



An In-Depth Examination of The Assessment of Financial Performance In Indian Automobile Companies, Focusing on Critical Analysis.

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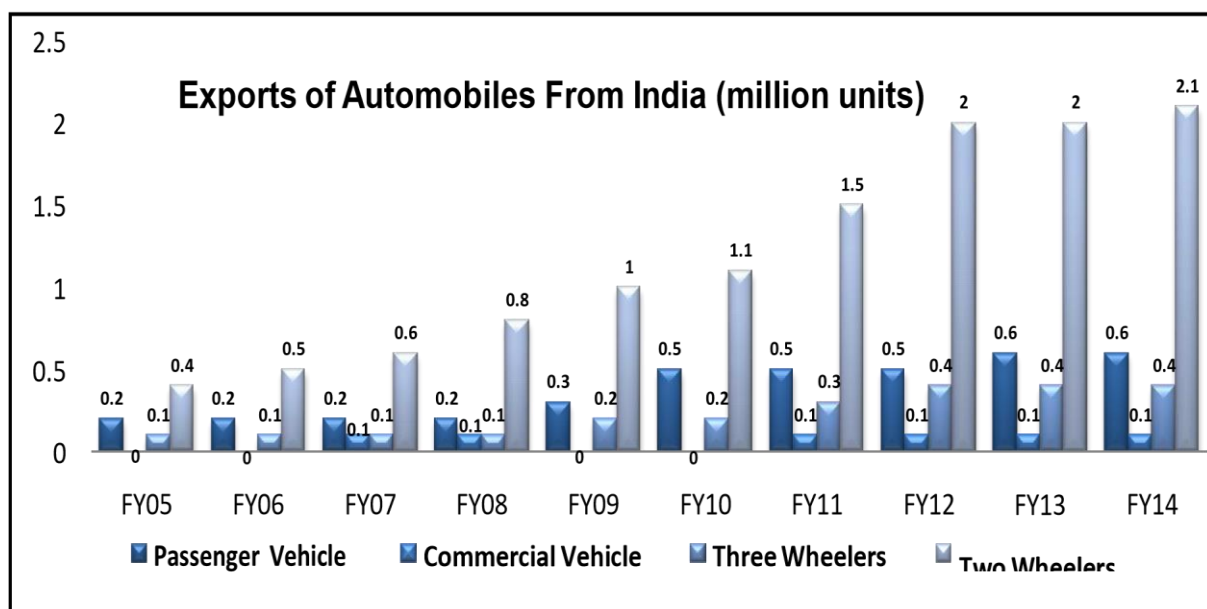
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Abstract

The automobile sector plays a crucial role in the economic development of developing countries. Financial Performance Analysis aims to identify the financial and operational constraints of a company through examination of its accounting and financial statements. Researchers endeavor to highlight both low and high performance in liquidity, profitability, solvency, and overall financial stability. This study primarily relies on secondary data obtained from sources such as the ET 500 ranks and other relevant publications. An eight-year timeframe from 2007-08 to 2014-15 is utilized to draw conclusions. The research specifically evaluates the financial stability of selected private sector companies within the automobile industry, without comparison to other industries or sectors. The findings of this research can assist stakeholders in making informed investment decisions by providing insights into the actual performance of the Indian automobile industry.

Introduction

The automobile sector is considered to be most important for an economic development. The general conception is that, increasing in financial performance will impact on organisational performance. The analysis of annual statements is a process of examining the relationship between the understanding of firm's financial position and performance. Figure-1 deals with the growth of automobile sector in India in terms of exports. It shows that automobile sector in India resulted positive operational efficiency towards comparative growth in production. This research paper will evolve anticipated inputs to the firm is to assist strategic thinkers pay attention to the appropriate actions that apply latent and strong affect on their automobile performance. This research facilitates a comprehensive model for examining the financial performance of automobile performance and the major findings of this research will give a important parameters and helps to fill a similar gaps in the literature.



