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Profitability Performance of Select Automobile Units in India

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ABSTRACT

The automobile industry of India is one of the largest market compared to the world market. India is a home to 40 million passenger vehicles proving that the automobile industry has been able to provide the suitable match of vehicle for this large population of India. This paper focused on the profitability performance with special reference to profitability ratios of select automobile units in India. For the purpose of the study, the researcher has conveniently selected top six companies having highest sales and production in 2018. Profitability is the ability to earn profit from all the activities of an enterprise. It indicates how well management of an enterprise generates earnings by using the resources at its disposal. A business needs profits not only for its existence but also for expansion and diversification. Vertical integration, leverage, liquidity, inventory turnover and operating expenses to sales ratio are also the strongest determinants of the profitability of an enterprise.

Keywords: Automobile, vertical integration, leverage, liquidity.

INTRODUCTION:

The Indian automobile industry has vital role to play in the world's automobile market. The automobile industry of India is one of the largest when compared to the world market. Every household now has a vehicle and Indian is a home to 40 million passenger vehicles proving that the automobile industry has been able to provide the suitable match of vehicle for this large population of India. The automobile industry has continued its growth trajectory over the past few years. With the increasing growth in demand on back of rising income, expanding middle class and young population base, large pool of skilled manpower and growing technology. It is important to know that how this growing sector is affecting the financial analysis of companies under this sector. The automobile industry in India is one of the key sectors of the economy in terms of the employment opportunities that it offers directly as well as indirectly.

Profitability is the ability to earn profit from all the activities of an enterprise. It indicates how well management of an enterprise generates earnings by using the resources at its disposal. A business needs profits not only for its existence but also for expansion and diversification. The investors want an adequate return on their investments, workers want higher wages, creditors want higher security for their interest and loan and so on. Profit is the most useful measure of overall efficiency of a business.

Profitability is significant for survival and growth of the business enterprise. Several factors play an important role directly or indirectly in determining profitability. Profitability is determined by pricing strategy as well as sales volume. It also depends not only on the factors affecting elements of cost of sales but cost of production also. As the large size firms have the advantage of technical knowhow and economies in manufacturing, marketing, supervision, and in raising capital; positive relationship exists between the size of the firms and profitability is also determined by the assets structure and proper utilization of the production capacity. Profitability is also explained by the age of the firms, diversification, expansion of capacities and retained earnings. Vertical integration, leverage, liquidity, inventory turnover and operating expenses to sales ratio are also the strongest determinants of the profitability of an enterprise.

REVIEW OF LITERATURE:

Vijayakumar and Kadirvel (2003) studied the determinants of profitability of Indian Public Sector Manufacturing Industries-An Econometric analysis. It is evident from the results that age is the strongest determinant of profitability followed by the variables vertical integration, leverage, size, current ratio, inventory turnover ratio, operating expenses to sales ratio and growth rate. The selected variables have both positive and negative contribution in variation of profit rate. In a nutshell, it can be concluded that firms should consider all these possible determinants while considering its profitability.

Amir Hossein Jamali and AsgharAsadi (2012), in their article on "Management efficiency and profitability in Indian automobile industry: from theory to practice" they investigated that the relationship between the management efficiency and the firms profitability for a sample of 13 auto manufacturing companies listed on the Bombay Stock Exchange, located in Pune for the period of 5 yrs from 2006 to 2010. Management efficiency is an important component of corporate financial management because it directly affects the profitability of the firms. Considering the importance of profitability for the survival of a business and the role of efficient management to achieve this aim, this paper explores the relationship between management efficiency and profitability in Automobile Industry of India. For this purpose, 13 auto manufacturing companies are located in Pune were chosen as the sample. The analysis is carried out using Minitab 14 and conducting Pearson Coefficient correlation test on variables of the study including Gross Profit Ratio (GPR) and Assets Turnover Ratio (ATR). The central conclusion of the study is that profitability and management efficiency are highly correlated to each other and based on the results of the study recommendations for improving the management efficiency are suggested.

