liquidity position of the Automobile Industry in India.
- 2) To present summary of the study and to make appropriate suggestion for improvement in the competitive business world.

## IV. Research design

The automobile industry is purposively selected for the present study, considering its importance as the backbone of economic growth in any country. The database of CMIE has made compilation for more than eighty automobile companies of which only sixty eight companies have financial data for a continuous period of 10 years for the period 2012-13 to 2021-22. Owing to several constraints such as non-availability of financial statements or non-working of a company in a particular year, etc., the researcher classified five sectors of automobile industries. The criterion adopted for the selection of industry in the present study is based on the size of their total assets. Only, the companies which are having more than ten thousand crores turnover in the given financial period are selected for the purpose of the study. The following table shows that different automobile industry selected for the study.

**Table - I - Sample Design of the Automobile Industries in India**

S. No	Name of the Automobile Industries	Total Assets as on 31 <sup>st</sup> March 2022 (in Crores)
1	Passenger Cars	10965.26
2	LCVs & HCVs	58645.30
3	Motor Cycles & Mopeds	57955.43
4	Scooters & Three Wheelers	12590.07
5	Tractors	16348.07

*Source: Annual Reports of the Selected Automobiles Companies (Prowess, 2022)*

## V. Period of the Study

The period of study has been confined to ten years from 2012-13 to 2021-22.

## VI. Limitations of the study

1. The period covered under the study is ten years only (from 2012-13 to 2021-22).
2. The study solely depends on the published financial data, so it is subject to all limitations that are inherent in the condensed published financial statement.
3. As per requirement and necessity some data are grouped and sub grouped.
4. Also, in spite of being aware of the fact that inflation is so certain a factor, it could not be taken into consideration in the present study.

## VII. Review of Literature

It is compulsory to review the literature available with respect to the area of the research study. Measuring the performance of the corporate sector is always an area of controversies from the point of view of the government, shareholders, prospective investors, creditors, employees and any other stockholders. Several studies have been undertaken to evaluate the financial performance in the corporate sector. This chapter presents some of the studies conducted by financial analysis, profitability and liquidity.

**Pasupathi (2016)**<sup>1</sup> present paper examine the impact of assets utilization on profitability of Indian automobile industry. For the purpose of study seventeen Indian automobile industries has been selected. The study indicates that utilization of industry assets is the most influencing factor on profitability of Indian automobile industry. The results of the study indicate that fixed assets turnover ratio and profitability has shown a positive relationship. So, it indicates that high fixed assets turnover higher profitability. While the result of correlation of debtors turnover shows a highly positive association between debtors turnover ratio and return on capital employed and it is also found statistically insignificant. Inventory turnover ratio indicates a moderate degree of positive relation between variables. The partial regression co-efficient shown in the multiple regression equation of return on capital employed on fixed assets turnover ratio, inventory turnover ratio and debtors turnover ratio fitted in this study reveals that fixed assets turnover ratio, inventory turnover ratio and debtors turnover ratio made positive as well as very significant contribution towards improvement of the industry profitability. Debtors turnover ratio also statistically significant. Finally the analysis of multiple determinations make it clear that 65.70 per cent of total variation in the industry profitability was accounted for by the joint variation in the efficiency of fixed assets management, inventory management and receivables management. The study indicates that utilization of industry assets is the most influencing factor on profitability of Indian automobile industry.

**Shivam Mathur and Krati Agarwal (2016)**<sup>2</sup> examined and evaluate the "Financial analysis of automobile industries: A comparative study of Tata Motors and Maruti Suzuki" In this article, the researcher has selected two automobile companies in India. The main objective of this project is to analyze the financial position of the selected automobile companies for last three years (2012-2014). This study is based on secondary data. Financial position is analyzed by using different ratios. From the study, position of Maruti Suzuki and Tata Motors is ascertained. This project shows the change in profitability. He concluded the net sale of Maruti Suzuki is higher than net sales of Tata motors. It good for Maruti Suzuki and the gross profit of Maruti Suzuki is higher than Tata Motors. It reflects the Maruti has more sales and its proportion of debt is lower as compared to Tata Motors. Moreover the earning per share of Maruti Suzuki is also more than Tata Motors which shows Maruti Suzuki is earning more. Finally all the aspects, concern with this research, we can say that Maruti Suzuki is better than Tata Motors. He suggested that, the Tata Motors should be more versatile to capture more customer range which will help to increase its net sales in