(Metcalf.R.W & P. L. Titard, 1976) It identifies and evaluating the financial stability and weakness of the companies by establishing relationship between financial statements and performance. (Meigs W.B et al., 1978) Financial Analysis is a process of selection, relation, comparison and evaluation of financial stability of a firm. The financial performance analysis helps to know the liquidity, cash flow ability, future earnings and financial condition of the firm. In order to examining the financial condition and performance of a firm analyst preferably depends on certain tools to evaluate

financial statements. One of the most important widely used by the analyst and used as powerful tools is Ratio Analysis. Figure – 2 shows reliability of the financial analysis. It considers the relevance of financial ratios in five parameters.



AUTOMOBILE INDUSTRY IN INDIA

The Indian automobile industry has performed an uptick in sales. During the period from April 2000 to Feb 2015, the Automobile Industry has attracted FDI of US \$12,232.06 million as per the data announced by Department of Industrial Policy and Promotion (DIPP). The government of India support and encourage FDI allows 100% in Automobile sector. Excise duty on Automobile reduced from 12% to 8% to boost the ‘Make in India’. Initiatives are taken from government of India to boost domestic market and international market position.

Table - 1 Domestic volume growth trends in March 2015 and Feb 2015

Type of Vehicles	Growth rate - 2015	
	YOY in mar	FY
Passenger vehicles	2.7	3.9
Commercial vehicles	2.8	2.8
Two wheelers	0.8	8.1
Three wheelers	2.7	10.8
Tractors	3.4	13.0

Source: Adopted from ICRA Research Services

In India sales of commercial vehicle reach to 52,481 units with a growth rate of 5.3% in Jan- 2015 according to the data announced by Society of Indian Automobile Manufacturer (SIAM). Table- 1 shows the positive domestic volume growth rate of main Automobile segments.

The Indian government has taken various initiatives to make Indian market as a leader in two and four wheeler market in worldwide by 2020. Therefore, present study mainly focus on examining the financial performance of automobile industry selected companies and help to the stakeholders to choose better investment decision.

REVIEW OF LITERATURE

Financial statements do not explore all financial and operational information of a firm but it furnishes useful information, which evolves two important factors- financial soundness and profitability. It includes analysis, interpretation and diagnosis of financial health and profitability based on financial statement of the firm. (Akram Alkhatih, 2012) observed that operational efficiency and asset management have impact on Return on Assets. (Gilbert Sebe – Yeboah, 2014) used profitability, efficiency, liquidity, risk measures, asset quality and investor analysis to identify long term performance of banks.

(Vivek Singla, 2013) analysed the financial performance of selected firms. It includes analysis of profitability and working capital. Financial performance is a yardstick to measure financial and operational efficiency of the firm. Strategic and operational of thinking mainly depends on analysis of financial performance. The consistency and routine efforts made to improve financial condition. This will result on increasing effectiveness and efficiency of the firm and increase the interest on investment.

(Anurag. B.Singh, 2012) examined the financial performance of ICICI and SBI bank with a comparison of private and public sector. (Amalendu Bhunia, 2011) evaluates the financial performance of pharmaceutical company. The study was mainly focused on long term and short term solvency, liquidity and profitability, efficiency and behaviour of profitability and liquidity position. The study suggested that, the sector poised with new challenges and sustain the growth. (G. Subramanian, 2014) suggested that avoid the bulk investment in inventory and receivables. Instead of that use the available funds an effective and efficient manner for alternative profitable uses. The study concludes that financial performance analysis is more important for the accomplishment of a firm. This tool is a consideration of solidity, feasibility and fertility of a firm.

(Maryam Mohammadi, 2012) emphasis accounting information helps to decision makers to evaluate the firm's financial performance, how to examine future obligations and evaluate better investment decision. The results are interpreted firm do not performed well and overall organisational performance in terms of profitability, liquidity and creditworthiness declined due to weakening in firm's operational environment. (V. Sreikanth, 2014) pointed out that overall firm performance declined remarkably at overall study period. (Mistry, 2011) analysed the mean value of automobile production is the highest in two wheelers. The highest fluctuations are found in both of commercial and passenger vehicle when compared to two wheelers and three wheeler segment.

