



PROFITABILITY ANALYSIS OF INDIAN AUTOMOBILE INDUSTRY IN INDIA

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Abstract

The automobile industry is one of the key drivers that boost the economic growth of the country. Since the de-licensing of the sector in 1991 and the subsequent opening up of 100 percent FDI through automatic route, Indian automobile sector has come a long way. India is the second most populated country in the World, and the growth rate of Indian economy is very high which indicates the presence of huge demand in different industrial sectors. Performance analysis is the process of determining the operating and financial characteristics of a firm from accounting and financial statements. Objectives of the study, To measure the profitability and also to analyze the effects of various factors on the profitability of Indian Automobile Industry. Methodology of the study, the financial data and information required for the study were drawn from the secondary sources. The Prowess corporate databases developed by Centre for Monitoring Indian Economy (CMIE) and Capital Line Plus (CLP) have been used as principal sources. The other relevant data were collected from Journals, Magazines, Websites and Dailies. Suggestions of the study, Government may form a research and development wing, which may be with the industries and it should encourage industries for identifying alternative sources for fuel. Conclude this study, The Indian automobile industry has a prominent future in India. Apart from meeting the advancing domestic demands, it is penetrating the international market too.

Keywords: Profitability, Correlation, Automobile Etc.

Introduction

The automobile industry is one of the key drivers that boost the economic growth of the country. Since the de-licensing of the sector in 1991 and the subsequent opening up of 100 percent FDI through automatic route, Indian automobile sector has come a long way. Today, almost every global auto major has set up facilities in the country. Austria based motorcycle manufacturer KTM, the established makers of Harley Davidson from the US and Mahindra & Mahindra have set up manufacturing bases in India. Furthermore, according to internal projections by Mercedes Benz Cars, India is set to become Mercedes Benz's fastest-growing market worldwide ahead of China, the US and Europe. As per the data published by Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce, Government of India, the cumulative FDI inflows into the Indian automobile industry during April 2000 to October 2013 was noted to be US\$ 9,079 million, which amounted to 4% of the total FDI inflows in terms of US \$. The production of compact superbikes is also expected to take place in India. The country has a mass production base of 16 million two-wheelers and the several global as well as Indian bike makers are looking forward to use it as an advantage in order to roll out sports bikes in the 250 cc capacity. The world standing for the Indian automobile sector, as per the Confederation of the Indian industry is as ,Largest three-wheeler market, Second largest two-wheeler market, Tenth largest passenger car market, Fourth largest tractor market, Fifth largest commercial vehicle market and Fifth largest bus and truck segment However, the year 2015-2016 has seen a decline in the industry's otherwise smooth-running growth. High inflation, soaring interest rates, low consumer sentiment and rising fuel prices along with economic slowdown are the major reason for the downturn of the industry. Except for the two-wheelers; all other segments in the industry have been weakening. There is a negative impact on the automakers and dealers who offered high discounts in order to push sales. To match the decline in demand, automakers have resorted to production cuts and lay-offs, due to which capacity utilization for most automakers remains at a dismal level. Despite the comprehensive market being under extreme burden, the luxury car market has observed a robust double-digit hike during the year 2015-2016, as a result of rewarding new launches at compelling lower price points. Further, with the measured increases in the price of diesel, the overall market continues to shift towards petrol-fuelled cars. This has led to the growth in sales of the 'Mini' segment of the PV market by of 5.5%

Statement of the Problem

The Indian Automobile Industry after de-licensing has grown at an average of 17 per cent in the last few years (Automobile Mission Plan). The overall Automobile production for April-March 2012 showed a growth of 13.83 per cent. In 2011, the output grew at 6.83 per cent. In 2011-12, the industry made 20,366,432 vehicles of two wheelers, passenger vehicles, three wheelers and commercial vehicles which constituted 76 per cent, 15 per cent, 4 per cent and 4 per cent respectively (SIAM, 2012).