comparisons to Maruti Suzuki. Tata Motors should try to decrease its direct expenses and increase sales in order to increase its gross profit and Maruti Suzuki has an increasing profit.

**Pryanka R Gowda and Manoj Kumara (2017)**<sup>3</sup> the paper measures the financial performance of major selected automobile companies for the period of five years from 2012-2016 by using ratio analysis. The purpose of the study is to evaluate and compare the financial performance of selected nine companies to rate their financial performances. The aim of the study is to analyze by comparing the risk of different companies, their rate of return, future trends and their strengths and weaknesses. Ratio analysis helps to compare the financial statements of the firms and comparison of financial performance also investigated over a period of time. Firms have made use of more borrowed funds. The study found the positive strong relationship between current ratio and quick ratio. It evolves the effective inventory management and conversion period leads to higher the liquidity power to the firm. Therefore, the study proves that there is a significant change in the mean value of financial ratios. Generally, the level of current ratio varies from industry to industry depending on the special industry characteristics. It clearly shows that the proportionate change of debt of selected automobiles firm do not influence or impact the firm's decision. Normally, the borrowed money yield a return higher than the interest, the difference in the profit earned and the interest paid, increase the return on equity.

**Pasupathi (2017)**<sup>4</sup> for the purpose of analysis all components have been pooled. Value is calculated in select pharmaceutical companies to analyze the production, sales and cost position of industry under study. 2005-06 has been chosen as the base year equal to 100. Index numbers have been calculated for the remaining years based on the base year. After going through the above research work the production and sales of pharmaceutical industry in India, it is found that there has been an increasing trend throughout the study period except in 2007-08 and 2009-10. The cost structure analysis also reveals a significant increasing trend during the study period and the difference between actual and trend values of production, sales and respective expenses. Chi-square test has been applied. The results of the analysis reveal that computed chi-square value is greater than the critical value. Hence, the hypothesis is rejected. It is concluded that "There is significant difference between actual and trend values of production, sales and respective expenses."

**Mohammed Perve (2017)**<sup>5</sup> the economic liberalization of Indian economy in 1991 gave the much needed thrust to the Indian textile industry, which has now successfully become one of the second largest in the world. There are many states like West Bengal, Tamil Nadu, Gujarat, Kerala and Maharashtra which are textile hub of the Country. Among them Maharashtra is one of the giants in the textile manufacturing and also the one to owe highest industrial outputs in the textile sector. There are abundant natural resources, skilled manpower and premiere Research and Development centers. Additionally bulk of raw material available is all responsible for pushing down the cost of textile industry. Due to all these favorable factors, it contributes highest Foreign Direct Investment in the country and highest contribution to India's Gross Domestic Product. This industry comprises of both Public and Private sector textile units. Though it is leading textile producing state but it is struggling hard to uphold and maintain its position. Therefore, it is important to check the impact of Solvency, liquidity and turnover on the financial performance of Public sector textile units in Maharashtra. In the present study researcher has identified various significant ratios to study the impact of firm's specific independent variables on financial performance of selected public textile units using multiple regression model.