PURPOSE OF THE STUDY

The present research paper aims to evaluate the financial performance of selected automobile companies in India for the period from 2007 to 2014. The main focus of the study is to analyse and interpret financial performance of selected automobile companies. The objective is classified into the following.

To examine the profitability position of automobile industry.

To analyse the liquidity, solvency position

To assess the efficiency of automobile companies.

RESEARCH METHODOLOGY

In order to examining the financial performance of selected automobile companies, it mainly depends on quantitative research methodology to determine whether financial performance of selected automobile companies are positive or negative with a association of ten automobiles companies in India. The above stated hypothesis is tested by using t-test, correlation co-efficient, regression and ANOVA. The following Table – 1 represents top ten automobile companies in India based on turnover 2015.

Sample taken for the research paper consists of ten automobile companies listed in BSE/NSE. Annual time series data considered as dependent and independent variable and were collected from moneycontrol.com. The annual reports from 2007 to 2014 were collected and considered as time period of the study.

Table - 2 Selected 10 Automobile Companies in India (Figures in Crores)

ET 500 Rank	Company	Turnover	PAT	MCRP CR	Assets
7	Tata Motors Ltd.	123222.91	9273.62	56499.77	52209.48
21	Mahindra & Mahindra Ltd.	37026.37	3079.73	49945.17	36926.19
19	Maruti Suzuki India Ltd.	38140.69	2382.37	31475.63	14762.9
41	Hero MotoCorp Ltd.	19669.29	1927.9	40398.63	4447.22
46	Bajaj Auto Ltd.	17008.05	3454.89	46885.69	5154.96
67	Ashok Leyland Ltd.	11133.04	631.3	6653.15	6621.16
101	Sundaram Clayton Ltd.	7419.41	64.63	529.23	2428.87
110	TVS Motor Company Ltd.	6569.99	127.94	2985	1745.06
148	Eicher Motors Ltd.	5138.64	243.12	4448.27	474.14
396	Force Motors Ltd.	1574.05	58.62	730.05	583

Source: www.mapsofindia.com

HYPOTHESES

From review of literature the research gaps are identified to find the financial performance of selected Automobile companies. The framed hypotheses are as follows.

1. Ho: There is an insignificant impact on profitability, liquidity, solvency and efficiency on financial performance of selected automobile companies measured by ROA.

Decision rule: If the probability (level of significance) of the t- calculated value is less than 5%- reject null hypothesis otherwise, accept null hypothesis. In this study researcher used regression model consists of independent and dependent

variable to assess the financial performance of automobile companies. The data were analysed by using SPSS14 software. Therefore, the analysis helps to know the financial performance using financial performance indicators.

DATA COLLECTION

This research paper data stemmed from balance sheet and profit& loss account in a year from 2007 to 2014. Different ratio parameters were analysed. Therefore, this study helps to know about long run performance of selected companies and performance of automobile companies. This study mainly depends on secondary source of data.

PARAMETERS

This research paper is carried out over eight year’s consideration of accounting approach using important financial tools and categorised based on need for the study. In this research paper mainly concentrate on Profitability Ratios, Liquidity Ratios, Solvency Ratios and Efficiency Ratios as financial performance parameters.