India is the second most populated country in the World, and the growth rate of Indian economy is very high which indicates the presence of huge demand in different industrial sectors. Automobile Industry is not an exception in this regard. Indian automobile sector has huge demand from its own country. This demand also attracts the giant automobile suppliers throughout the world to come and invest in the Indian Automobile Industry. Due to the contribution of many different factors like sales



incentives, introduction of new models as well as variants coupled with easy availability of low cost finance with comfortable repayment options, demand and sales of automobiles are rising continuously. The Government has also contributed in this growth by liberalizing the norms for foreign investment and import of technology and that appears to have benefitted the automobile sector. According to Reserve Bank of India, FDI is the process whereby residents of one country (the home country) acquire ownership of assets for the purpose of controlling the production, distribution and other activities of a firm in another country (the host country).

Scope of the Study

Performance analysis is the process of determining the operating and financial characteristics of a firm from accounting and financial statements. The goals of such analysis are to determine the liquidity, profitability, efficiency and solvency position. The analysis attempts to measure the firm's operating performance, profitability, liquidity, solvency etc., to prove the financial position during study period in Indian Automobile Industry.

Selection of Automobile Industry

Indian Automobile Industry accounts for 7 % of total FDI in India (RBI, FDI Factsheet). The Automobile Industry has a unique place in the economy of India. It contributes to the industrial production, employment and earning sources of livelihood of thousands of people. Its exports contribute to a substantial part of India's earning from foreign countries. The healthy development and rapid growth of this industry has always been very important for the Indian economy. Hence the study of the financial performance of the Automobile Industry has been selected.

Objectives of the Study

To fulfill the above status, this study has the following objectives.

1. To measure the profitability and also to analyze the effects of various factors on the profitability of Indian Automobile Industry.
2. To give suitable suggestions to improve the profitability of the automobile sector. . Significance of the study According to the CMIE (Centre for Monitoring Indian Economy), the Automobile Industry has a significant presence in the economic life of India. It plays a pivotal role through its contribution to industrial output, employment generation and export earnings of the country. The Indian Automobile Industry is extremely varied with major sectors such as the two & three wheelers, Passenger cars, Commercial vehicles (Heavy CVs/ Medium CVs/Light CVs), Utility vehicles (UVs) and Tractors.
3. Even though many studies have been conducted to know the financial performance, the present one will be of great significance to many. It will be helpful in understanding the pattern and the structure of the financial variables of leading companies apart from identifying the financial relationship of companies with their respective Industry. The change in the economic policy of the government certainly has got an impact on the performance of corporate units in India. A need at the present juncture is therefore felt to study the impact of such changes on the performance of corporate sector and hence the research problem has to be focused on "Financial Performance of the Indian Automobile Industry

Hypotheses of the Study

With the above objectives, the following hypotheses have been formulated and experienced during the study period.

1. Profitability does not differ among select companies in Indian Automobile Industry.
2. Liquidity, Profitability, Efficiency and Solvency do not differ between in Indian Automobile Industry.

Research Methodology

The design of the present study is descriptive, analytical and conclusive. It is the procedure of condition and analysis of data in a manner that aims to combine reference to the research purpose. It is the conceptual structure within which the research is conducted. In other words it is a blue print that is followed in completing a study that guides collection and analysis of data. The financial data and information required for the study were drawn from the secondary sources. The Prowess corporate databases developed by Centre for Monitoring Indian Economy (CMIE) and Capital Line Plus (CLP) have been used as principal sources. The other relevant data were collected from Journals, Magazines, Websites and Dailies. The period for this study covered ten years. Foreign Investment was increasing in Indian Automobile Industry from 2006 onwards (UNCTAD, World Investment Report 2012). So, to know the impact of Foreign Direct Investment on financial performance, the period is ten years. The financial year starts from 1st April to 31st March every year. The companies under Automobile Industry are classified into four sectors namely; Commercial Vehicles, Passenger Cars, Scooters and Three Wheelers and Motorcycles and Mopeds. In the initial stage the researcher has decided to include all the 48 companies under Automobile Industry working



before or from the year 1998 to 2012. But, owing to several constraints such as non-availability of financial statements or non-working of a company in a particular year etc., it is compelled to restrict the number of sample companies to 6. The study is based on purposive sampling method, making a study of six companies in Indian Automobile Industry. The list of companies included in the present study is presented in the following Table.