**Varsha Gupta (2017)**<sup>6</sup> describes that, the Indian Textile industry has played a pioneered role in growth and upliftment of country. It is the sector that contributes approximately fourteen per cent to industrial production, four per cent to Gross Domestic Product and approximately thirteen per cent of total exports of the country. The objective of the study is to measure and compare the performance of selected

textile companies in India during last five years. The secondary data collected is analyzed using various statistical tools and techniques such as Ratio analysis and one way ANOVA. To measure the financial performance of selected textile companies, in terms of Managerial efficiency, Liquidity, Profitability and Solvency position of the companies, ratio analysis has been used. Further one way ANOVA has been used to identify if there exist a significant difference in the mean and performance of different textile companies. The results showed that there is significance difference in the Return on Capital Employed, Net Profit Margin, Current Ratio, Debt to Equity Ratio, and Fixed Asset turnover ratio of sample Textile companies at five per cent level of significance.

**Ranjithkumar and Eahambaram (2018)**<sup>7</sup> the present study is an attempt to ascertain the determinants of profitability of automobile industry in India by taking a sample of all the automobile firms covering various segments of automobile industry in India viz. commercial vehicles, three wheelers, two wheelers, and passenger vehicles which are listed on Bombay Stock Exchange (BSE), for a period of five years from 2013-14 to 2017-18. In order to achieve the objectives of the study, firm-specific factors viz. It was found that profitability of automobile industry in India is significantly influenced by the liquidity position of firm, growth of firm, inventory turnover ratio, debt equity ratio, and average payment period. Financial Performance helps in identifying the strengths and weakness of the firm and also helps in forecasting the short term and long term goals. The liquidity position of Industries is found to have good profitability position during the years. Attention has to be made on liquidity position of the Industries so as to increase its profitability position. Thus liquidity has an impact over the profitability position. Hence it is advisable for any Industries to maintain its rule of thumb so as to avoid any hard circumstances. It is also suggested to have tradeoff between liquidity and profitability because it is the outcome of composition of not only the current assets but funds invested in obtaining current assets too.

**Nithya and Divya Dharshini (2019)**<sup>8</sup> enumerated the study to expose "A Study on Financial Performance Analysis of Textile Industries in India". It is also taking adequate measures for the development of export oriented products, attracting new investments both domestic and foreign. Besides this sector has significant importance of employment generation, industrial, social and economical in nature. Hence, this study focuses on financial performance and analysis of top textile industries in India and also predicts the trend value of selected textile industry. This study would help the shareholders, the investors, policymakers, managers, researchers and people who are involved in financial decision. The study concludes that there is a significant difference in the financial performance of all textile industries in terms of growth rate, trend analysis and efficiency position. Welspun India Limited has been leading in all textile industries in terms of growth rate followed by Arvind Mills Limited, Raymond Limited. Arvind Mills Limited maintaining better position by keeping current assets level above current liabilities. The study is especially useful for the policy makers, textile companies, investors and researchers. The textile companies can use this study for better financial management.

**Jaganathan and Palanichamy (2019)**<sup>9</sup> in their study made an attempt to examine the growth and development of automobile industry in India. The study covers evaluation and facts about Indian automobile industry, growth and issues and challenges of automobile industry. They conclude the role of industry will primarily be in designing and manufacturing products of world class quality, establishing cost competitiveness and enhancing productivity in labour in capital. With a combined effort of manufactures and follow the governmental policies, the Indian Automotive Industry will arise as the destination of choice in the world for design and manufacturing of automobiles. They found main issues attributed to native market sentiments are raising fuel prices, highest interest rate and increase in prices due to higher commodity costs.

**Adegbie Folajimi Festus and Adesanmi Timilehin (2020)**<sup>10</sup> The study investigated the effect of liquidity management on corporate sustainability of the oil and gas companies in Nigeria. The study explored ex-post facto research design. The study revealed that corporate sustainability of quoted oil and gas companies in Nigerian was significantly affected by liquidity management. Results showed that liquidity management had a positive significant effect on profitability and liquidity management exhibited a positive significant impact on economic value added. The study concluded that liquidity management affected corporate sustainability of quoted oil and gas companies in Nigerian. The study recommended that shareholders, managers, policy makers, financial regulators and market participants should be mindful of companies' liquidity management and time lag between credit sales and collection of receivables as critical to the corporate sustainability companies. Managers should revisit cash conversion cycle policy time-lag, and ensure effective resource management because of their importance to corporate sustainability.