Table – 3 RATIO PARAMETERS

Profitability	Liquidity	Solvency	Efficiency
Operating Profit Ratio(OPR)	Current Ratio(CR)	Debt Equity Ratio(DER)	Inventory Turnover Ratio(INVNTOR)
Gross Profit Ratio(GPR)	Liquidity Ratio(LR)	Long term Debt to Equity Ratio(LTDER)	Debtors Turnover Ratio(DTOR)
Net Profit Ratio(NPR)			Fixed Assets Turnover Ratio(FATOR)
Return on Capital Employed(ROCE)			Total Assets Turnover Ratio(TATOR)
Return on Networth(RONW)			Assets Turnover Ratio(ATOR)
Return on Assets(ROA)			

RESULTS AND DISCUSSIONS

Table – 4 DESCRIPTIVE STATISTICS

ratios	Mean	Std. Deviation	N
OPR	9.75	5.92	80
GPR	7.21	6.71	80
NPR	7.63	5.99	80
ROCE	21.99	18.91	80
RONW	21.62	20.81	80
ROA	212.27	195.58	80
CR	.91	.52	80
LR	.75	.51	80
DER	.53	.55	80
LTDER	.36	.33	80
INVNTOR	17.58	11.89	80
DTOR	36.72	48.23	80
FATOR	3.24	1.83	80
TATOR	2.32	1.04	80
ATOR	2.32	.99	80

Source: Authors Calculation Using SPSS 14

Table – 5 CORRELATIONS

		OPR	GPR	NPR	ROCE	RONW	ROA	CR	LR	DER	LTDER	INVNTOR	DTOR	FATOR	TATOR	ATOR
OPR	Pearson Correlation	1	.96**	.48**	.84**	.59**	.13	-.20	-.10	-.47**	-.41**	.49**	.39**	.46**	.19	.28*
	Sig. (2-tail)		.000	.000	.000	.000	.27	.070	.39	.000	.000	.000	.000	.000	.10	.01
GPR	Pearson Correlation	.96**	1	.50**	.85**	.59**	.10	-.16	-.12	-.51**	-.41**	.49**	.42**	.58**	.23*	.33**
	Sig. (2-tail)	.000		.000	.000	.000	.400	.157	.293	.000	.000	.000	.000	.000	.040	.003
	N	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80

NPR	Pearson Correlation	.48**	.50**	1	.49**	.64**	.36**	.08	-.00	-.42**	-.42**	.30**	.41**	.31**	.07	.17
	Sig. (2-tail)	.00	.00		.00	.00	.00	.49	.98	.00	.00	.01	.00	.01	.53	.14
	N	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
ROCE	Pearson Correlation	.84**	.85**	.49**	1	.71**	.05	-.24*	-.24*	-.53**	-.44**	.68**	.50**	.66**	.58**	.64**
	Sig. (2-tail)	.00	.00	.00		.00	.65	.03	.03	.00	.00	.00	.00	.00	.00	.00
	N	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
RONW	Pearson Correlation	.59**	.59**	.64**	.71**	1	.13	-.05	-.11	-.62**	-.40**	.48**	.35**	.42**	.44**	.48**
	Sig. (2-tail)	.00	.00	.00	.00		.24	.66	.32	.00	.00	.00	.00	.00	.00	.00
	N	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
		OPR	GPR	NPR	ROCE	RONW	ROA	CR	LR	DER	LTD ER	INVTOR	DTOR	FATOR	TATOR	ATOR
ROA	Pearson Correlation	.13	.10	.36**	.05	.13	1	.29**	.18	-.46**	-.55**	.16	.13	-.02	-.13	-.05
	Sig. (2-tail)	.27	.40	.00	.65	.24		.01	.12	.00	.00	.17	.26	.84	.27	.69
	N	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
CR	Pearson Correlation	-.20	-.16	.08	-.24*	-.05	.29**	1	.85**	-.22	-.10	.00	-.29**	.01	-.18	-.18
	Sig. (2-tail)	.07	.16	.49	.03	.66	.01		.00	.06	.36	.99	.01	.92	.10	.11
	N	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
LR	Pearson Correlation	-.10	-.12	-.00	-.24*	-.11	.18	.85**	1	-.05	-.17	.01	-.32**	-.03	-.34**	-.34**
	Sig. (2-tail)															
	N	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
DER	Pearson Correlation	.39	.29	.98	.03	.32	.12	.00		.64	.14	.91	.00	.78	.00	.00
	Sig. (2-tail)															
	N	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
LTD ER	Pearson Correlation	.47**	.51**	.42**	.53**	.62**	.46**	-.22	-.05	1	.79**	-.53**	.38**	.53**	-.26*	-.33**
	Sig. (2-tail)	.00	.00	.00	.00	.00	.00	.06	.64		.00	.00	.00	.00	.02	.00
	N	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
INVTOR	Pearson Correlation	.49**	.49**	.30**	.68**	.48**	.16	.00	.01	-.53**	.44**	1	.30**	.61**	.54**	.56**
	Sig. (2-tail)	.00	.00	.01	.00	.00	.17	.99	.91	.00	.00		.01	.00	.00	.00
	N	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
DTOR	Pearson Correlation	.39**	.42**	.41**	.50**	.35**	.13	-.29**	-.32**	-.38**	.36**	.30**	1	.31**	.22	.27*
	Sig. (2-tail)	.00	.00	.00	.00	.00	.26	.01	.00	.00	.00	.01		.01	.06	.02
	N	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
FATOR	Pearson Correlation	.46**	.58**	.31**	.66**	.42**	-.02	.01	-.03	-.53**	.46**	.61**	.31**	1	.58**	.60**
	Sig. (2-tail)	.00	.00	.01	.00	.00	.84	.92	.78	.00	.00	.00	.01		.00	.00
	N	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
TATOR	Pearson Correlation	.19	.23*	.07	.58**	.44**	-.13	-.18	-.34**	-.26*	-.16	.54**	.22	.58**	1	.95**
	Sig. (2-tail)	.10	.04	.53	.00	.00	.27	.10	.00	.02	.16	.00	.06	.00		.00
	N	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
ATOR	Pearson Correlation	.28*	.33**	.17	.64**	.48**	-.05	-.18	-.34**	-.33**	-.24*	.56**	.27*	.60**	.95**	1
	Sig. (2-tail)	.01	.00	.14	.00	.00	.69	.11	.00	.00	.03	.00	.02	.00	.00	
	N	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed). Source: Authors Calculation Using SPSS 14

