

A Comparative Study of Tata Motors and Maruti Suzuki in the Automobile Industry: A Financial Analysis

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ABSTRACT

Over the last several years, the automotive sector has continued to expand. The Indian car industry plays a key part in the global car market. With growing need for income backward, the growing middle-class and youthful populations, a huge pool of qualified workers and developing technology, are among the five leading auto-producers in the world by 2022. Profit is the motor that propels the company. Each company or organization should have sufficient earnings to survive and develop in the long term. Profitability is the capacity to take advantage of the whole commercial activity of an organization, corporation, company or business. It demonstrates how effectively management can benefit from all available market resources. I have chosen 2 car firms in India for this project. The main aim of this research is to analyze over the past five years the financial efficiency, liquidity, and profitability of the chosen car businesses (2017-2021). My research is based on secondary information. By utilizing various ratios, the financial situation is analyzed. The position of Maruti Suzuki & Tata Motors is determined by the research.

INTRODUCTION OF THE STUDY:

Profitability is the main objective of all enterprises. The company will not exist in the long term without profitability. It is thus extremely essential to measure present and historical profitability and to predict future profitability.

Revenue and expenditures measure profitability. Revenue is money from the operations of the company. For instance, money is created when crops and animals are produced and sold. But money from actions such as borrowing money does not generate income. This is essentially a cash transaction between the company and the lender to produce cash for business operations or the purchase of assets.

Expenditure is the cost of resources utilized or consumed by company operations. For example, seed maize is a cost of a farmer since it is utilized in the manufacturing process. A resource like a machine that has more than a year's useful life is utilized for years. Repayment of a loan is not a cost, just a financial transfer between the company and the loaning company.

Profitability is assessed by a "revenue statement." This is basically a report of revenue and expenditures for the whole company over a period of time (typically a year). A statement of income is typically used to assess the company's performance during the previous accounting period. The pro-forma income statement, however, evaluates the company's anticipated profitability for the next accounting period. If you

wish to forecast profitability for a specific project or section of a company, a budget may be utilized.

KEYWORDS DEFINITION:

1 Financial Analysis: Financial analysis means that the method of evaluating companies, projects, budgets and various financial transactions to achieve their performance and suitability is to enable managers to create future business decisions and review historic trends for past successes if they are carried out internally.

2. AUTOMOBIL INDUSTRY: The automobile trade includes a broad range of companies and organizations involved, including the style, development, manufacture, marketing and marketing of vehicles, and is one of the biggest economic sectors by revenue in the world.

3. SALES: marketing unit operations or the amount of goods or services over-submitted during a very specific period of time. SALES: The seller or the provider of the goods or services completes the procurement as a reaction to a purchase agreement, appropriation, request or immediate customer contact.

4. COMMERCIAL VEHICLES: emu Union defines as a "commercial motor vehicle" any motor vehicle designed to and able to carry by its diversity of structure and instruments,

CAPITAL EXPENDITURE: Capital expenditure, often referred to as CAPEX, is spent by a business to purchase, upgrade and maintain physical assets like property, building, industrial, technological or equipment. Capital expenditure CapEx is frequently utilized for new initiatives or investments by the company. In the economic sense, the acquisition of products is an investment which is not used today but which will be utilized in future to generate wealth. 15. 15. In finance, an investment is a monetary asset that is bought with the notion that the item will provide income or will be sold for profit at higher prices later.

RATIO CURRENT: -

The current quantitative relationship may be liquidity and a powerful quantitative relationship that evaluates the capacity of a company to pay its short-term obligations against its current assets. This quantitative relationship is a crucial liquidity live owing to the short-term square measure of obligations due inside the next year.

RATIO QUICK: -

The quick quantitative relationship or evaluation relationship may be a liquidity quantitative relationship that evaluates a company's ability to pay its current obligations after returning its debt using liquid assets alone. Square liquid assets represent current assets that can be reincarnated in 90 days or in a short time. Pay-out Dividend Ratio: payout dividend ratio I the proportion of the total amount of dividends given to shareholders in relation to the company's net income. This represents the proportion of profits distributed in dividends to shareholders. Cash earnings Retention ratio: the proportion of the income of a business not paid out in dividends but attributed to the income of that company. 36. It is the reverse of the payout ratio, as the retention rate is also known. The payout ratio is the dividend amount divided by the company by its net revenue.