**Appah Ebimobowei, Onowu Joseph Uche and Tonye Young-Arney (2021)**<sup>11</sup> This study empirically examined liquidity and profitability ratios on the growth of profit of listed oil and gas firms in Nigeria. The study employed ex-post facto and correlation design and the data was obtained from the annual reports of sample companies for the period 2014 to 2019. The secondary data obtained from the published financial statements of the sampled firms were analyzed with descriptive, correlation matrix and multiple regressions. The results obtained from the multivariate analysis suggested that current ratio, acid test ratio, gross profit ratio, net profit ratio, net working capital, return on assets, return on equity and return on capital employed do positively and significantly affect the growth of profit of listed oil and gas firms in Nigeria. The study concluded that liquidity and profitability ratios influence the growth of companies. The study therefore made the following recommendations amongst others that firms should use financial ratios to measure the level of corporate profit growth to comprehend the conditions of firms which may eventually affect the investment decisions.

**Umar Heru Setiadi and Wawan Dhewanto (2022)**<sup>12</sup> The development of the energy industry in a developing country in Asia is undergoing a transition process from oil and gas energy to electrical energy and renewable energy. Based on Government data, the share of oil and gas will decrease from the current 32% to 20% in 2050, this is in line with the increase in penetration of electrification and other energy diversification. The company is facing several challenges that affect its business, especially in one of its domestic oil refineries. The study conclude, the company requires a business strategy to face the above business challenges in order to generate better profits and become more competitive in the future. This study aims to find the appropriate business strategy for the company. This study uses VRIO Analysis and Business Model Canvas to determine the company's internal business environment, using PESTLE and Porter's Five Forces to determine the company's external business environment. Finally, the result of the Quantitative Strategic Planning Matrix (QSPM) is Market Development. Market Development is the appropriate strategy for the company and was chosen as the first priority strategy, namely increase crude processing capacity & flexibility and upgrade refinery technology.

## VIII. Results and Discussions - Determinants of Profitability

As stated earlier, the independent variables (factors) were selected on the basis of their significance in existing theory and relevant past empirical studies. A total number of four independent variables were considered for the study. The analysis is based on the simple linear model wherein the profitability of a firm is determined by series of variables chosen both for their importance in our contest and in the case of measurement. The variables occurring in models and their measurements are described as under.

## 8.1 Variables Selected for Determinants of Profitability

**8.1.1 Profitability** - Return on capital employed and return on sales are widely used measures of profitability. The profit rates measured by sales will give a short-term perspective of profitability because sales are annual flows. The return on capital employed will give us long-term perspective of profitability. In this sense only one measure of long term profitability (return on capital employed) is used in the study.

**8.1.2 Size** - Size as measured refers to total assets employed in the business. It records more relevant since the organization under consideration is a capital intensive service oriented one. Growth in size is expected to reflect the direction of change in operating efficiency. Though positive relationship between size and profitability has been found to be significant, after a point of time, profitability increases at a rate with a proportional increase in size.

**8.1.3 Liquidity** - It refers to the ability of a firm to meet its short term obligations. If a company maintains excess liquidity, it would result in low profitability since extra funds hold up in liquid assets become idle investments. Such decisions involve a tradeoff between solvency and profitability. Thus, a negative relation between liquidity and profitability.

**8.1.4 Inventory turnover** - It indicates the number of times inventory is placed during the year. A high turnover implies good inventory management. But low inventory will adversely affect ability of a firm to meet customer demand and in turn will affect profitability. The sign of inventory co-efficient is ambiguous. Thus, there is a positive relationship between inventory turnover and profitability.

**8.1.5 Debt-Equity Ratio** - It refers to use of debt capital in the business and has a direct bearing on profitability, because of the tax deductibility of interest charges from the total income. Competition equalizes earnings, and then high debt should result in higher return on net worth. It is argued that firms have low debt because they operate in industries with high degree of business risk and thus expect a negative relation between equity and profitability.