Table – 6 SUMMARY

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.79(a)	.62	.54		133.25

a Predictors: (Constant), ATOR, NPR, CR, LTDER, DTOR, OPR, INVNTOR, FATOR, RONW, LR, ROCE, TATOR, DER, GPR

Source: Authors Calculation Using SPSS 14

Table – 7- ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1867725.03	14	133408.93	7.51	.00(a)
	Residual	1154070.53	65	17754.93		
	Total	3021795.56	79			

a Predictors: (Constant), ATOR, NPR, CR, LTDER, DTOR, OPR, INVNTOR, FATOR, RONW, LR, ROCE, TATOR, DER, GPR

b Dependent Variable: ROA

Source: Authors Calculation Using SPSS 14

Table – 8 COEFFICIENTS (a)

Model	Unstandardized Coefficients		Standardize d Coefficients		Sig.	Collinearity Statistics	
	B	Std. Error	Beta	t		Tolerance	VIF
1 (Constant)	208.179	117.55		1.77	.08		
OPR	19.93	12.51	.60	1.59	.12	.04	24.3
GPR	-4.05	11.33	-.14	-.36	.72	.04	25.73
NPR	-1.24	5.71	-.04	-.22	.83	.19	5.22
ROCE	-5.80	3.23	-.56	-1.80	.08	.06	16.57
RONW	1.74	2.16	.19	.81	.42	.11	9.01
CR	504.55	132.02	1.34	3.82	.00	.05	20.91
LR	-480.82	134.23	-1.25	-3.58	.00	.05	20.59
DER	260.09	128.43	.73	2.03	.05	.05	21.91
LTDER	-686.48	154.10	-1.16	-4.46	.00	.09	11.48
INVNTOR	5.96	2.34	.36	2.55	.01	.29	3.44
DTOR	.16	.43	.04	.37	.72	.54	1.87
FATOR	-26.22	17.30	-.25	-1.52	.14	.22	4.47
TATOR	-46.60	59.84	-.25	-.78	.44	.06	17.31
ATOR	12.64	55.88	.06	.23	.82	.07	13.59