TURNOVER RATIO INVENTORY:

The quantitative relationship of inventory sales is an associated quantitative power relation which indicates, however, that inventory successfully is controlled by test price of goods overwritten by average inventory for one amount. This measures how many times the average inventory is 'turned' or overwritten. In other words, it counts the number of times a company has overdrawn its overall average greenback inventory throughout the year.

FIXED ASSETS TURNOVER RATIO: the fixed asset turnover is the fixed asset ratio. It shows how the company uses its fixed assets to produce sales/a decreasing ratio may suggest that the company is over-invested in plants, equipment or other fixed assets.

NO. OF DAYS IN ABOUT CAPITAL: it indicates how many days a business needs to convert its working capital into sales. The longer a business has working capital, the longer it takes for the working capital to be transformed into revenue. The amount of working days indicates an inefficient business and vice versa.

ASSETS TURNOVER RATIO: Asset turnover ratio evaluates the capacity of a business to produce sale from assets by comparing net sales with total average assets.

LITERATURE REVIEW

1.KALE (2011), In his presentation he stated that Indian car industry has developed significantly in recent years as a result of technological development and the increase of technical expertise. The Indian car industry has businesses that have the capacity to create and provide new products and services. The well-established Global Brands are both on the Indian and other developing markets. His research investigations comprehend the internal and external variables that enabled industries or companies to form and build inventive capacities. It also points out that the Indian Government guaranteed industrial policy growth, but limited the development of creative capacity in automotive production. This article states that Indian businesses have been assisted to build creative skills

by the important characteristics such as the management vision and varied type of operational companies.

2. Sumesh Kumar & Dr Gurbachan Kaur Bhatia (2014) discusses the automotive industry since it is the leading participant in the world's economy, and not only in India. The industry also has many forward and reverse connections that affect industrial development. Year after year, the automotive industry faces several difficulties such as mergers and acquisitions etc., and has therefore become a new market. He examined two car businesses following the liberalization strategy in his article and revealed a comparative financial strength as well as a study of liquidity, efficiency and profitability etc.

3. T. Hari Krishnamurthi and Dr. R. Gopi (2019) discuss how the Indian car industry plays an essential role in contemporary times. He analyzed the liquidity of the chosen car businesses. In the examination of secondary data he utilized ratio analysis and ANOVA. He discovered that the chosen businesses could not keep their current and fast ratio optimal. Two businesses' net working capital status Eicher engines ltd. And Tata engines were at an acceptable level and not at a satisfactory level.

RESEARCH METHODOLOGY:

POPULATION:

All car businesses listed on the stock market.

SAMPLING: The sample was taken from the list of automotive firms registered on the stock market in Bombay. Which is LIMITED TATA MOTORS.

DESIGN SAMPLE:

Easy random sampling.

COVERAGE:

The research unit chosen focuses on a variety of profitability factors spanning five years.

COLLECTION DATE:

In my analysis, we utilized secondary data. (Annual reports, account balance sheet and p&l).

Data source:

Secondary data— The annual report, the websites, the journals and the company's financial statements must include data about Maruti Suzuki and Tata Motors, respectively.

FINANCIAL STATEMENT OF MARUTI SUZUKI

FINANCIAL STATEMENT OF TATA MOTORS

Duration of Study: For the purpose of analysis of industries 5 years' period taken:

Financial Year	2016-17	2017-18	2018-19	2019-20	2020-21
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Tools and Techniques for Analysis

1. Ratio Analysis
2. Arithmetic Mean
3. Standard Deviation
4. ANOVA
5. T- Test

NEED OF THE STUDY

1. Analysis of the financial statements identifies the patterns and connections between items in the financial statements.
2. Internal and external financial statements consumers must assess the profitability, liquidity and solvency of a business.
3. Trend analytics, common-size statements and ratio analysis are the most popular techniques used for analyzing financial accounts.
4. These techniques involve computations and comparisons between outcomes and historical data of companies, rivals.

