

Profitability Study of Automobile Sector – An Application of Return on Investment for Listed Companies of India

Bijal Patel ,Dr. Jigar Aggarwal

Research Scholar, Dept. of Commerce, Gujarat University, Ahmedabad.

Research Guide, Associate Professor, Dept. of Accountancy & Commerce, JG College of Commerce, Gujarat University, Navarangpura, Ahmedabad – 380 009.

Received: 16th April 2020

Revised: 20th May 2020

Accepted: 30th May 2020

Abstract: This research is carried out to examine the financial structure in terms of management. Ten leading automobile companies are examined for their performance on bases of Return on Investment of the firms.

Objective: To evaluate financial performance analysis of selected automobile companies in India in terms of Return on Investment. It assumed that there is no significant difference in profitability and efficiency ratio of the selected automobile companies during the period the study.

Time Taken for Study: Normally it is not possible for the researcher to study the financial performance of automobile companies in India for longer period because there is constrain of the time, money and efforts. So the present study is done for seven years of period because of convenience for proper data collection and analysis for the period of seven years for the study. The present study is made for a period of seven accounting years from 2013-2014 to 2019-20.

Parameters of the Study: Management Ratios – Return on Investment

Tools Used For Study: Descriptive Statistics and Analysis of Variance

KEY WORDS: Automobile, Financial Ratios, Return on Investment, ANOVA

1. INTRODUCTION

In Indian economy, the Indian automobile industry has arisen as a 'dawn area'. India is arising as one of the world's quickest developing traveler vehicle markets and second biggest bike maker. India is the biggest base to trade minimal vehicles to Europe. On the auto material, half and half and electronic vehicles are new turns of events and India is one of key business sectors for them. Worldwide and Indian producer are centering their endeavors to foster imaginative items,

Profitability Study of Automobile Sector – An Application Of Return On Investment for Listed Companies Of India

advances and store network. Automobile industry, the matter of creating and selling self-fueled vehicles, including traveler vehicles, trucks, ranch hardware and other business vehicles. By permitting buyers to drive significant distances for work, shopping and diversion, the vehicle business has empowered the improvement of a broad street framework, made conceivable the development of rural areas and retail outlets around significant urban communities, and assumed a vital part in the development of the auxiliary ventures like the oil and travel organizations.

The word 'Automobile' comes through the French Automobile from the old Greek word (auto's, 'self') and Latin versatile ('Movable') implies a vehicle that moves itself, as opposed to being pulled or moved by an isolated creature or another vehicle. By definition, an auto or vehicle is a wheeled vehicle that conveys its own engine and transport travelers, as we probably are aware the car was not created in a solitary day or by single creator.

For the majority of the historical backdrop of car, a vehicle was relied upon to do minimal more than make a trip from spot to somewhere else with a few level of unwavering quality and economy. Vehicles were relied upon to go minimal quicker, ride all the more serenely and keep going to the point of making the speculation beneficial on account of streets and innovation improved and more individuals started to utilize them. Any new vehicle could do these things well by mid 1930s, and even as innovation progressed throughout the following 40 years, what the world expected of a vehicle remained fundamentally something similar. There was sped up, comfort and dependability consistently, yet for more than 60 to 70 years, a vehicle was relied upon to do just move individuals and their stuff. After than Government engaged in auto plan. State government began requiring specific things, for example, security glass, electric light and excess choke return springs on the grounds that the innovation became useful. Government Motor Vehicle Safety Standard was made in 1966 in US. The mission of the auto started changing because of Environment Protection Agency in 1973. Vehicles were in the long run expected to safeguard inhabitants in crash, hold all unburned fuel fumes, convert the result of ignition into less unsafe gases and report their breakdown rather than simply conveying individuals and their stuff rapidly, serenely and dependably. Society of auto Engineers set many sorts of securities and execution necessities which the vehicle organizations should meet these prerequisites. The actually a for buyer auto has additionally gone light a long time past solid, conservative transportation as though new specialized plan guidelines weren't sufficient. The 'auto style' alluded to a scope of monetary vehicles at one range and extravagance vehicles at different, has now incorporate a many various sorts of autos.