Dharmendra S. Mistry (2012) has made an attempt to analyse the main objective of this study is to ascertain the determinants of profitability of Indian Automobiles Industry for a period of five years i.e. 2004-05 to 2008-09. The analysis of various determinants of profitability, it is clear that the firms having big SIZE are earning good return on capital employed. As the SIZE of the firm is the strongest factor in determining the profitability, it is therefore suggested that the management should concentrate on increasing the size because the firms having big size have access to capital market and enjoy benefit of low cost of sales and hence they earn good return on capital employed. It may be concluded that DE, ITR and SIZE were the most important determinants of the profitability which affected the profitability of the companies under the study positively. Only LIQ was found to have negative effect on the profitability. DE was the most important determinant of profitability of the automobiles industry because its regression coefficients were the highest and found statistically significant for the most the years under the study which suggests that there was a positive relationship between profitability and DE.

Rakhi Hotwani (2013) has examined that the profitability position and growth of company in light of sales and profitability of Tata Motors for past ten years. The study is concerned with the ten year's data of Tata Motors i.e. from 2001-02 to 2010-11. It is analyzed through ratios, standard deviations and coefficient of variance. The study reveals that there not exists a strong relationship between sales & profitability of company. Profitability ratios help in ascertaining the position of the company with respect to various profitability measures like Operating Profit, Net Profit & Return on Net Worth. Comparative study of annual increase in sales and profitability is made to understand the growth of the company. Conclusions are drawn with the help of results obtained through aforesaid techniques. It can be concluded from the study that company has grown significantly from having a turnover of 8918.06 Crores in 2001-02 to 48040.46 Crores of Turnover in 2010-11. Company has created significant wealth for its stakeholders and provided handsome return on investment. Company's net worth has grown from 2465.06 Crore in 2002 to 20013.30 Crore in 2011 which implies more than 700% growth in net worth of the company.

Repalle Vinod (2014), in his research paper entitled "Evaluation of Working Capital Management on Profitability of Indian Automobile Indian Industries", the analyze the efficient working capital and profitability of the selected Automobile companies for last five years (2009-2013). Not only long term funds and their cost affect the profitability of a firm but even working capital has an impact on profitability because effective working capital management is about striking a tradeoff between profitability and liquidity. It is concluded that to maintain it further, to run the business long term. The Indian automobile industry has been recording tremendous growth over the years and has emerged as a major contributor to India's Gross Domestic Product. The industry currently accounts for almost 7 per cent of the country's GDP and employs about 19 million people both directly and indirectly.

Dharmaraj & Velmurugan (2014) in their paper entitled "Determinants Profitability in Indian Automobile Industry – Using Multiple Regression Analysis", they measure the profitability and to analyze the effects of various factors on the profitability in Indian Automobile Industry. The data were collected for fifteen years for selected sixteen companies Based on earlier empirical studies, the specific factors are chosen for analyzing determinants of profitability in Indian automobile industry. Multiple regression analysis has been applied to measure the effects of the independent variables on the dependent variable. On the basis of our regression model we have proved that profitability of the Indian Automobile Industry is highly dependent on Operating Ratio, Current Ratio, Return on Capital Employed Ratio, Net Income to Total Debts Ratio, Inventory Turnover Ratio and Long Term Debt to Equity Ratio respectively. Government should encourage exports of this industry by providing required infrastructure and reliefs to enhance performance. It should continue the importance given to this industry to have a better growth of Indian economy.

Jami and Bahar (2016) have analyzed performance in the Indian automobile industry by means of ratio. The study shows the importance of profitability in evaluating performance of a firm by highlighting specific profit potentials as indicated by ROE, ROA ROS, and operating ratios in the automobile industry. The study is for the period from 2008 to 2014. The sample selected is ten automobile companies from CNX auto INDEX of Bombay Stock Exchange. Analysis of Regression coefficient, ANOVA and Standard deviation are adopted for analysis and interpretation of results. The study found out that there is no significant relationship between the independent variables of ROA ROE, ROS, and operating ratios and the dependent variable of share price.