THE STUDY OBJECTIVES

1. To assess the company's financial efficiency.
2. Profitability determination Companies' position.
3. To analyze the company's liquidity situation.

HYPOTHESIS

1. H1: There will be a major difference between the company's high or poor financial efficiency.

H0: The difference between high or poor financial efficiency of the business will not be substantial.

2. H1: The liquidity situation of a business will vary considerably.

H0: There will be no substantial difference in corporate liquidity.

3. H1: The gap between the company's high or low profitability will be considerable.

H0: There will be no substantial difference between the company's high or low profitability.

THE STUDY LIMITATIONS

1. The research focuses on historical stock performance and data, since secondary data suffer from secondary data constraints.
2. Financial relationship Analysis is influenced by many variables and owing to time constraints a thorough examination of all these aspects is impossible. Very few variables have thus been taken into account.
3. Messings were affected by excessive values and cannot display the relevant findings to make conclusions.
4. The market forces are affected by a variety of variables which cannot be defined and the study is thus restricted to the available figures.

STATEMENT PROBLEM:

There are so many industries that contribute to national economic growth and car operations that affect virtually all spheres of economic activities. They have far-reaching implications for the country's economic growth. The automotive industry is one of the major manufacturing sectors.

Although the automotive industry works efficiently, it faces numerous difficulties. One of the biggest issues in the automotive industry is inconsistency in its earnings. The profitability of the organization, which is influenced by many variables, must be increased. Profit is the motivation for any organization to be looked after. Every business thus needs to know its present earnings trend.

My study effort in this area is focused on evaluating TATA MOTORS LTD profitability using different ratios based on financial data from the last five years.

ABOUT OF THE COMPANY:

Tata Motors Limited (formerly **TELCO**, short for **Tata Engineering and Locomotive Company**) is an Indian automotive multinational corporation with headquarters in Mumbai, Maharashtra, India and Tata Group subsidiary. Its goods include passenger cars, trucks, vans, coaches, buses, equipment for construction and military vehicles. The 17th-largest manufacturer of motor vehicles worldwide, the fourth-largest maker of trucks and the second-largest bus producer by volume.

Founded in 1945 in conjunction with Daimler-Benz AG as a locomotive builder, in 1954 the business produced its first commercial vehicle which ceased in 1969. Tata Motors became the first Indian company to acquire the capacity to produce a competitive indigenous car with the introduction of Tata Sierra in 1991. In 1998, Tata introduced the India, the first wholly Indian passenger vehicle, and the Tata Niño, the most inexpensive in the world, in 2008. Tata Motors bought Daewoo Commercial Vehicle Company from South Korean truck maker in 2004, and acquired Jaguar Land Rover from Ford in 2008.

WORLD MARKET OVERVIEW:

The Indian Automotive Industry began growing in the 1970s. Cars were regarded a premium product between 1970 and 1984; production has been licenced, growth limited;

Each country's car industry is confronted with a variety of issues, especially in its market conditions, and the major markets with the highest growth levels in recent years are now contracted, including Brazil (-8.9%), Russia (-7.2%), India (-0.8%), Thailand (-23%), and Argentina (-34.3 percent).

These huge assembly marketplaces also dominate sales, where the price of transactions remains high. The attraction of extra profit via expanded retail and service networks and aftermarket/accessories highlights the necessity for sector players to concentrate both on developing and established fields.

China's macroeconomic climate remained dull in the fourth quarter of 2014, discussing intervention measures to assist resuscitate the market. Given this background, the steady rise of sales of new light vehicles, which reaches 13,6 million units by August, is even more remarkable. MPVs are still driving most of the momentum, up to 47.5% year-on-year, in comparison with the first 8 months of 2013.

INDIAN MARKET OVERVIEW:

The car sector is one of the main drivers of the country's economic development. The Indian car industry has gone far since the de-licensing of the sector in 1991 and the subsequent availability of 100 percent FDI via automated method. Today, virtually all global car manufacturers in the nation have established operations.

