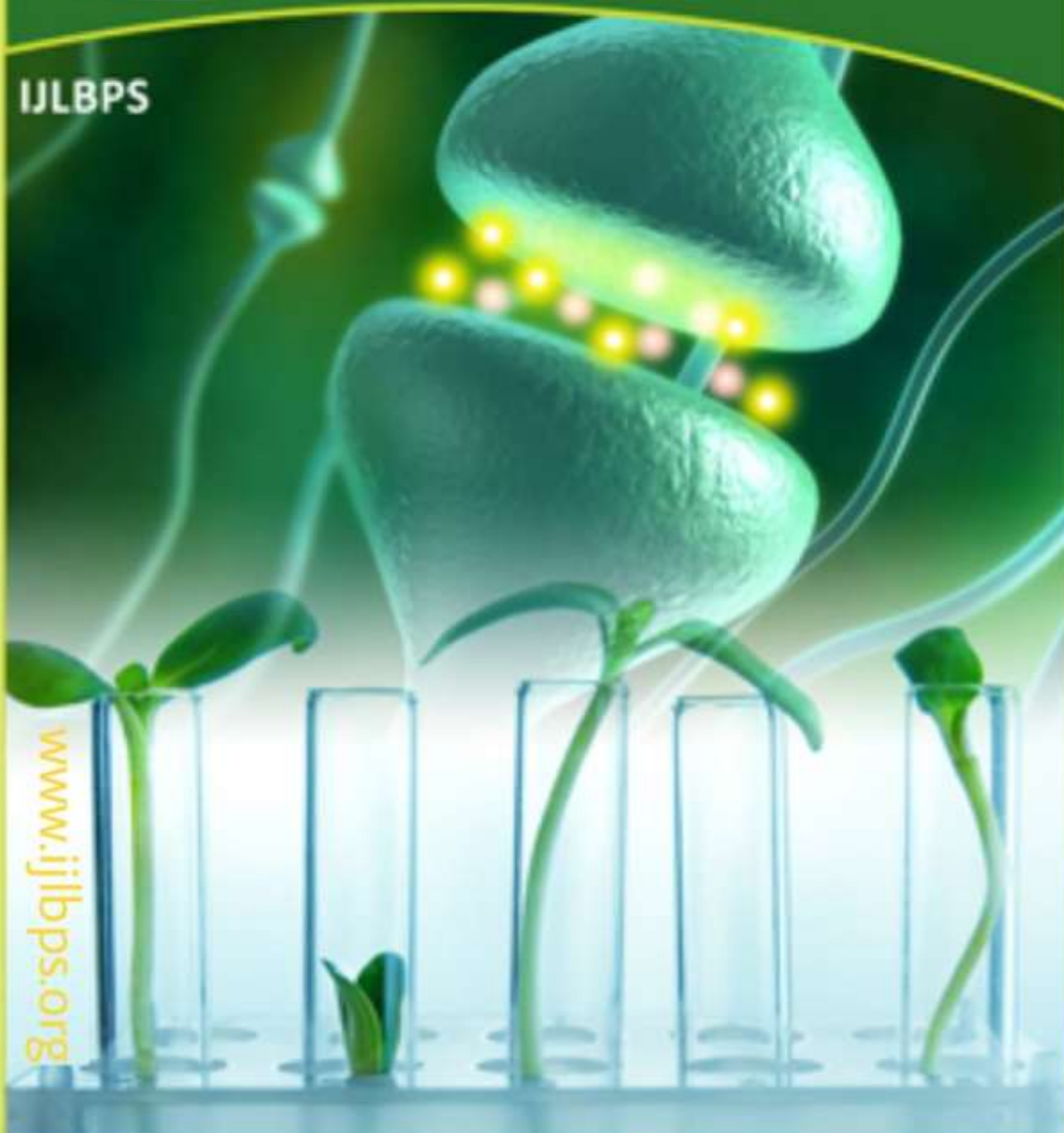




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ACOMPARATIVE RATIOANAL YSISOF ASHOKLEYL AND,EICHER MOTORS AND TATA MOTORS