The present car architects and designing aren't anything not exactly legends. They should make a vehicle that meets more wellbeing and discharges guidelines and ridiculously inventive market requests which were undreamed of an age prior. Continuously they need to sort out some way to deliver these kind of machines at a particular expense on the grounds that the selling cost is essentially set before the plan work isn't yet started. Presently a day, auto organizations have significant piece on the lookout. An organization record, Ford sold 7.2 million vehicles worldwide in 1999. Passage additionally record for the total compensation \$ 7.2 billion and EPS

\$5.86 while the complete expense diminished by \$1 billion. General Motors recorded procuring \$8.53 per share in 1999 which was twofold the \$4.32 per share acquired in 1998. Its incomes bounced 14%, working expense decreased by \$3.7 billion and its net revenue multiplied to 3.2%. Daimler Chrysler announced a total compensation of \$5.8 billion out of 1998, a 19% increase north of 1998. Overall deals were up and working benefit has expanded 28%. In 1993 absolute automobile industry creation arrived at 42 trillion yet which was 13.4% of the complete for all makers. The absolute number of people utilized straightforwardly and in a roundabout way is 7.2 million. Nissan Motor Co. Ltd. is building a \$930 million vehicle fabricating plant in Canton that will cover 2.6 million square feet and produce around 25,000 units every year.

A regular pickup truck, a standard game utility vehicle and a recently planned minivan will be created at this office. This creation has expressed to start in mid-2003. At first the plant will utilize around 3,300 specialists. All through twentieth century, the vehicle reconfirmed and refreshed its status as a victory of designing through persistent improvement and uneasy use of new innovation. The vehicle business is frequently viewed as the fundamental motor of modern development of the twentieth century. Its impacts on metropolitan life and the climate are obvious all over. The business is a complex and steadily changing process for assembling, sub-project worker and unions. The change from make creation to large scale manufacturing, proclaimed a blast of assembling limit which has had an unavoidable impact of human action in this century. New mechanical improvement like the utilization of energy components as a power source will without a doubt keep the vehicle on the main edge of innovation in the 21st century. Automakers should offer highlights, for example, various air packs, driver data framework, solace controls, etc. to stay serious. Union of worldwide vehicle industry is pushing ahead at the amazing speed.

2. RETURN ON INVESTMENT

Return on Investment (ROI) is a show measure used to survey the capability or advantage of an endeavor or dissect the usefulness of different endeavors. Return for cash contributed endeavors to clearly check the proportion of benefit from a particular endeavor, relative with the hypothetical cost. To process ROI, the benefit of a hypothesis is isolated by the cost of the endeavor. The result is conveyed as a rate or an extent. return for capital invested is a popular usefulness metric used to survey how well a hypothesis has performed.

Profit from beginning capital venture is imparted as a rate not set in stone by parceling a hypothetical net advantage (or shortage) by its hidden cost or cost.

Profit from starting capital venture can be used to make related things assessments and rank interests in different exercises or assets.

Return for cash contributed doesn't consider the holding time period or passage of time, consequently it can miss a promising situation costs of contributing elsewhere.

$$ROI = \frac{\text{Current Value of Investment} - \text{Cost of Investment}}{\text{Cost of Investment}}$$

Return for capital contributed is a notable measurement because of its flexibility and ease. Essentially, ROI can be used as a straightforward check of an endeavor's usefulness. This could be

Profitability Study of Automobile Sector – An Application Of Return On Investment for Listed Companies Of India

the ROI on a corporate security, the ROI an association expects on expanding an assembling plant, or the ROI made in a land trade.

The genuine calculation isn't exorbitantly tangled, and it is decently easy to interpret for its wide extent of uses. On the off chance that an endeavor's ROI is net positive, it is probably useful. However, if various possibilities with higher ROIs are available, these signs can help monetary patrons with clearing out or choose the best decisions. In like way, monetary patrons should avoid negative ROIs, which propose an absolute deficiency.

Return for cash contributed is a notable measurement because of its flexibility and ease. Essentially, ROI can be used as a basic check of an endeavor's efficiency. This could be the ROI on a corporate security, the ROI an association expects on expanding an assembling plant, or the ROI made in a land trade.