The world of the Indian automotive sector is as follows according to the Confederation of Indian Industry:

- Largest three-wheeler market
- Second largest two-wheeler market
- Tenth largest passenger car market
- Fourth largest tractor market
- Fifth largest commercial vehicle market
- Fifth largest bus and truck segment

However, the year 2013-2014 has seen a decline in the industry's otherwise smooth-running growth. High inflation, soaring interest rates, low consumer sentiment and rising fuel prices along with economic slowdown are the major reason for the downturn of the industry.

MAJOR PRODUCTS OF THE COMPANY:

TATA NANO:



Tata Motors claimed that it was the most inexpensive manufacturing vehicle in the world, with a cost of 100,000 lakh rupees, and in 2006 it revealed that the Nano is going to be produced in Singur, West Bengal. Local farmers immediately started opposing the new factory's forced purchase of their property. Tata initially postponed the introduction of Nano and then chose to built the vehicle in another state, Gujarat.

TATA BOLT:



Tata Bolt This is a new hatchback developed under its Falcon programme by Tata Motors. The vehicle and its sedan variant, the Tata Zest, was unveiled during Indian Auto Expo 2014. The vehicle is anticipated to debut on the Indian market following the introduction of its sedan release in the later half of 2014. Tata Bolt diesel variant will be equipped with a 1.3 litre, quadrajet diesel engine currently in service on Indica Vista and Manza, while a new 1.2 litre, 89 Bhp turbo-charged engine powers Tata Bolt's petrol version. The new vehicle is based on current platforms developed by Vista and Manza. The Tata Bolt will be manufactured next to Tata Vista and Tata Indica at the Pimpri-Chinchwad facility at Tata Motor.

TATA VISTA:



The Tata Indica Vista is the latest, enhanced version of this really popular vehicle. Tata Indica has sold many units in the nation and the premium vehicle maker of this country recognised that it was high time they upgraded the car so that the network was cast broader. The Tata Indica Vista has catered for a broader range of customers and has a wide variety of amenities.

INDUSTRY PROFILE: INDIAN AUTOMOBILE INDUSTRY

Indian automobile industry was the 4th biggest sector in the world with about 4.2 million unit yearly sales, excluding the two wheels in 2017. The industry's revenues are up 9.4% year on year. Indeed, India's automotive sector is rated seventh-largest in the world in 2018.

The two wheel segments strongly influence the number of cars on the middle class and the youthful people of the nation. The company's enthusiasm in exploring the rural market also leads to this industry's development.

India is also the world's largest exporter of cars. During the financial year 2019, it increased 14.5% and was projected to rise in 2016-2026 by a CAGR of 3.05%. Both the government and the top car managers take steps to make India a leader in both wheels and four wheels by 2020.

Size of the market:

In the 2013-2019 fiscal year domestic car sales were up 6.71 percent CAGR, with 26.27 million cars sold in 2019. Even domestic car production grew to CAGR 6.96 percent during the 2013-2019 financial year, with 30,92 million cars produced in the 2019 financial year.

In all categories of cars, domestic sales increase reported year-on-year was 17.55% in the 2019 financial year and sales of three wheels also grew by 10.27%.

In India, sales of luxury motorcycles surpassed one million units during FY 2018. During January to September 2018, BMW saw an 11% increase in sales in India at 7,915 vehicles. According to JD Power 2018 in India, Mercedes Benz is a leader in luxury cars' sales satisfaction.

It is also predicted that sales of two electric vehicles wheelers have surpassed 55,000 vehicles in 2017-2018.

Investments:

Over the last several months investors have invested a lot of money in different sectors of the business to expand and stay pace with increasing demand. During the period April 7, 2000 to March 2019, the Department of Industry and Internal Trade Promotion (DPIIT) attracted \$21.38 billion in foreign direct investment (FDI).