CH.VenkataRamana,M.Tech(AssistantProfessor)

kvr.kokkilagadda@gmail.com

Risekrishnasaiprakasamgroupofinstitutions,

ABSTRACT

Defining a ratio is a way to describe the relationship between two items of equal magnitude in terms of how many times each one equals the other. In order to compare financial statements of a company, this ratio analysis of the automobile industry is useful. They help you understand a company's strengths, weaknesses, and overall performance. An understanding of these accounting ratios provides a greater picture of the company's environment than a review of all financial statements could. Analysis of Ashok Leyland and Eicher Motors, as well as Tata Motors profitability, leverage and efficiency, is the goal of this study.

Keywords:Profitability Ratio, Leverage Liquidity, and Efficiency in the Automobile Industry..

I.INTRODUCTION

India's automobile industry is one of the largest in the world. India is the world's second-largest manufacturer of two-wheelers and the fifth-largest manufacturer of heavy vehicles. There are 33 million individuals in the Indian vehicle market, making it the fourth-largest in the world. Autos are one of the country's most notable exports. In addition, India's government has taken a number of steps to become the world's leading producer of two and four-wheeled vehicles by 2020. Between the 2016 and 2020 fiscal years, domestic vehicle manufacturing climbed by 2.36 percent CAGR. Additionally,

the Indian government has pushed for 100% direct foreign investment in the vehicle sector. High R&D centers and low steel production costs are among the industry's primary advantages. Another is easy access to highly trained workers at reasonable wages. The quality and productivity of Indian-made automobiles are well-known. Following Indian firms include Eicher motors, Ashok motors and Tata motors.

II. REVIEWOFLITERATURE

1.T. Indian automakers' contributions to global mobility are explored by Hari Krishna murthi and Dr. R. Gopi (2019). On the secondary data, he used ratio analysis and ANOVA testing to analyze the liquidity position of the selected companies. He analyzed through his study that they are not maintaining the ideal current and quick ratio. The net working capital of the selected company like Eicher motors and Tata motors is

such as taxation, labour reforms, land acquisitions and skill development.

3. Vikram Shende (2014): This research study is based on the automobile industry as it is beneficial both for the existing as well as the new market offerings to attract the customers and meet their expectations. The main objective of the study is to identify various factors influencing the customers to buy an automobile vehicle.

It is highlighted by Sumesh Kumar & Dr. Gurbachan Kaur Bhatia (2014) that the Indian vehicle sector has a prominent position in the global market. They found a slew of connections between the automotive industry and other sectors. To examine the financial strength of two automakers following post-liberalization, this research examined the firms' liquidity, profitability, and solvency.

Using Kale (2011) as an example: In this paper, he explains how the automobile industry has progressed over time as a result of significant advancements in numerous fields. Automobile manufacturers in India have the resources and expertise to create cutting-edge goods and services for the automotive industry. As a result, this paper extends its scope to include a wide range of other businesses, such as automobiles.

III. RESEARCH METHODOLOGY

in a satisfactory position and the remaining companies in his study are not maintaining a satisfactory position.

2. Azhagaiah R. & Gunasegaran (2014): They through their study recognized that their key factor for the industry growth is India per capita real GDP growth. The government taking measures on the issue automobile industry through the facing various challenges

Research is nothing more than a systematic approach to solving a problem. Investigating and analyzing a wide range of resources and information allows one to come to accurate and well-supported conclusions. An activity's methodology is nothing more than a collection of procedures. There are many different ways to do research. This research included a look at the various automakers side by side. Using the four performance study pillars, an in-depth examination of financial statements has been conducted in order to assess their performance.