Sneh Lata & Robin Anand, (2017) in their article entitled "A Study on Liquidity and Profitability Analysis of Selected Companies of Indian Automobile Industry", this study examines the liquidity and profitability position of selected companies of automobile industry for the past five years. It involves in-depth analysis of performance of the selected companies with the help of key ratios, statistical analysis and Anova. This paper has been highlighted the liquidity and profitability position of automobile industry. Hence, it is suggested that all companies should maintain ideal current ratio & quick ratio. Performance of Mahindra and Mahindra Ltd. and Maruti Suzuki India Ltd. is quite satisfactory but as so far Tata company performance going down year by year. Tata Company needs to generate good profits and also maintain liquidity position to face the competition in industry.

STATEMENT OF THE PROBLEM:

In today's highly competitive era where trade barriers are reducing in the international market, survival of any industry depends on its cost advantage over others. The rising productivity levels, that are associated to lower costs and increased production play a crucial role in the economic growth of a nation and also ensure sustained competitiveness at global front. Scarcity of resources has been recognized as a limiting factor on the process of economic growth. It is relevant to mention here that output expansion based on increased use of resources may be feasible but it cannot be sustainable. Therefore, efficiency or productivity of resources becomes a critical factor in economic growth. The optimum utilization of resources, efficient management of activities, control on the costs and expenses, and enhancement of productivity is essential for the survival of the organization. Financial performance analysis is the process of determining the operation and financial characteristics of affirm from accounting and financial statements. Profitability of the automobile industry is low due to the high cost of production. How do these affect the profitability? There are other related questions which surface while examining the profitability performance of select automobile units. The present study is an attempt in that direction.

Sample Design:

According to the Society of Indian Automobile Manufacturers (SIAM), the universe for the study consists of 50 companies. For the purpose of the study the top 6 companies have been selected conveniently that have highest sales and production. The selected sample companies included viz., Ashok Leyland Ltd., Bajaj Motor Ltd., Hero Motocorp Ltd., Maruti Suzuki India Ltd., Mahindra & Mahindra Ltd., and Tata Motors Ltd.

Period of the Study:

The period of the study was taken for ten years i.e., from 2008-09 to 2017-18.

Sources of Data:

The study is based on the secondary data only. The secondary data have been collected from books, journals, magazines, daily newspapers, Internet, Society of Indian Automobile Manufacturers (SIAM), published annual reports of the select Automobile companies in India and Automobile industry annual review etc.

Tools of Analysis:

The simple mathematical and statistical tools are used as measures for judging the degree of efficiency of

financial analysis of the select Automobile companies in India. Further, various statistical tools are deployed such as percentages, ratios, mean, Standard Deviation, Co-efficient of Variation and 'F' test are applied at an appropriate context to analyze the data.

OBJECTIVES OF THE STUDY:

The study is primarily aimed at examining various dimensions of management of finances of select Automobile Units. The specific objectives set for the study are:

- ➤ to ascertain the Gross Profit ratio of Select Automobile Units in India
- > to evaluate the Net Profit ratio of Select Automobile Units in India
- ➤ to analyze the Operating ratio of Select Automobile Units in India and
- > to assess the efficiency of Return on Investment (ROI) of Select Automobile Units in India

HYPOTHESES OF THE STUDY:

The following hypotheses are formulated by based on above objectives:

- > There is no significant difference Gross Profit ratios of Select Automobile Units in India
- > There is no significant difference Net Profit ratios of Select Automobile Units in India
- > There is no significant difference Operating ratios of Select Automobile Units in India and
- > There is no significant difference Return on Investment of Select Automobile Units in India

GROSS PROFIT RATIO:

It is the ratio of gross profit to net sales expressed as a percentage. It expresses the relationship between gross profit and sales. The basic components for the calculation of gross profit ratio are gross profit and net sales. A net sale means those sales minus sales returns. Gross profit would be the difference between net sales and cost of goods sold (Porter, 1980). Following formula is used to calculate gross profit ratios: Gross Profit Ratio = Gross profit / Net sales $\times 100$

				_		(per cent)
Year	Ashok Leyland	Bajaj	Hero	Maruti Suzuki	Mahindra & Mahindra	Tata
2008-09	24.41	21.89	25.23	20.59	27.97	24.85
2009-10	26.87	28.65	28.20	22.98	32.42	29.23
2010-11	25.75	25.16	23.79	20.68	29.57	26.77
2011-12	25.17	26.64	25.78	21.14	25.17	24.32
2012-13	25.62	26.70	25.60	25.40	23.85	23.68
2013-14	22.42	30.02	26.48	28.34	26.35	22.03
2014-15	25.46	30.10	26.99	29.94	27.19	22.77
2015-16	28.52	32.51	31.4	32.84	26.74	28.09
2016-17	28.98	31.84	32.45	31.46	26.48	27.04
2017-18	27.77	29.95	31.49	31.20	29.01	25.43
Mean	26.10	28.35	27.74	26.46	27.48	25.42
S D	1.99	3.26	3.02	4.87	2.42	2.34
C V	7.62	11.49	10.90	18.41	8.81	9.19

Table 1: Gross Profit Ratio of Select Automobile Companies in India from 2008-09 to 2017-18

Source: Annual Reports of Select Auto mobile Companies in India.

Table 1 defects the Gross Profit ratio of select automobile companies. Bajaj auto ltd recorded with 28.35 per cent was higher, followed by Hero Motocorp Ltd. (27.74 per cent), Mahindra & Mahindra Ltd. (27.48 per cent), Maruti Suzuki India Ltd. (26.46 per cent), Ashok Leyland Ltd. (26.10 per cent) and Tata Motors Ltd. (25.42 per cent). It indicates that the mean gross profit ratio of Bajaj Auto Ltd., was higher and the Tata Motors Ltd., was low. Calculated CV reveals that the Gross profit ratio of Ashok Leyland Ltd. 7.62 per cent was more consistent than the followed by Mahindra & Mahindra Ltd.(8.81 per cent), Tata Motors Ltd. (9.19 per cent), Hero Motocorp Ltd. (10.90 per cent), Bajaj Auto Ltd. (11.49 per cent) and less consistent of gross profit ratio of Maruti Suzuki India Ltd (18.41 per cent). It indicates that the Gross profit ratio of Ashok Leyland Ltd. 7.62 per cent Ltd. (11.49 per cent) and less consistent of gross profit ratio of Maruti Suzuki India Ltd (18.41 per cent). It indicates that the Gross profit ratio of Ashok Leyland Ltd. 7.62 per cent Ltd. (10.90 per cent), Bajaj Auto Ltd. (11.49 per cent) and less consistent of gross profit ratio of Maruti Suzuki India Ltd (18.41 per cent). It indicates that the Gross profit ratio of Ashok Leyland Ltd. 7.62 per

cent was more consistent and less consistent in Maruti Suzuki India Ltd. The Standard Deviation of Gross Profit ratio recorded a highest of 4.87 per cent in Maruti Suzuki India Ltd. and lowest of 1.99 per cent in Ashok Leyland Ltd.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	61.542	5	12.308	1.257	0.05
Within Groups	528.589	54	9.789		
Total	590.131	59			

ANOVA

Note: *significant at 5% level.

The calculated value of 'F' test is less than its table value at 5% level of significance. Hence, the null hypothesis is accepted. From the analysis, it can be concluded that there is no relationship between the gross profit ratio of select automobile companies in India.