## 8.2 Determinants of Profitability

### 8.2.1 Passengers Cars

*Ho: "There is no significant linear effect on profitability by the independent variables"*

In order to understand the influence of profitability linear multiple regression models were used. In the Table 1 multiple regression techniques have been applied. The table reveals that when the size has increased by one unit, the profitability decreased by -0.057 units which is not significant and it is have negative association with profitability. When the liquidity and inventory turnover ratio has increased by one unit, the profitability increased by 17.737 and 2.372 units respectively and this is significant at 5 per cent level. The debt equity ratio and profitability have positive association with coefficient of 19.383 which is statistically insignificant.

The multiple linear regression co-efficient if found to be statistically fit as R-square is 0.933. It shows that independent variable contributes about 93.3 per cent of the variation in the profitability of Passenger Cars and this is statistically significant at 5 per cent level. The F-Statistic and Durbin-Watson coefficient were 8.538 and 2.732 which is found to be significant. Hence, the hypothesis that, "There is no significant linear effect on profitability by the independent variables" is rejected. It concluded that liquidity and debt equity ratio are the strongest determinant variables of profitability of Passenger Cars.

### 8.2.2 LCVs/HCVs

In order to understand the influence of profitability linear multiple regression models were used. In the Table 2 multiple regression techniques have been applied. The table reveals that when the size has increased by one unit, the profitability decreased by -0.022 units which is not significant and it is have

negative association with profitability. When the liquidity has increased by one unit, the profitability decreased by -21.484 units this is also insignificant. The inventory turnover ratio has increased by one unit, the profitability increased by 6.144 units and this is significant at 10 per cent level. The debt equity ratio and profitability have negative association with coefficient of -1.868 which is statistically insignificant.

The multiple linear regression co-efficient if found to be statistically fit as R-square is 0.764. It shows that independent variable contributes about 76.4 per cent of the variation in the profitability of LCVs / HCVs and this is statistically significant at 10 per cent level. The F-Statistic and Durbin-Watson coefficient were 4.047 and 1.831 which is found to be significant. Hence, the hypothesis that, "There is no significant linear effect on profitability by the independent variables" is rejected. It concluded that inventory turnover ratio is the strongest determinant variables of profitability of LCVs / HCVs.

### 8.2.3 Motorcycles and Mopeds

In order to understand the influence of profitability linear multiple regression models were used. In the Table 3 multiple regression techniques have been applied. The table reveals that when the size has increased by one unit, the profitability increased by 0.056 units which is not significant and it is have positive association with profitability. When the liquidity has increased by one unit, the profitability increased by 21.544 units this is also insignificant. The inventory turnover ratio has increased by one unit, the profitability increased by 2.083 units and this is significant at 10 per cent level. The debt equity ratio and profitability have positive association with coefficient of 13.181 which is statistically insignificant.

The multiple linear regression co-efficient if found to be statistically fit as R-square is 0.712. It shows that independent variable contributes about 71.2 per cent of the variation in the profitability of Motorcycles and Mopeds and this is statistically significant at 10 per cent level. The F-Statistic and Durbin-Watson coefficient were 1.886 and 2.196 which is found to be significant. Hence, the hypothesis that, "There is no significant linear effect on profitability by the independent variables" is rejected. It concluded that inventory turnover ratio is the strongest determinant variables of profitability of Motorcycles / Mopeds.

### 8.2.4 Scooter and Three Wheelers

In order to understand the influence of profitability linear multiple regression models were used. In the Table 4 multiple regression techniques have been applied. The table reveals that when the size has increased by one unit, the profitability increased by 0.634 units which is significant at 5 per cent level and it is have positive association with profitability. When the liquidity has increased by one unit, the profitability decreased by -17.450 units this is also significant at 1 per cent level. The inventory turnover ratio has increased by one unit, the profitability increased by 1.526 units and this is significant at 10 per cent level. The debt equity ratio and profitability have negative association with coefficient of -0.271 which is statistically insignificant.