Recent investments and advancements in the car industry in India are as follows:

- Ashok Leyland projected a capital investment of €1,000,000 crores in order to introduce 20-25 new models of different categories of commercial vehicles (USD 155,20 million).
- Hyundai plans to spend US\$ 1 billion in India by 2020. In India, SAIC Motor would spend US\$ 310 million.
- Mercedes Benz has expanded its production capacity to 20,000 vehicles per year, the most in all luxury automobile production in India.
- Honda Motors Company plans its biggest investment in India to establish its third hybrid and electric car launching company at a cost of € 9,200 million (US\$ 1.31 billion).
- The Mahindra Electric Mobility has established its production centre in Bangalore, Karnataka for electrical technology with an investment of €100 million in order to expand its yearly capacity to 25,000 units.

COMPANY PROFILE: TATA MOTORS INDIA LTD.

Founder	J. R. D. Tata
Founded	1945; 75 years ago
Headquarter	Mumbai, India
Chairman	Natarajan Chandrasekaran
CEO	Guenter Butschek
Revenue	US\$42 billion
Operating income	US\$4.2 billion
Net income	-US\$4.0 billion(2019)
Total assets	US\$43 billion
Total equity	US\$8.5 billion
Number of employees	82,797

Limited Tata Motors, established by J.R.D. Tata is a major car manufacturer both in India and beyond. It produces commercial vehicles, buses, trucks and defense, etc. India's biggest car manufacturer, and also a share of the \$100 billion Tata Group, also has a worldwide network of 76 affiliates and subsidiaries including Jaguar Land Rover in the UK, South Korea,

Thailand, South Africa and Indonesia and Tata Daewoo in South Korea. In India, Tata Motors is one of the leading manufacturers of commercial vehicles with 9 million cars on Indian roads and top passenger cars.

Awards and accomplishments: • At the 2018 Renewable Energy India Awards 2018, Tata Motors Pune Plant was named "Renewable Energy Excellence User."

• At the 17th CNBC TV18 overdrive Categories 2017, Tata Tiago received 'compact car of the year' in addition to 17 other awards.

• Jaguar Land Rover won about 213 awards in FY16-17 globally.

• In January 2018, Jaguar Land Rover was awarded 'Largest Automotive Manufacturer in the UK.'

• In 2017, Tata Marco polo Motors ltd was awarded the 17th annual Genentech Environment Award.

RATIO ANALYSIS AND FORMULAS

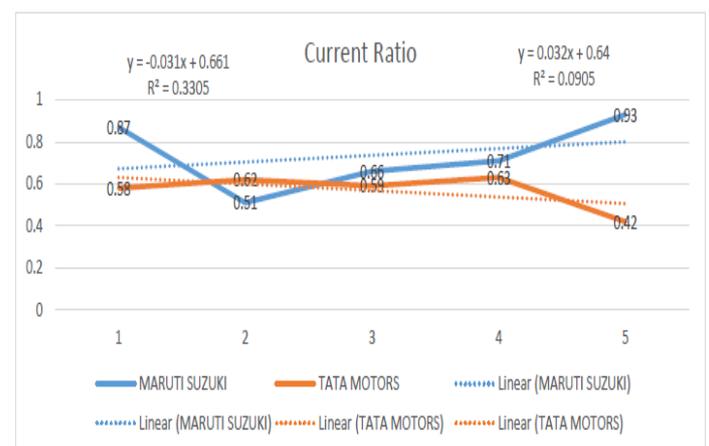
Type	S. No.	Ratio	Formula
Liquidity Ratio	1	Current Ratio	Current Assets / Current Liabilities
	2	Quick Ratio	Quick Assets / Current Liabilities
	3	Dividend Pay-out Ratio (%)	Dividend per share / earnings per share
	4	Cash Earnings Retention Ratio(%)	Net income - dividends / net income

Efficiency Ratio	5	Debtors Turnover Ratio	Net credit annual sales / average trade debtors
	6	Investments Turnover Ratio	Sales revenue / (shareholder equity + debt outstanding)
	7	Inventory Turnover Ratio	Cost of goods sold / average inventory
	8	Fixed Assets Turnover Ratio	Sales / fixed assets
	9	No. of days in Working Capital	(CA- CL)* 365 / Annual sales