Operating ratio:

The operating ratio indicates what per cent of sales has been consumed by the cost of goods sold and other operating expenses and what per cent of sales is left to meet interest, income tax, dividends and the firm's need to retain profit for expansion. A low ratio reflects efficiency while a high ratio denotes inefficiency of the conduct of business operations. To quote Kennedy, "the higher the ratio, the less favorable. Since smaller amount of operating income may not be sufficient to meet interest, dividends and other needs of the firm". Generally, the ratio should not exceed cent per cent because this would suggest that the operating revenue is not even sufficient to recover operating expenses. Following formula is used to calculate Operating ratios: Operating Ratio = Operating Expenses / Net sales $\times 100$

Table 2: Operating	Ratio of Select	Automobile Comp	oanies in India fro	om 2008- 09 to 2017-18

						(per cent)
Year	Ashok Leyland	Bajaj	Hero	Maruti Suzuki	Mahindra & Mahindra	Tata
2008-09	19.54	13.72	12.81	17.03	21.85	22.86
2009-10	19.16	10.89	12.52	14.02	18.52	22.17
2010-11	17.21	8.59	13.09	15.41	16.62	20.86
2011-12	18.14	8.33	15.09	17.27	15.16	20.27
2012-13	21.65	9.34	16.59	19.97	14.1	24.66
2013-14	24.54	10.54	16.85	21.45	16.98	31.73
2014-15	20.96	12.29	16.1	21.45	19.11	34.62
2015-16	19.37	12.79	17.39	22.19	18.38	29.29
2016-17	20.56	12.94	17.91	20.07	18.62	31.19
2017-18	19.45	12.19	16.83	19.54	19.26	25.90
Mean	20.06	11.16	15.52	18.84	17.86	26.36
S D	2.04	1.92	2.02	2.76	2.22	5.05
C V	10.16	17.18	13.00	14.67	12.45	19.15

Source: Annual Reports of Select Auto mobile Companies in India.

Table 2 portrays the mean operating ratio of select automobile companies. Bajaj Auto Ltd. registered 11.16 per cent was lower followed by Hero Motocorp Ltd. (15.52 per cent), Mahindra & Mahindra Ltd. (17.86 per cent), Maruti Suzuki India Ltd. (18.84 per cent), Ashok Leyland Ltd. (20.06 per cent) and Tata Motors Ltd. (26.36 per cent). It indicates that the mean gross profit ratio of Bajaj Auto Ltd., was better and the Tata Motors Ltd., was less efficiency. Calculated CV reveals that the operating ratio of Ashok Leyland Ltd. 10.16 per cent was more consistent than the followed by Mahindra & Mahindra Ltd.(12.45 per cent), Hero Motocorp Ltd. (13.00 per cent), Maruti Suzuki India Ltd (14.67 per cent), Bajaj Auto Ltd. (17.18 per cent) and less consistent of operating

ratio of Tata Motors Ltd. (19.15 per cent). It indicates that the operating ratio of Ashok Leyland Ltd. was more consistent and less consistent in Tata Motors Ltd. The Standard Deviation of operating ratio recorded a highest of 5.05 per cent in Tata Motors Ltd and lowest of 2.02 per cent in Hero Motocorp ltd.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1271.493	5	254.299	30.539	0.05
Within Groups	449.660	54	8.327		
Tota	1721.153	59			

ANOVA

Note: *significant at 5% level.

The calculated value of F test is more than its table value at 5% level of significance. Hence, the null hypothesis is rejected. From the analysis, it can be concluded that there is a relationship between the operating ratio of select automobile companies in India.

Net Profit Ratio:

Net profit ratio (NP ratio) establishes a relationship between net profit after taxes and sales. It indicates management's efficiency in manufacturing, administrating and selling the products. This ratio is the overall measure of the firm's ability to turn each rupee sales into net profit. If the net profit is inadequate, the firm will fail to achieve satisfactory return on shareholders' funds. Following formula is used to calculate Net Profit ratios: Net Profit Ratio = Net Profit / Net Sales $\times 100$

 Table 3: Net Profit Ratio of Select Automobile Companies in India from 2008- 09 to 2017-18