The List of Indian Automobile Companies Included In the Present Study

S.No	Companies	Sectors	Code
1	Ashok Leyland	LCVs / HCVs	C1
2	Force Motors Ltd	LCVs / HCVs	C2
3	Hero MotoCorp Ltd	Motorcycles / Mopeds	C3
4	Majestic Auto Ltd	Motorcycles / Mopeds	C4
5	SML ISUZU Ltd	LCVs / HCVs	C5
6	Tata Motors Ltd	LCVs / HCVs	C6

Analysis of Profitability Performance of Sample Firms of Auto Mobile Industries in India

Correlation Analysis

Correlation analysis was used in the present study to assess the relationship that exists between two variables. To calculate the correlation co-efficient of the selected companies, 'Net Profit' was treated as dependent variable and ten other ratios as listed in the following table were treated as independent variables. The correlation was calculated to identify the most important variable, which had relationship with the dependent variable. Also, the correlation co-efficient among the different variables had been worked out so as to arrive at a correlation, which incorporated correlation co-efficient of all the selected variables with the dependent variable, as well as correlation coefficients among different independent variables.

Correlation Analysis –Dependent Variable: Net Profit

S.No.	Kinds of Ratio	Ashok Leyland		Force Motors Ltd		Sml Isuzu Ltd	
		r value	p.value	r value	p.value	r value	p.value
X ₁	Quick Ratio	.691	.013*	.696	.013	.326	.035
X ₂	Cash Ratio	.719	.010*	.735	.008	-.593	.015
X ₃	Inventory Turnover Ratio	-.185	.304	.578	.040	.683	.081
X ₄	Debtors Turnover Ratio	.438	.103	.870	.001	-.478	.000
X ₅	Fixed Asset Turnover Ratio	.637	.024*	.646	.022	.884	.076
X ₆	Total Asset Turnover Ratio	.203	.287	.127	.363	-.489	.075
X ₇	Ratio Of Current Assets To Proprietary Fund	.838	.001**	-.712	.010	.490	.070
X ₈	Debt Equity Ratio	-.817	.002**	-.826	.002	-.502	.000
X ₉	Long Tern Debt Equity Ratio	-.542	.053*	-.848	.001	-.886	.008
X ₁₀	Equity Ratio	-.433	.106	.925	.000	-.730	.008
X ₁₁	Interest Coverage Ratio	.727	.009**	.384	.137	.326	.007