The genuine calculation isn't exorbitantly jumbled, and it is decently easy to interpret for its wide extent of usages. On the off chance that a hypothesis' ROI is net positive, it is probable beneficial. However, if various possibilities with higher ROIs are open, these signs can help monetary patrons with discarding or select the best other options. Additionally, monetary benefactors should avoid negative ROIs, which deduce a general shortfall.

Monetary year 2013-14 has introduced the ROI of auto organizations. It very well may be seen that Eicher engines has acquired 25.07% of ROI. The firm has gotten best yield on venture among all organizations under study. Bajaj Auto has positioned on second situation during this year, the firm has 21.98% of ROI. Legend Moto Corp was positioned on third position; it has recorded with 20.88% of ROI. Atul Auto positioned fourth with 20.6% of ROI. Every one of the said four firms were determined return over 20% on venture. Goodbye Motors and Ashok Leyland had gotten most reduced profit from venture during 2013-14. The ROI values for Tata Motors and Ashok Leyland were 0.67% and 0.23% individually.

Four driving firms were determined with higher pace of profits. Two firms were gotten returns under 1%. Mahindra and Mahindra Ltd got more return somewhere in the range of 10% and 15%. During the current year, Maruti Suzuki Ltd., TVS engines and Force Motor were determined with return of under 10% on all out venture.

Table 2.1 Return on Investment (ROI in %)

	Maruti Suzuki ltd.	Tata Motors	M & M Ltd.	Ashok Leyland	Bajaj Auto	Atul Auto	TVS Motor	Force Motor	Hero Moto Corp	Eicher Motor Ltd.
2013-14	9.11	0.67	12.01	0.23	21.98	20.6	7.33	4.38	20.88	25.07
2014-15	11.06	-9.48	10.08	0.25	18.08	22.86	7.55	5.14	22.67	0
2015-16	11.66	-0.1	9.02	5.39	23.83	21.39	9.88	7.82	25.38	36.12
2016-17	14.39	-4.12	9.11	8.56	18.38	15.1	9.45	6.91	22.98	28.15
2017-18	13	-1.74	9.18	9.42	17.07	15.43	9.22	5.83	22.08	21.97
2018-19	11.91	3.31	9.1	10.88	17.07	15.02	8	5.18	19.18	21.67
2019-20	9.03	-11.64	2.63	1.46	20.58	13.93	6.32	1.87	19.37	17.99
Avg	11.45	-3.30	8.73	5.17	19.57	17.76	8.25	5.30	21.79	21.57
SD	1.95	5.49	2.90	4.56	2.62	3.70	1.30	1.91	2.19	11.15
CV	17.02	-166.23	33.17	88.14	13.38	20.81	15.77	36.00	10.03	51.68