Profitability Ratio	10	PBT Margin (%)	Revenue - (COGS - Depreciation expense - operating expense - interest expense)
	11	Net Profit Margin	Net income / Sales
	12	Return on Equity(ROE)	Net income / average total shareholders' equity
	13	Return on Assets (ROA)	Net income + interest expense * (1-tax rate) / average total assets

Table: CURRENT RATIO

CURRENT RATIO	MARUTI SUZUKI	TATA MOTORS	Average Current ratio
2021	0.87	0.58	0.725
2020	0.51	0.62	0.565
2019	0.66	0.59	0.625
2018	0.71	0.63	0.67
2017	0.93	0.42	0.675
Average	0.736	0.568	0.652
sd	0.168166584	0.076262704	



F-Test Two-Sample for Variances

	MARUTI SUZUKI	TATA MOTORS
Mean	0.736	0.568
Variance	0.02828	0.00727
Observations	5	5
Df	4	4
F	3.889958735	
P(F<=f) one-tail	0.108356954	
F Critical one-tail	6.388232909	

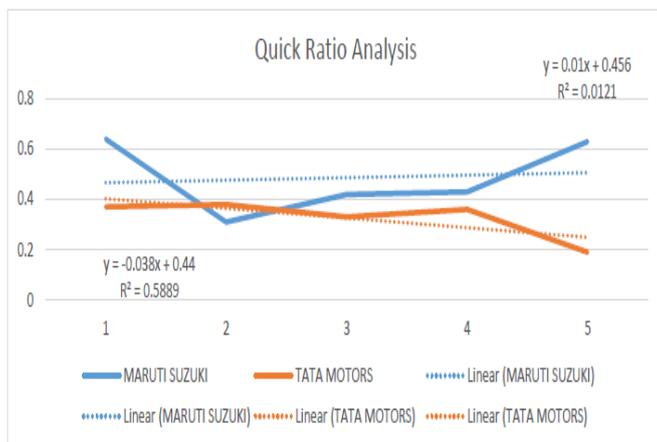
Interpretation

Maruti Suzuki's average current ratio is 0.73 and 0.56, respectively. Maruti Suzuki's performance was the lowest in 2020 and its best in 2017 was 0.93, while in 2017 it was 0.87. It is good at talking about Tata Motors compared to its percentage

in 2017. Both businesses do not do so well, although the performance of Maruti Suzuki is better than Tata Motors. The p-value is 0, 10 and 0, 05 and shows poor proof of the null hypothesis. Since the computed P value exceeds 0, 01, there is no substantial average variation in current average values across selected businesses. We reject the Null hypothesis, therefore.

Table: QUICK RATIOS

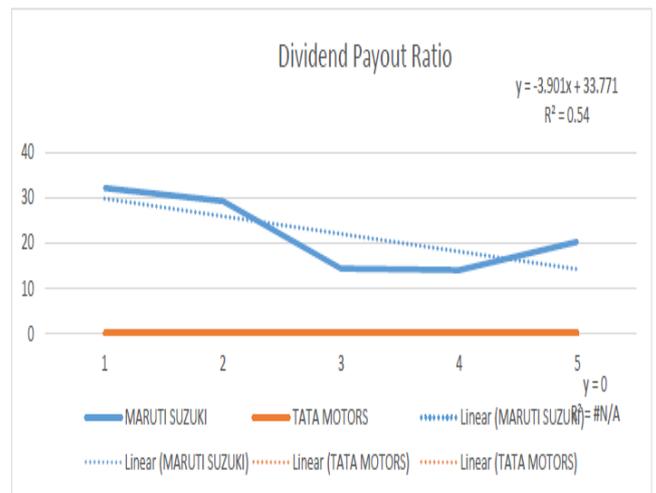
QUICK RATIO	MARUTISUZUKI	TATA MOTORS	Average Quick Ratio
2021	0.64	0.37	0.505
2020	0.31	0.38	0.345
2019	0.42	0.33	0.375
2018	0.43	0.36	0.395
2017	0.63	0.19	0.41
Average	0.4475	0.315	0.406
Sd	0.133260397	0.074330344	



Motors. When we look at the graph and the corrected squared R values, we can see here that Tata engines are on a better half than 0.5889 Maruti Suzuki, which is also not an excellent model but is on a better side of it. P-Wert > 0.05 so we obtain weak Null Hypothesis proof.