Source: Calculated using the ratios

**P<0.01 *P<0.05



The above Table presented the correlation coefficient matrices of the selected variables with the dependent variable, i.e., net profit of Ashok Leyland for the study period from 2007-08 to 2016-17. In Ashok Leyland POLARIES it was observed that seven variables namely X₁ (QUICK RATIO), X₂ (CASH RATIO), X₄ (DEBTORS TURNOVER RATIO), X₅ (FIXED ASSET TURNOVER RATIO), X₆ (TOTAL ASSET TURNOVER RATIO), X₇ (RATIO OF CURRENT ASSETS TO PROPRIETARY FUND), and had significant positive correlation with company profitability and the coefficients were .691, .719, .438, .637, .203, and .838 respectively and the remaining four variable namely X₃ (INVENTORY TURNOVER RATIO), X₈ (DEBT EQUITY RATIO), X₉ (LONG TERM DEBT EQUITY RATIO) X₁₀ (EQUITY RATIO) had significant but negative correlation with profitability and the coefficients were -.185, -.817, -.542 and -.433 respectively. It presented the correlation coefficient matrices of the selected variables with the dependent variable, i.e., net profit of Force Motors Ltd for the study period from 2007-08 to 2016-17. In Force Motors Ltd it was observed that eight variables namely X₁ (QUICK RATIO), X₂ (CASH RATIO), X₃ (INVENTORY TURNOVER RATIO), X₄ (DEBTORS TURNOVER RATIO), X₅ (FIXED ASSET TURNOVER RATIO), X₆ (TOTAL ASSET TURNOVER RATIO), X₁₀ (EQUITY RATIO) and X₁₁ (INTEREST COVERAGE RATIO) had significant positive correlation with company profitability and the coefficients were .696, .735, .578, .870, .646, .127, .925 and .384 respectively and the remaining four variable namely X₇ (RATIO OF CURRENT ASSETS TO PROPRIETARY FUND), X₈ (DEBT EQUITY RATIO) and X₉ (LONG TERM DEBT EQUITY RATIO) had significant but negative correlation with profitability and the coefficients were -.712, -.826, and -.848 respectively. It shows that, presented the correlation coefficient matrices of the selected variables with the dependent variable, i.e., net profit of SML ISUZU LTD for the study period from 2007-08 to 2016-17. In SML ISUZU LTD it was observed that five variables namely X₁ (QUICK RATIO), X₂ (CASH RATIO), X₃ (INVENTORY TURNOVER RATIO), X₅ (FIXED ASSET TURNOVER RATIO), X₆ (TOTAL ASSET TURNOVER RATIO), and X₇ (RATIO OF CURRENT ASSETS TO PROPRIETARY FUND) and X₁₁ (INTEREST COVERAGE RATIO) had significant positive correlation with company profitability and the coefficients were .326, .683, .884, .490, and .326 respectively and the remaining four variable namely X₄ (DEBTORS TURNOVER RATIO), X₈ (DEBT EQUITY RATIO), X₉ (LONG TERM DEBT EQUITY RATIO) and X₁₀ (EQUITY RATIO) had significant but negative correlation with profitability and the coefficients were -.593, -.478, -.489, -.502, -.886, and -.730 respectively.

Correlation Analysis – Dependent Variable: Net Profit

S.No.	Kinds of Ratio	Tata Motors Ltd		Hero Motor Corp.Ltd		Majestic Auto Ltd	
		r value	p.value	r value	p.value	r value	p.value
X ₁	Quick Ratio	.959	.000	.959	.000	.860	.001
X ₂	Cash Ratio	.488	.076	.488	.076	.913	.000
X ₃	Inventory Turnover Ratio	.376	.142	.376	.142	-.137	.353
X ₄	Debtors Turnover Ratio	.750	.006	.750	.006	-.208	.282
X ₅	Fixed Asset Turnover Ratio	.863	.001	.863	.001	-.662	.018
X ₆	Total Asset Turnover Ratio	.180	.500	.180	.500	-.701	.012
X ₇	Ratio Of Current Assets To Proprietary Fund	.986	.000	.986	.000	-.482	.079
X ₈	Debt Equity Ratio	-.805	.002	-.805	.002	-.659	.019
X ₉	Long Term Debt Equity Ratio	-.433	.106	-.433	.106	-.129	.361
X ₁₀	Equity Ratio	-.886	.000	-.886	.000	.818	.002
X ₁₁	Interest Coverage Ratio	.921	.000	.921	.000	-.524	.060