The multiple linear regression co-efficient if found to be statistically fit as R-square is 0.919. It shows that independent variable contributes about 91.9 per cent of the variation in the profitability of Scooter and Three Wheelers and this is statistically significant at 10 per cent level. The F-Statistic and Durbin-Watson coefficient were 14.227 and 2.218 which is found to be significant. Hence, the hypothesis that, "There is no significant linear effect on profitability by the independent variables" is rejected. It concluded that total assets and inventory turnover ratio are the strongest determinant variables of profitability of Scooter / Three Wheelers.

### 8.2.5 Tractors

In order to understand the influence of profitability linear multiple regression models were used. In the Table 5 multiple regression techniques have been applied. The table reveals that when the size has increased by one unit, the profitability decreased by -0.654 units which is significant at 10 per cent level and

it is have negative association with profitability. When the liquidity has increased by one unit, the profitability decreased by -1.565 units this is insignificant. The inventory turnover ratio has increased by one unit, the profitability increased by 3.454 units and this is significant at 1 per cent level. The debt equity ratio and profitability have positive association with coefficient of 0.884 which is statistically insignificant.

The multiple linear regression co-efficient if found to be statistically fit as R-square is 0.813. It shows that independent variable contributes about 81.3 per cent of the variation in the profitability of Tractors and this is statistically significant at 5 per cent level. The F-Statistic and Durbin-Watson coefficient were 5.430 and 1.873 which is found to be significant. Hence, the hypothesis that, "There is no significant linear effect on profitability by the independent variables" is rejected. It concluded that inventory turnover ratio and debt equity ratio are the strongest determinant variables of profitability of Tractors.

### Suggestion and Recommendations

*The following recommendations were provided:*

1. The researcher recommends that firms should maintain a moderate level of liquidity that does not threaten their going concern status, and yet allows them to make adequate profits on their investments.
2. The company is advised to use financial ratios to measure the level of corporate profit growth to know the condition of the company which can eventually affect the investors in investing.
3. The investors suggested doing the analysis of the company's financial statements by using financial ratios that related to the growth of profit so it can determine the amount of investment in the future.
4. For further researchers who want to do similar research, it is suggested you should increase the number of samples used, extend the period of time and add others variable independent in order to provide a more accurate conclusion.
5. The industry can try to increase the availability of liquid cash.
6. The investment of cash can be increased as it will improve the profitability of the industry.
7. The industry can also consider investing some amount in various debt instruments as it will allow the funds to be distributed more evenly.
8. It is advisable to utilize the existing cash and bank balances to pay off a company's current obligation, as per the working capital instead of spending more on investment proposals.
9. The government should take necessary steps to creating employment in the automobile industry by encouraging indigenous manufacturing companies with technology transfer rather permitting too many foreign companies.

### Conclusions

The growth and development of the organization is highly depending on financial position. The Profitability position of the industry is satisfactory. The operating efficiency of the Automobile Industry is good. Hence the performance should be continued and improvement to be made in order to attain the objectives of the concern which paves the way to have the result in attaining the competitive advantage. After analyzing and interpreting the above calculations, it is found that the Liquidity position of the company is fair. Hence steps can be taken in order to increase assets and liabilities to meet the short term obligations. This will have the advantage of relieving the burden of interest payment. Thus, the share capital will help the companies to earn a surplus. Conversion of loan into equity capital will not only reduce the interest burden, but also relieve the companies in the matter of repayment of loans to creditors. This will improve the financial performance, thereby enabling them to raise enough internal sources to finance their expansion programmes. From the economic point of view, transportation is a vital factor for steady economic growth and development. The trade facilitated by transportation has been a growing

component of national income in all the countries. Studies show that the contribution of transportation in GDP has a positive impact.