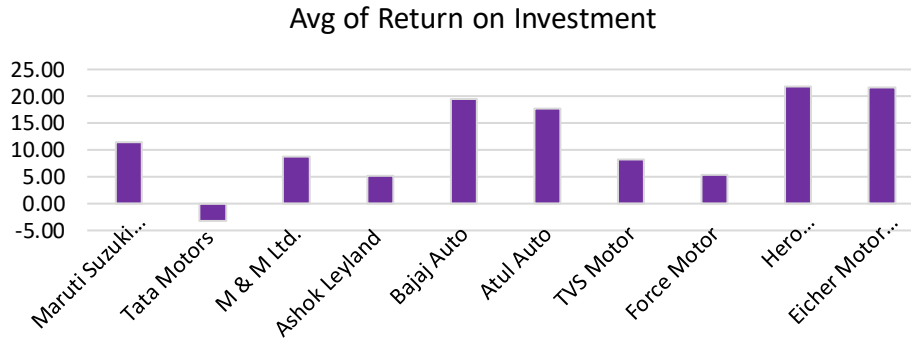


Figure 2.1 Return on Investment in Automobile Sector

In 2014-15, Maruti Suzuki Ltd has expanded 1.85% in ROI esteem. Because of disappointment in benefit making, Tata Motors was neglected to produce return. The firm was having negative qualities on return. It was determined (- 9.48%) of ROI. The firm was pushed in inverse bearing for the monetary year 2013-14. The expense of venture of firm crossed to the current worth of speculation. Accordingly, it has determined negative worth. Mahindra and Mahindra as declined in ROI. It has neglected to build the worth of current speculation. The firm has gotten 1.93% lower return contrast with the year before. Ashok Leyland has expanded worth of ROI. The acquired worth was lower than different firms in study. It has acquired just 0.02% than the year before. Atul Auto expanded its present worth of speculation. The firm has acquired by 2.26% than the year before. Televisions Motors expanded ordinary worth of 0.22% in ROI during this year. Force Motors has gotten climb of 0.76% in ROI. Legend Moto Corp acquired 1.79% than a year ago. Eicher Motors has not gotten any worth of ROI for the year 2014-15. The firm has reached to break - even point. It shown that during the current year the expense of venture and current worth of speculation could rise to consequently, the firm acquired nothing.

For monetary year 2014-15 Atul Auto stood first in getting best yield on venture. Legend moto Corp positioned second. Both the organizations were gotten return over 20% in this year. Bajaj Auto (18.18%), Mahindra and Mahindra (10.08%) and Maruti Suzuki Ltd. (11.06%) were acquired somewhere in the range of 10% and 20% in ROI. Televisions Motors (7.55%) and Force engines (5.14%) were getting returns somewhere in the range of 5% and 8% on speculations. Eicher engines didn't getting any profits, it has reached to make back the initial investment point. Ashok Leyland (0.25%) has getting return lower than 1% on speculation. It very well may be seen that, for monetary year 2014-15, 40% of firms of car area were neglected to get any profits on speculations. Goodbye Motors was the main firm who neglected to adjust current worth of speculation and cost. The presentation of vehicle area for ROI was moderate contrast with a year ago.

For monetary year 2015-16, Maruti Suzuki Ltd has acquired 0.6% on ROI. Goodbye Motors neglected to oversee ROI as the expense of venture expanded than current worth of speculation during 2015-16. The firm was counted with negative worth (- 0.1%). The extent of ROI misfortune was diminished by firm contrast with a year ago. Mahindra and Mahindra again neglected to build ROI. This year the firm was diminished by 1.06% of ROI esteem. Ashok Leyland acquired ROI in this year. The firm has acquired 5.14% of ROI this year. Bajaj Auto has gotten 4.75% of ROI. Atul Auto has declined by 1.47% on ROI. Televisions Motor has acquired

Profitability Study of Automobile Sector – An Application Of Return On Investment for Listed Companies Of India

2.33% in ROI. Force Motor was expanded ROI worth of 2.68% this year. Legend Moto Corp acquired with 2.71% on ROI. Eicher Motor Ltd acquired 36.12% on ROI.

During monetary year 2015-16 just two organizations - Tata engines and Mahindra and Mahindra Ltd were neglected to oversee ROI. Contrast with last two monetary years, Eicher engines positioned first, Hero Moto Corp positioned second, Bajaj Auto obtained third position and Atul Auto evaluated on fourth position separately for higher procuring in ROI during monetary year 2015-16. All the four were acquired than 20% profits from venture. Maruti Suzuki Ltd has procured over 10% of ROI in this year. Ashok Leyland, TVS Motors and Force Motors were determined ROI somewhere in the range of 5% and 10% in this year.

In monetary year 2016-17, seven firms out of ten were neglected to build ROI. It shown that the organizations were not reached to the normal benefit level. Hence, the extent of an interest in current returns were decreased. Maruti Suzuki Ltd acquired in ROI by 2.73% than the year before. The hole shown that the firm has getting compensation on venture. Goodbye Motors was neglected to oversee current speculation and cost to venture. Mahindra and Mahindra Ltd acquired little measure of Rs. 0.09% in ROI. Ashok Leyland acquired with 3.17% ROI esteem. Bajaj Auto declined by 5.45% than a year ago. That is about how much ROI shown that the firm has changed data. It has acquired and declined then again. This year the current worth of venture was lower than last year, which could decline the ROI of firm. Atul Auto has likewise declined ROI during this year. The firm has diminished ROI of 6.29% than a year ago. Televisions engines has procured lower profits from speculation, it has declined by 0.43% this year. Following three years, first time the firm has declined its worth. Force Motor has declined by 0.91% in ROI esteem. Additionally, legend moto Corp and Eicher Motor Ltd have decreased ROI esteem. The organizations were declined by 2.4% and 7.97% than the year before.