Source: Calculated using the ratios

**P<0.01 *P<0.05



The above Table presented the correlation coefficient matrices of the selected variables with the dependent variable, i.e., net profit of Tata Motors Ltd., for the study period from 2007-08 to 2016-17. In Tata Motors Ltd., it was observed that five variables namely X_1 (QUICK RATIO), X_2 CASH RATIO, X_3 (INVENTORY TURNOVER RATIO), X_4 (DEBTORS TURNOVER RATIO) X_5 (FIXED ASSET TURNOVER RATIO), X_6 (TOTAL ASSET TURNOVER RATIO), X_7 (RATIO OF CURRENT ASSETS TO PROPRIETARY FUND) and (INTEREST COVERAGE RATIO) had significant positive correlation with company profitability and the coefficients were .959, .488, .376, .750, .863, .180, .986, and .921 respectively and the remaining four variables namely, X_7 (RATIO OF CURRENT ASSETS TO PROPRIETARY FUND), X_8 (DEBT EQUITY RATIO) and X_9 (LONG TERM DEBT EQUITY RATIO) and X_{10} (EQUITY RATIO) had significant but negative correlation with profitability and the coefficients were -.805, -.433, and -.886 respectively. The above Table presented the correlation coefficient matrices of the selected variables with the dependent variable, i.e., net profit of Hero Motor Corp. Ltd for the study period from 2007-08 to 2016-17. In Hero Motor Corp. Ltd it was observed that eight variables namely X_1 (QUICK RATIO), X_2 CASH RATIO, X_3 (FIXED ASSET TURNOVER RATIO), X_4 (TOTAL ASSET TURNOVER RATIO), X_5 (RATIO OF CURRENT ASSETS TO PROPRIETARY FUND), X_6 (INTEREST COVERAGE RATIO), X_7 (EQUITY RATIO) and X_8 (INTEREST COVERAGE RATIO) had significant positive correlation with company profitability and the coefficients were .792, .289, .094, .187, .295, .076, .430, and .448 respectively and the remaining four variables namely X_3 (INVENTORY TURNOVER RATIO), X_4 (DEBTORS TURNOVER RATIO) and X_8 had significant but negative correlation with profitability and the coefficients were -.153, -.627, and -.867 respectively. The above Table presented the correlation coefficient matrices of the selected variables with the dependent variable, i.e., net profit of MAJESTIC AUTO LTD for the study period from 2007-08 to 2016-17. In MAJESTIC AUTO LTD it was observed that three variables namely X_1 (QUICK RATIO), X_2 CASH RATIO, and X_{10} (EQUITY RATIO) had significant positive correlation with company profitability and the coefficients were .860, .913 and .818 respectively and the remaining four variables namely X_3 (INVENTORY TURNOVER RATIO), X_4 (DEBTORS TURNOVER RATIO) X_5 (FIXED ASSET TURNOVER RATIO), X_6 (TOTAL ASSET TURNOVER RATIO), X_7 (RATIO OF CURRENT ASSETS TO PROPRIETARY FUND), X_8 (DEBT EQUITY RATIO), X_9 (INTEREST COVERAGE RATIO), and X_{11} (INTEREST COVERAGE RATIO) had significant but negative correlation with profitability and the coefficients were -.137, -.208, -.662, -.701, -.482, -.659, -.129, and -.524 respectively.

Suggestions of the Study

Keeping in view the above findings relating to the study, the following measures are suggested which would go a long way to get better performance of Indian automobile industry.

1. The profitability was decreasing during the study period. Therefore, it is suggested that all the selected industries should undertake cost control measures further so that increased profit margin of the companies may enhance the earnings.
2. The few companies, which did not follow a definite policy of financing fixed assets, should follow long term sources of finance.
3. To strengthen the financial efficiency, long-term funds have to be used to finance on core current assets and a part of temporary current assets. It is better if the companies can reduce the oversized short term loans and advances and eliminate the risk by arranging finance regularly.
4. Improper planning and delays in implementation of projects lead to a rise in their cost. So proper planning should be done to standardize and optimize the use of cash balance, proper techniques may be adopted for planning and control of cash. The investments in inventories should be reduced.
5. Government may form a research and development wing, which may be with the industries and it should encourage industries for identifying alternative sources for fuel.
6. Apart from the policies introduced by the government for the auto industry, the Government of India may take measures to reduce the tax levied. This may lead to reduction in excise duty on specific parts supplied to manufacturers of electrical and hybrid vehicles which will promote the growth of environment-friendly cars.

Conclusion

The Indian automobile industry has a prominent future in India. Apart from meeting the advancing domestic demands, it is penetrating the international market too. Favored with various benefits such as globally competitive auto-ancillary industry; production of steel at lowest cost; inexpensive and high skill manpower; entrenched testing and R & D centers etc., the industry provide immense investment and employment opportunities. Automobile sector has huge demand in our country. This demand attracts the giant automobile suppliers throughout the world to come and invest in the Indian Automobile Industry. Due to the contribution of many different factors like sales incentives, introduction of new models as well as variants coupled with easy availability of low cost finance with comfortable repayment options, demand and sales of automobiles are



rising continuously. Today, this sector has emerged as a sunrise sector. It should continue the importance given to this industry to have a better growth of our economy.

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