a Dependent Variable: ROA

Source: Authors Calculation Using SPSS 14

Table – 5 correlation matrix findings are as follows

- A weak positive correlation found between the dependent variable return on assets and the independent variable operating profit ratio of (+ 0.126).
- Very weak positive correlation resulted between GPR , ROCE and ROA(+0.095) & (+0.051).
- A significant positive correlation with NPR & CR of (+0.361) & (+0.291) respectively.

A positive correlation with RONW & LR of (+0.132) & (+0.177) respectively.

Positive correlation was found between ROA & INVNTOR and ROA & DTOR of (+0.155) and (+0.128) A significant negative correlation with DER & LTDER of (-0.458) & (-0.554) respectively.

FATOR & ATOR found weak negative correlation with ROA of about (-0.023) & (-0.046).

A negative correlation with TATOR of (-0.126).

Table – 8 represents Colliniarity Statistics the value of VIF are more than 5, implying that problem of multicolliniarity except INVNTOR, DTOR and FATOR. It suggests that multicolliniarity exist among the remaining dependent variables. Based on the table-6, the analysis reveals that adjusted R-square is 54%. It suggests 54% of the variation in the dependent variable (Return on Assets) is explained by the independent variables. It involves strong instructive power for the entire

regression. At a same time the table – 7 results F-stat 7.514 and less than 5% significance level. Therefore, reject the null hypothesis stated that There is an insignificant impact on profitability, liquidity, solvency and efficiency on financial performance of selected automobile companies measured by ROA.

By using regression model researcher can predict the average Return on Assets with 54% explanatory power.

$ROA = 208.17 + 19.93OPR - 4.05GPR - 1.24NPR - 5.80ROCE + 1.74RONW + 504.55CR - 480.82LR + 260.09DER - 686.46LTDER + 5.96INVNTOR + 0.16DTOR - 26.33FATOR -$

46.60TATOR+12.64ATOR+e

To examine the significance of independent variables on association with ROA as dependent variable, this study considered table – 8 which deals on significance of independent variables. CR,LR,DER,LTDER and INVNTOR found to be significant and impact on ROA as p-value resulted less than 5% significance level. The remaining independent variables have insignificant impact on ROA and the p-value > 5% significance level.

CONCLUSION

This research paper is an attempt to determine the financial performance of selected automobile companies in India by using financial performance parameters, It can be concluded that the anticipated inputs to this study to the firm is to assist strategic thinkers pay attention to the appropriate actions that apply latent and strong affect on their automobile performance. This research facilitates a comprehensive model for examining the financial performance of automobile performance and the major findings of this research will give a important parameters and helps to fill a similar gaps in the literature. This analytical strong fit model that R-square results 54% indicates variation of independent variable on dependent variable. Further research, need to focus on important parameters like Economic Value added and Refined Economic Value Added to Reveal & evaluate the overall organisational development performance.

References

1. Garg Shruti, Sharma Vandana. Green Marketing: An Emerging Approach to Sustainable Development, International Journal of Applied Agricultural Research,2017:12(2):177-184.
2. Kumar Pavnesh, Sugandha Sapna, Veer Chandan. Green Marketing: Concepts and Cases, Zorba Books, Gurugram, 2011.
3. Peattie K. Environmental Marketing Management, Pitman, Landon, 1995.
4. Prasanth V Sai, Jyothsna M, Kumari N Aruna. Impact of Green Marketing in India, International Journal of Advance Research in Science and Engineering,2018:7(4):485-492.
5. Tiwari S, Tripathi DM, Srivastava U, Yadav PK. Green Marketing- Emerging Dimensions, Journal of Business Excellence,2011:2(1):18-23.