Table Dividend Pay-out Ratio

DIVIDEND PAYOUT RATIO(%)	MARUTI SUZUKI	TATA MOTORS
2021	32.21	0
2020	29.34	0
2019	14.38	0
2018	14.07	0
2017	20.34	0



F-Test Two-Sample for Variances

	MARUTI SUZUKI	TATA MOTORS
Mean	0.486	0.326
Variance	0.02073	0.00613
Observations	5	5
Df	4	4
F	3.381729201	
P(F<=f) one-tail	0.132480141	
F Critical one-tail	6.388232909	

t-Test: Two-Sample Assuming Unequal Variances

	MARUTI SUZUKI	TATA MOTORS
Mean	22.068	0
Variance	70.45037	0
Observations	5	5
Hypothesized Mean Difference	0	
df	4	
t Stat	5.879038961	
P(T<=t) one-tail	0.002091456	
t Critical one-tail	2.131846786	
P(T<=t) two-tail	0.004182913	
t Critical two-tail	2.776445105	

Interpretation

For both companies, the average speed ratio is 0.406. We can observe from the numbers that both businesses have a strong rapid year-by-year ratio. Maruti's speed ratio in 2020 was lowest, but in 2021 it retained the most rapid ratio. They kept their ratio at 0.33-0.37 in a row when talking about Tata

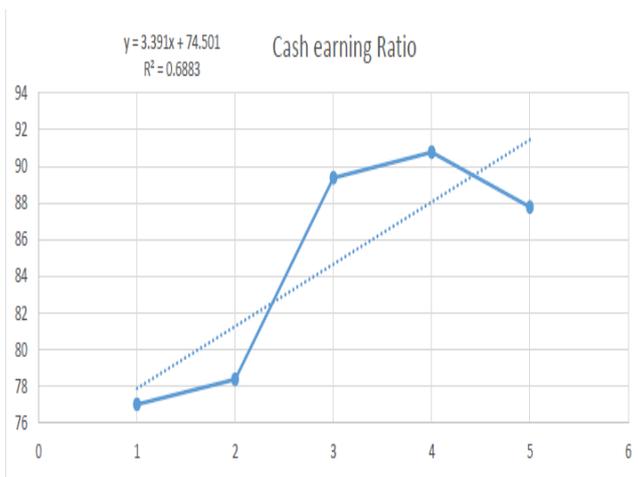
Interpretation

The diagram shows that Maruti Suzuki's dividend pay-out ratio is 54% compared with Tata's motors, which is just 16%. We may thus argue that it is advantageous to invest in Maruti

Suzuki's shares as opposed to the Tata engine shares. Tata Motors usually does not pay its owners a dividend, whereas Maruti Suzuki has grown to 32.21% compared to the last 4 years in 2021. As the p-value is less than 0.05, it demonstrates that it has a strong null hypothesis. There is a mean difference amongst businesses. We accept our hypothesis of zero.

Table: Cash Earnings Retention Ratio

CASHEARNING RETENTION RATIO(%)	MARUTISUZUKI	TATA MOTORS
2021	77.03	0
2020	78.39	0
2019	89.38	0
2018	90.78	0
2017	87.79	0



Anova: Single Factor

Groups	Count	Sum	Average	Variance
CASH EARNING RETENTION RATIO(%)	5	10085	2017	2.5
MARUTI SUZUKI	5	423.37	84.674	41.76463
TATA MOTORS	5	0	0	0

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	13015571	2	6507785	441060	6.34E-30	3.885294
Within Groups	177.0585	12	14.75488			
Total	13015748	14				

Interpretation

The preceding figure shows that Maruti Suzuki retains almost 63 per cent of revenue, whereas TATA engines maintain just 27 per cent of revenue. When we look at the following diagram and the study on Anova Test, we can see it as a superior model than Maruti Suzuki's cash retention ratio is superior than Tata's engines. It may be in the form that its dividend is purchased or invested in other forms, such as issue of shares, debentures, T-bill and government bonds etc. In 2021 Maruti Suzuki reverts his cash to 77.03%.