Objectives:

- To examine the financial performance of the Ashok Leyland, Eicher Motors and Tata Motors.
- To ascertain the financial efficiency of the selected companies.
- To determine the profitability position of these selected companies.
- To analyze the liquidity position of these selected companies.
- To analyze the leverage position of these selected companies.

Need of the study:

- ".management and external users of the company need to evaluate the profitability, solvency and liquidity of the company.
- The most common methods used for the analysis are the trend analysis, common- size statements and ratio analysis.
- These methods used the calculation and comparison of the historical company data of selected companies.

Scope of the study:

From 2016 through 2020, we will only be gathering financial data from the annual reports of the companies we've preselected for this research. Ashok Leyland, Eicher Motors, and Tata Motors are compared in this study.

Sources of data:

Data regarding the Ashok Leyland, Eicher Motors and Tata Motors has been collected from the annual report, websites, journals and financial statements of the companies respectively.

Sampling method:

The sample has been drawn from the list of companies coming under the automobile industry listed on the Bombay stock exchange. They are Ashok Leyland, Eicher Motors and Tata Motors. The sampling method is convenient sampling.

Period of study:

For the purpose of analysis of Ashok Leyland, Eicher Motors and Tata Motors industries five years

period taken from the financial period 2014-2015, 2015-2016, 2016-2017, 2017-2018, 2018-2019,

2019-2020.

Tools and techniques:

Ratio analysis: Profitability ratios

Solvency ratios Liquidity ratios Efficiency ratios

Arithmetic Mean

Multiple Regression

HYPOTHESIS:

DATA ANALYSIS AND INTERPRETATION

H0: There will be no significant difference between high or low financial efficiency of the company.

H1: There will be a significant difference between high or low financial efficiency of the company.

"To calculate the total asset turnover ratio, divide net sales by average total assets. Property, plant, and equipment, as well as current assets presented on the balance sheet after cumulative depreciation, make up what is known as the "net amount of total assets."

The following formulas are used to compute this ratio:

Average Total assets

Net sales

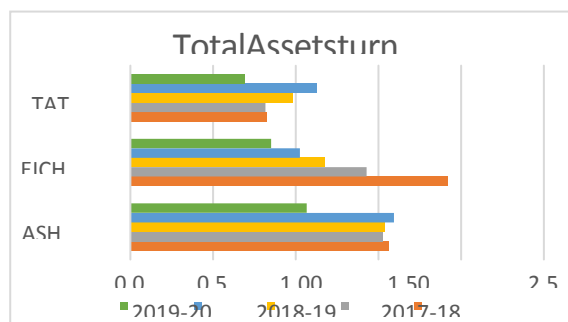
TABLE NO1: TOTAL ASSET TURNOVER RATIO OF SELECTED COMPANIES

	ASHOKLEYLAND			EICHERMOTORS			TATAMOTORS		
Year	Nets ales	Average total assets	Total assets Tr	Nets ales	Average total assets	Total assets Tr	Nets ales	Average total assets	Total assets Tr
2015-16	19993	12774	1.565	6957	3624	1.92	46883	56676	0.83
2016-17	21453	14040	1.528	7914	5540	1.43	48079	58878	0.82
2017-18	26,633	17,336	1.536	9162	7795	1.18	58234	59212	0.98
2018-19	29055	18224	1.594	9715	9477	1.03	68765	60909	1.13
2019-20	17467	16390	1.066	9008	10579	0.85	43486	62590	0.69
AVG			1.46			1.3			0.89

(Sources:COMPANYWEBSITE)

GRAPHICALREPRESENTATION:

GRAPH1:TOTALASSETSTURNOVERRATIO



INTERPRETATIONOFTHESELECTEDCOMPANIES:

The company's total assets turnover ratio illustrates how the fixed and current assets of a company are being used to produce revenues as a result of this research.