For monetary year 2016-17, seven firms of ten were neglected to expanded ROI esteem. Complete 70% of firms of auto area in India were fizzled. Maruti Suzuki Ltd, Mahindra and Mahindra Ltd and Ashok Leyland were acquired. In the midst of them Maruti Suzuki Ltd has acquired most elevated ROI according to venture situation and cost of speculation. Higher worth of ROI acquired by Eicher engines and Hero Moto Corp. The firm were positioned first and second separately. Besides, they had income over 20% of ROI in 2016-17. Atul Auto, Maruti Suzuki Ltd and Bajaj Auto had acquired over 14% and up to 19% ROI in 2016-17. Mahindra and Mahindra Ltd., Ashok Leyland, TVS Motors and Force Motors have acquired profit from speculation somewhere in the range of 6% and 11% in 2016-17.

During 2017-18, the ROI worth of auto area impacted adversely. During the current year, seven firms of ten were neglected to increment profit from venture. Maruti Suzuki ltd has diminished by 1.39% in ROI. Goodbye Motors was bombed in creating profit from speculation. It has counted negative during the current year. Mahindra and Mahindra has expanded ROI of 0.07% than a year ago. Ashok Leyland acquired with 0.86% in ROI. Bajaj Auto has again fizzled in ROI hole. During the current year it has declined by 1.31% in ROI. Atul Auto has expanded ROI by 0.33% than the year before. Televisions Motors declined ROI second time in most recent five years. The firm has fizzled by 0.23% of ROI. Force Motors declined ROI second time. It

decreased by 1.08% than a year ago. Legend Moto Corp declined 0.9% and Eicher Motor ltd additionally fizzled for most recent three years. This year it has declined by 6.18% in ROI.

Monetary year 2017-18 was fizzled for Indian auto area. It very well may be seen that 70% of firms were flopped in this year. Just three firms - Mahindra and Mahindra Ltd., Ashok Leyland and Atul Auto were acquired. First time Eicher Motors loosed its place from first position. Legend Moto Corp has put on first position and Eicher Motors positioned on second position. Both the organizations were acquired over 21% on ROI. Mahindra and Mahindra, Ashok Leyland, TVS Motors and Force engines were getting return somewhere in the range of 5% and 10% of ROI. Maruti Suzuki Ltd and Atul Auto were acquired somewhere in the range of 13% and 16% of ROI during monetary year 2017-18.

During Covid-19 pandemic Indian vehicle area made due in getting profits from venture. Out of ten recorded organizations in study, eight were declined hugely. Just Bajaj Auto and Hero Moto Corp were acquired little sum on venture. Bajaj Auto had gotten 3.51% ROI, though Hero Moto Corp has acquired just 0.19% on complete venture. Goodbye Motors (- 11.61%) was counted negative ROI. Maruti Suzuki Ltd declined by 2.88% in ROI. Mahindra and Mahindra decreased by 6.47% this year. Ashok Leyland free most elevated 9.42% in ROI. Atul Auto has decreased by 1.09% in ROI. Televisions Motors fizzled by 1.68% during 2019-20. Eicher Motors Ltd steadily declined ROI for most recent five years. This year it has fizzled by 3.68% in ROI.