						(Per cent)
Year	Ashok Leyland	Bajaj	Hero	Maruti Suzuki	Mahindra & Mahindra	Tata
2008-09	3.18	7.78	10.40	5.96	6.39	3.90
2009-10	5.85	14.80	14.16	8.58	11.22	6.29
2010-11	5.68	20.88	10.02	6.30	11.33	3.77
2011-12	4.41	15.38	10.09	4.59	9.04	2.29
2012-13	3.47	15.22	8.91	5.49	8.29	0.67
2013-14	0.30	16.09	8.34	6.37	9.28	0.98
2014-15	2.47	13.02	8.65	7.43	8.53	(13.06)
2015-16	3.83	16.1	10.95	7.92	7.75	0.55
2016-17	6.11	17.58	11.86	10.79	9.03	(5.59)
2017-18	5.95	16.17	11.47	9.68	8.95	(1.76)
Mean	4.13	15.30	10.49	7.31	8.98	(0.20)
S D	1.87	3.34	1.75	1.95	1.47	5.58
CV	45.37	21.82	16.64	26.63	16.41	(2848.16)

Source: Annual Reports of Select Auto mobile Companies in India

Table 3 present the mean Net Profit ratio of select automobile companies. Bajaj Auto Ltd. recorded 15.30 per cent was higher followed by Hero Motocorp Ltd. (10.49 per cent), Mahindra & Mahindra Ltd. (8.98 per cent), Maruti Suzuki India Ltd. (7.31 per cent), Ashok Leyland Ltd. (4.13 per cent) and Tata Motors Ltd. (-0.20 per cent) was lowest Net profit ratio. It indicates that the mean Net Profit ratio of Bajaj Auto Ltd., was higher and the net Profit ratio was lower in Tata Motors Ltd. It is calculated CV reveals that the Net Profit ratio of Mahindra & Mahindra Ltd.(16.41 per cent), was more consistent than the followed by Hero Motocorp Ltd. (16.64 per cent), Bajaj Auto Ltd. (21.82 per cent), Maruti Suzuki India Ltd (26.63 per cent), Ashok Leyland Ltd. (45.37 per cent) and less consistent of Net Profit ratio of Tata Motors Ltd. (2848.16) per cent. It indicates that the Net Profit ratio of Mahindra & Mahindra & Mahindra Ltd was more consistent and less consistent in Tata Motors Ltd. The Standard Deviation of Net Profit ratio recorded a highest of 5.58 per cent in Tata Motors Ltd and lowest of 1.47 per cent in Mahindra Itd.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1138.308	5	227.662	48.228	0.05
Within Groups	254.906	54	4.720		
Total	1393.213	59			

ANOVA

The calculated value of 'F' test is more than its table value at 5% level of significance. Hence, the null hypothesis is rejected. From the analysis, it can be concluded that there is a relationship between the operating ratio of select automobile companies in India.

Return On Investment (ROI):

Return on investment denotes how well the management has used the funds supplied by the creditors and owners. Apart from this, it shows earning power of the operating assets. The higher the ROI, the more efficient the enterprise is in using the funds entrusted to it. This ratio provided an indication of the economic productivity of the capital. To put in a nutshell, ROI is the key indicator of overall profitability of an enterprise. The return on investment is calculated by multiplying the profit margin on sales with investment turnover i.e., Return on Investment (ROI) = Profit Margin x Assets turnover

						(Per cent)
Year	Ashok Leyland	Bajaj	Hero	Maruti Suzuki	Mahindra & Mahindra	Tata
2008-09	2.42	11.16	21.06	8.96	5.93	2.69
2009-10	4.56	19.94	26.19	15.27	12.93	4.44
2010-11	5.96	36.22	17.78	12.42	13.42	3.34
2011-12	4.75	27.11	24.05	7.33	12.04	2.28
2012-13	3.31	24.39	21.97	8.96	12.21	0.58
2013-14	0.23	21.98	20.89	9.11	12.01	0.67
2014-15	2.52	18.08	22.67	11.06	10.08	(9.49)
2015-16	5.39	23.3	25.38	11.66	8.70	0.45
2016-17	8.86	18.39	22.98	14.39	10.06	(4.24)
2017-18	9.42	17.08	22.09	13.01	9.19	(1.75)
Mean	4.74	21.77	22.51	11.22	10.66	(0.10)
S D	2.86	6.75	2.40	2.60	2.31	4.15
CV	60.27	30.99	10.68	23.21	21.66	(4032.80)