FINDING

- For the liquidity ratio we discovered that all other ratios, with the exception of the dividend payout ratio, indicate that the p-value ratio exhibits more than the significance level i.e. 0.05. We thus have poor support of the zero hypotheses and adopt the alternative hypothesis which says that the liquidity situation of the business differs significantly.

- In the efficiency ratio, we discovered that the p-value result was always more than the meaning level (0.05) and that the values were also high, which indicated that there were poor evidence for our Null hypothesis and that we thus accepted the alternative hypothesis. We may thus conclude that there is a significant mean difference between the two businesses' high and low efficiency ratios.

- We discovered in the profitability ratio that all the p-value ratios are less important than 0, 05 that provides extremely strong evidence to support our null hypothesis. We thus reject the alternative hypothesis and accept the zero. We may thus infer that there is no significant mean difference for high or low profitability between the two businesses.

CONCLUSION

The sales of TATA motors ltd were high, however it was noticed that the company's gross profit margin did not increase in accordance with or in proportion to its sales.

- The profit generated from the production and sale of the product likewise was modest compared to the amount of sales of the business. The business must thus lower its cost to pay its obligations and earn more after taxes.

- The net profit margin measuring the profitability of the sales of a business after all expenditures have been deducted, taxes & preferred share distributions decreased during that time from 6.33 to 0.97, which indicates a lower degree of corporate profitability.

- In comparison with the company's sales volume, earning taxes accessible to common holders were similarly low. This is because to the high costs of products sold and other expenditures.

- Finally the business loses, or maybe we can say lower their profitability, but they have excellent possibilities for future prospects, have carefully monitored the costs of sold products and have reduced their expenditures to prevent future severe financial circumstances.

References

- Kale Dinar- Sources of Innovation and Technology Capability Development in the Indian Automobile Industry Innovation Knowledge Development, the Open University <https://pdfs.semanticscholar.org/c03e/26216ebc44d65ba473c4f6834005da6a5bf5.pdf>
- Sumesh Kumar & Dr. Gurbachan Kaur Bhatia (2014) Financial Performance of Indian Automobile companies after liberalization: A Comparative study of Maruti Suzuki and Tata Motors. Vol. 3 /

No. 9 | September 2014
<http://www.garph.co.uk/IJARMSS/Sep2014/16.pdf>

3. T. Harikrishnamurthi and Dr. R. Gopi- "Liquidity Analysis of select automobile companies in India" V- VIII, Issue I, January/2019
4. Shende, Vikram (2014), "Analysis of Research in consumer behaviour of Automobile passenger car customer," *International journal of scientific and research publications*, 4(2), pp- 1-8.
<https://secondstaralaska.com/impact-of-marketing-strategies-on-customer-buying-behavior-in-indian-passenger-car-industry/>
5. P., Gunasegaran, Sankaran, C. and Azhagaiah, R. (2014), "Financial Performance of industry in Asian nation," *International Journal of research project*, VOL- 3(1), pp.-67-68
<https://www.ibef.org/industry/india-automobiles.aspx>
https://en.wikipedia.org/wiki/Maruti_Suzuki
6. <http://www.kalyanimotors.com/awards-and-achievements>
7. https://en.wikipedia.org/wiki/Tata_Motors
8. <https://www.capitalmarket.com/Company-Information/Information/About-Company/Tata-Motors/560>
9. <https://investors.tatamotors.com/financials/72-ar-html/awards-recognition.html>
10. <https://www.emis.com/php/companies/index/financials?pc=IN&cmpry=1626276&view-fins=all>
11. <https://www.emis.com/php/companies/index/financials?pc=IN&cmpry=1630510&view-fins=all&serp=1>