The Indian car area endured a great deal. Practically 80% of firms were neglected to procure better yield on speculation during monetary year 2019-20. Just two firms under concentrate on shows that they were getting lower profit from venture. During the present circumstance, Bajaj Auto has procured over 20% of ROI and positioned first in the midst of vehicle industry. Atul Auto, Hero Moto Corp and Eicher Motors have getting return somewhere in the range of 10% and 20% this year. Maruti Suzuki Ltd., Mahindra and Mahindra Ltd., Ashok Leyland, TVS Motors and Force Motor have getting return somewhere in the range of 1% and 10% on venture. Table 4.13 additionally introduced specifics of elucidating insights. On a normal of ROI Hero Moto Corp procured best yield on venture. The firm is registered with 21.79% normal with least worth of CV (10.03%). The outcomes are showing that the firm has a consistent development and business during most recent seven years. The monetary administration particularly as far as speculation the firm is getting achievement. Position wise Eicher Motors has acquired second best yield of 21.57% for seven-year time. Yet, the CV showing higher vacillation in ROI. It talks that the administration is neglected to oversee speculation appropriately. Higher variance in venture example can be come about the firm in misfortune in future. Bajaj Auto positioned on third situation with normal RIO of 19.57% in chose length of time. The CV worth is count 13.38%, which showing disappointment the board of firm in speculation. The firm should need to take care of the monetary issues in future venture. Atul Auto Computed with normal return of 17.76% and positioned fourth among vehicle area. The CV worth of firm shown higher variance of 20.81%, shows shaky change in venture. Goodbye Motors count with negative worth of ROI. The normal of firm likewise demonstrating negative. The firm did misfortune and neglected to deal with the monetary situation. Just two firms - Hero Moto Corp and Eicher Motors were getting normal return of 21% to 22% with higher requesting of changes. Bajaj Auto and Atul Auto have acquired somewhere in the range of 17% and 20% of ROI. Maruti Suzuki Ltd

Profitability Study of Automobile Sector – An Application Of Return On Investment for Listed Companies Of India

procured normal of 11.45% on speculation. Mahindra and Mahindra, Ashok Leyland, TVS Motors and Force Motors were procured between 5% to 9% profit from interest in most recent seven years. A utilization of inferential measurements is utilized to analyze the future parts of the organizations under the review. The organizations are analyzed at 5% confirmation level with following speculation.

H₀: There is no significance difference between ROI of companies for financial year 2013-14 to 2019-20.

H₁: There is a significance difference between ROI of companies for financial year 2013-14 to 2019-20.

Table 2.2 Analysis of Variance for ROI

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Firms	4389.98	9	487.78	22.38	0.00	2.04
Error	1307.51	60	21.79			
Total	5697.50	69				

Table 2.2 shows results for ROI. The outcomes are demonstrating that determined worth of F is higher than the basic worth. [$F_{cal} = 22.38 > F_{crit} = 2.04$]. Higher the worth of calculative F, dismisses the invalid speculation. It came about that there is an importance contrast between ROI of organizations for monetary year 2013-14 to 2019-20.

REFERENCES:

- Agarwal., S. M. (2016). Financial analysis of automobile industries(A comparative study of TATA Motors & Maruti Suzuki). International journal of applied research., 2(9), 533-539.
- Atkotiya, K. N. (2005). Analysis of Financial Performance of Tea industry in India. Retrieved from <http://ethesis.saurashtrauniversity.edu/id/eprint/203>
- Bhatia., S. k. (2014). Financial performance of Indian Automobile companies after liberalization, a comparative study of Maruti suzuki and TATA motors. International journal of advances research in management and social science., 3(9), 186-195.
- Chauhan., D. U. (2018). Financial performance of selected automobile companies. International journal of research in finance and marketing., 8(8), 51-58.
- Dr.Ujjwal M. Mishra, M. C. (2018, August). Financial Performance of Selected Automobile Companies. International Journal of Reserch in Finance and Marketing (IJRFM), 8(8), 51-58.
- Gayathri, D. &. (2016, January). Study on Liquidity of Sail and Tisco- A comparative study . International Journal of Scientific Research , 5(1), 153-157.

- Hiren., S. (2016). Financial performance analysis of Indian companies belongs to automobile industry with special reference of liquidity & leverage. International journal of multidisciplinary and current research., 4, 39-51.
- Jindal, S. (2018). Financial performance of the Banking sector in India: A case study of Punjab National Bank .
- Kumar, Y. (2017, January-june). A comparative study of working capital management in steel authority of India Limited and Tata Steel Limited. International Journal of Trad & Commerce-IIARTC, 6(1), 181-193.
- Lakshmi., P. (2020). An analysis of Indian Automobile industry slowdown as an opportunity for development. International journal of research in commerce, IT and management., 10(2), 8-13.
- M., Z. T. (2012). A comparative evaluation of financial performance and market value of Maruti & TATA company. Bookman International journal of accounts, economics and business management., 1(1), 7-16.
- Madhavi., D. (2013). Analytical study of four automobile sector companies in price movement of shares. International journal of application or innovation in engineering and management., 2(6), 131-141.