Source: Annual Reports of Select Auto mobile Companies in India

Table 4 shows that the mean Return on Investment of select automobile companies. Hero Motocorp Ltd. registered 22.51 per cent was highest followed by Bajaj Auto Ltd. (21.77 per cent), Maruti Suzuki India Ltd. (11.22 per cent), Mahindra & Mahindra Ltd. (10.66 per cent), Ashok Leyland Ltd. (4.74 per cent) and Tata Motors Ltd. (-0.10 per cent) had the lowest Return on Investment. It indicates that the mean Return on Investment of Hero Motocorp Ltd. was higher and the Return on Investment was lower in Tata Motors Ltd. Calculated CV reveals that the Return on Investment of Hero Motocorp Ltd. (10.68 per cent) was more consistent followed by Mahindra & Mahindra Ltd. (21.66 per cent), Maruti Suzuki India Ltd. (23.21 per cent), Bajaj Auto Ltd. (30.99 per cent), Ashok Leyland Ltd. (60.27 per cent) and less consistent of Return on Investment of Tata Motors Ltd. (-4032.80 per cent). It indicates that the Return on Investment of Hero Motocorp Ltd. was more consistent and less consistent in Tata Motors Ltd. The Standard Deviation of Return on Investment recorded is highest of 6.75 per cent in Bajaj Auto Ltd. and lowest of 2.31 per cent in Mahindra & Mahindra Ltd.

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3722.162	5	744.432	60.224	0.05
Within Groups	667.503	54	12.361		
Total	4389.665	59			

The calculated value of F test is more than its table value of at 5% level of significance. Hence, the null hypothesis is rejected. From the analysis, it can be concluded that there is a relationship between the Return on Investment of select automobile companies in India.

CONCLUSION:

The automobile industry of India is one of the largest when compared to the world market. Every household now has a vehicle and India is a home to 40 million passenger vehicles proving that the automobile industry has been able to provide the suitable match of vehicle for this large population of India. The automobile industry has continued its growth trajectory over the past few years. With the increasing growth in demand on back of rising income, expanding middle class and young population base, large pool of skilled manpower and growing technology. The Gross profit ratio of Ashok Leyland Ltd. 7.62 per cent was more consistent and less consistent in Maruti Suzuki India Ltd. The operating ratio of Ashok Leyland Ltd. was more consistent and less consistent in Tata Motors Ltd. The mean Return on Investment of Hero Motocorp Ltd. was higher and the Return on Investment was lower in Tata Motors Ltd. The mean Net Profit ratio of Bajaj Auto Ltd., was higher and the net Profit ratio was lower in Tata Motors Ltd. Tata Motors Ltd., had failed to control the operating expenses effectively. Therefore, this unit shall improve the volume of sales commensurate with the growth rate in operating expenses. Consequently, operating efficiency shall be increased. Further, these have to adopt standard costing, activity based costing and flexible budgetary control to control and push down the operating costs effectively. Tata Motors Ltd., shall take necessary steps to improve the gross profit margin as it had declined. To this end, manufacturing and administrative expenses shall be minimized. Tata Motors limited, Ashok Leyland Ltd., and Maruti Suzuki India Ltd., shall improve the net profit performance to withstand adverse business conditions and to sustain competition. The Tata Motors Ltd., and Ashok Leyland Ltd., shall improve the overall ROI as it was unsatisfactory. Mahindra & Mahindra Ltd. and Maruti Suzuki India Ltd., shall also increase the returns in relation to total capital invested to shift from the mixed profit performance to standard profit performance.

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