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Table 1

## DETERMINANTS OF PROFITABILITY IN PASSENGER CARS

Dependent Variable: Return on Capital Employed (ROCE)

Variable	Beta Co-efficient	t-value	Significant
Constant	-54.066	-4.120	Significant *
Size	-0.057	-0.640	Not Significant
Liquidity	17.737	3.415	Significant **
Inventory Turnover Ratio	2.372	3.347	Significant **
Debt-Equity Ratio	19.383	1.556	Not Significant
<b>* Significant at the 0.01 level; ** Significant at the 0.05 level</b>			
Multiple R	0.933	Std Error Estimated	1.993
R <sup>2</sup>	0.870	Durbin Watson	2.732
Adjusted R <sup>2</sup>	0.770	F-Value	8.538

Sources: Computed

Table 2

## DETERMINANTS OF PROFITABILITY IN LCVs/ HCVs

Dependent Variable: Return on Capital Employed (ROCE)

Variable	Beta Co-efficient	t-value	Significant
Constant	-11.480	-0.158	Significant *
Size	-0.022	-0.197	Not Significant
Liquidity	-21.484	-0.810	Not Significant
Inventory Turnover Ratio	6.144	1.776	Significant ***
Debt-Equity Ratio	-1.868	-0.123	Not Significant
<b>* Significant at the 0.01 level; *** Significant at the 0.10 level</b>			
Multiple R	0.874	Std Error Estimated	3.267
R <sup>2</sup>	0.764	Durbin Watson	1.831
Adjusted R <sup>2</sup>	0.575	F-Value	4.047

Sources: Computed

Table 3

## DETERMINANTS OF PROFITABILITY IN MOTORCYCLES &amp; MOPEDS

Dependent Variable: Return on Capital Employed (ROCE)

Variable	Beta Co-efficient	t-value	Significant
Constant	-47.236	-1.510	Significant *
Size	0.056	0.201	Not Significant
Liquidity	21.544	1.037	Not Significant
Inventory Turnover Ratio	2.083	1.500	Significant ***
Debt-Equity Ratio	13.181	0.503	Not Significant
<b>* Significant at the 0.01 level; *** Significant at the 0.10 level</b>			
<b>Multiple R</b>	0.776	<b>Std Error Estimated</b>	5.103
<b>R<sup>2</sup></b>	0.712	<b>Durbin Watson</b>	2.196
<b>Adjusted R<sup>2</sup></b>	0.707	<b>F-Value</b>	1.886

Sources: Computed

Table 4

## DETERMINANTS OF PROFITABILITY IN SCOOTER AND THREE WHEELERS

Dependent Variable: Return on Capital Employed (ROCE)

Variable	Beta Co-efficient	t-value	Significant
Constant	8.998	0.538	Not Significant
Size	0.634	1.759	Significant **
Liquidity	-17.450	-1.903	Significant *
Inventory Turnover Ratio	1.526	1.598	Significant ***
Debt-Equity Ratio	-0.271	-0.041	Not Significant
<b>* Significant at the 0.01 level; ** Significant at the 0.05 level; *** Significant at the 0.10 level</b>			
<b>Multiple R</b>	0.959	<b>Std Error Estimated</b>	3.035
<b>R<sup>2</sup></b>	0.919	<b>Durbin Watson</b>	2.218
<b>Adjusted R<sup>2</sup></b>	0.855	<b>F-Value</b>	14.227

Sources: Computed

Table 5

## DETERMINANTS OF PROFITABILITY IN TRACTORS

Dependent Variable: Return on Capital Employed (ROCE)

Variable	Beta Co-efficient	t-value	Significant
Constant	9.400	0.478	Not Significant
Size	-0.654	-2.267	Significant ***
Liquidity	-1.565	-0.236	Not Significant
Inventory Turnover Ratio	3.454	3.428	Significant *
Debt-Equity Ratio	0.884	0.090	Not Significant
* Significant at the 0.01 level; *** Significant at the 0.10 level			
Multiple R	0.902	Std Error Estimated	2.575
R <sup>2</sup>	0.813	Durbin Watson	1.873
Adjusted R <sup>2</sup>	0.794	F-Value	5.430

Sources: Computed