The larger the turnover of total assets, the better the performance. As a result, the highest market contributor is used to make the comparison. A stable ratio of Ashok Leyland vehicles has been maintained over the years, although this ratio will be reduced in 2019-2020. It has become increasingly difficult for Eicher Motors to take full benefit of its technology because of a decline in its total assets turnover ratio. Even if Tata Motors is on the rise, it is rising at a moderate rate, which could be dangerous for the company. However, it did decline in the 2019-2020 fiscal year..

COMPARATIVE ANALYSIS OF THE SELECTED COMPANIES:

- REGRESSION:**

MODEL	R	RSQUARE	ADJUSTED RSQUARE	STD. ERROR OF ESTIMATE
ASHOKLEYLAND	0.98919	0.9785	0.64517	4076.24
EICHERMOTORS	0.984788	0.969807	0.636474	1800.469
TATAMOTORS	0.983309606	0.966897782	0.633564448	11660.47903

- ANOVA TEST:**

MODEL		df	SUM OF SQUARES	MEAN OF SQUARES	F	SIGNIFICANCE F
ASHOK	Regression	1	2268989820	2268989820	136.5567273	0.007243495

From the above analysis of three companies, it is observed that Total assets Turnover

ratio of

ASHOKLEYLAND EICHER MOTORS
TATA MOTORS

2015-2016: 1.565% 2015-2016: 1.92% 2015-2016: 0.83%

2019-2020: 1.066% 2019-2020: 0.85% 2019-2020: 0.69

Average: 1.46 1.3 0.89

The above analysis shows that the Ashok Leyland is having the highest total assets turnover ratio when compared to Eicher Motors and Tata Motors.

LEYLAND	Residual	3	49847192.4	16615730.8		
	Total	4	2318837012			
EICHER	Regression	1	312373866.3	312373866.3	96.3615	0.010218792
MOTORS	Residual	3	9725062.655	3241687.552		
	Total	4	322098929			
TATA	Regression	1	11914546104	11914546104	87.62837	0.01122
MOTORS	Residual	3	407900313.7	135966771.2		
	Total	4	12322446418			

CONCLUSION:

From the above ANOVA Test, it can be seen that $F > \text{SIGNIFICANCE OF } F$. So, H_0 is rejected and there is a significant relationship between high or low efficiency for all these selected companies.

2. H_0 : There will be no significant difference between liquidity of the company.

H_1 : There will be a significant difference between liquidity of the company.

The ratio of a company's total cash and cash equivalents to its current obligations is known as the cash ratio. When it comes to short-term debt, this ratio measures a company's capacity to pay off its debts with cash or near-cash resources, such as easily traded securities.

The following formulas are used to compute this ratio:

$$\frac{\text{Cash and bank balance} + \text{Current Investments}}{\text{Current liabilities}}$$

TABLE NO 2: CASH RATIO OF SELECTED COMPANIES

	ASHOKLEYLAND			EICHER MOTORS			TATA MOTORS		
YEAR	CASH + CURRENT INVT S	CURRENT LIABILITIES	CASH RATIO	CASH + CURRENT INVT S	CURRENT LIABILITIES	CASH RATIO	CASH + CURRENT INVT S	CURRENT LIABILITIES	CASH RATIO
2015-16	1593	4890	0.326	628	1202	0.522	2535	18702	0.136
2016-17	1789	6421	0.279	905	1482	0.611	2764	21538	0.128
2017-18	4197	8819	0.476	1842	2195	0.839	3299	24219	0.136

2018 -19	1374	8789	0.15 6	3409	1978	1.723	2740	22940	0.119
2019 -20	1322	6999	0.18 9	5439	1861	2.923	4417	25811	0.171
AV G			0.28 5			1.324			0.138

GRAPHICAL

REPRESENTATION:

GRAPH2:CASHRATIO

INTERPRETATION OF THE SELECTED COMPANIES:

In the years from 2015-2016 (0.326 percent) to 2019-2020, Ashok Leyland's cash ratio has decreased (0.189 percent). Between 0.5 percent and 1 percent is considered optimum. This demonstrates that the corporation lacks the funds necessary to meet its current obligations. Since 2015-2016, Eicher motors' cash ratio has increased from 0.522 percent to 2019-2020. (2.923 percent). Between 0.5 percent and 1 percent is considered optimum. This shows that the corporation has a large amount of cash on hand that may be put to use on other endeavors. It also shows that the corporation is able to simply pay out dividends and repay its debtors. Tata Motors' cash ratio has risen steadily from 2015-2016, but it is still not enough to cover the company's expenses and make payments to its creditors by 2019-2020. For the company's financial health, this could lead to a rise in trade creditors.

COMPARATIVE ANALYSIS OF THE SELECTED COMPANIES:

INTERPRETATION OF THE SELECTED COMPANIES:

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COMPARATIVE ANALYSIS OF THE SELECTED COMPANIES:

From the above analysis of the three companies, it is observed that Cash ratio of

ASHOK LEYLAND
EICHER MOTORS
TATA MOTORS

2015-2016: 0.326% 2015-2016:0.522%
2015-2016:0.136%

2019-2020:0.189% 2019-2020:2.923%
2019-2020:0.171%

Average: 0.285 1.324 0.138

From the above analysis of cash ratio the Eicher motors has better liquidity but it has invest the excess funds to make better use of funds. Tata motors has the least liquidity position, it has control its expenses and unnecessary overhead costs.

REGRESSION:

MODEL	R	RSQUARE	ADJUSTED RSQUARE	STD. ERROR OF ESTIMATE
ASHOKLEYLAND	0.954686	0.911426	0.578093	638.9561
EICHERMOTORS	0.997699676	0.995404643	0.662071309	206.7694514
TATAMOTORS	0.355650024	0.12648694	-0.20684639	4282.213708

ANOVATEST:

MODEL		df	SUM OF SQUARES	MEAN OF SQUARES	F	SIGNIFICANCE F
ASHOK LEYLAND	Regression	1	12603154.23	12603154.23	30.87004	0.030900254
	Residual	3	1224794.77	408264.9232		
	Total	4	13827949			
EICHER MOTORS	Regression	1	27782696.18	27782696.18	649.8328	0.001535
	Residual	3	128260.8182	42753.60605		
	Total	4	27910957			
TATA MOTORS	Regression	1	7965888.289	7965888.289	0.434408	0.577573
	Residual	3	55012062.71	18337354.24		
	Total	4	62977951			

Ashok Leyland and Eicher Motors have F > SIGNIFICANCE OF F in the aforementioned ANOVA Test. Since the hypothesis H0 is rejected, we can conclude that the relationship between profitability and sales is statistically significant. There is no correlation between Tata Motors F SIGNIFICANCE F's profitability and its sales in this situation.

V. CONCLUSION

Ashok Leyland, Eicher Motors, and Tata Motors are compared in this comparative

ratio analysis based on their history and current financial performance.

Accordingly, all of the information in this graph has been obtained from audited financial statements, which can be found on the official websites of each company. For example, a company can manage its current and fixed assets as well as its liabilities such as accounts receivables and accounts payable based on the work done through the analysis of results and the findings of the study. Profitability is only one aspect of a company's

overall health; it can also pay attention to important aspects like solvency and liquidity..

The study shows the Ashok Leyland has a strong base in the market through its various product offerings leading to it be a major profit grosser among the others. It also effected to have a high net profit position with sales portion to be excellent.

The Eicher motors has the maximum liquidity, which is due to a number of factors, including the fact that it owes no money.

When it comes to profitability, Ashok Leyland leads the pack, but Eicher Motors has a solid ROA and ROE (ROE). It is apparent from the above report that Tata Motors hasn't been doing well over the last few years. In order to enhance sales, Tata motors has taken advantage of its technology to produce

unique and high-quality items at a reasonable price..

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