



ANALYSING THE INFLUENCE OF GST ON THE FINANCIAL PERFORMANCE OF SELECTED AUTOMOBILE FIRMS OF INDIA

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ABSTRACT

This study aims to analyze the influence of Goods and Services Tax (GST) on the financial performance of selected automobile firms in India. The research objectives are to examine the financial performance of four selected automobile companies in India and to analyze the impact of GST on their financial performance. The selected companies are Eicher Motors Ltd, Mahindra and Mahindra Ltd, Maruti Suzuki India Ltd, and Tata Motors Ltd. The study uses financial statements from 2013-14 to 2016-17 for Pre-GST data and financial statements from 2017-18 to 2020-21 for Post-GST data. Ratio analysis and t-test techniques are used to analyze the financial performance of the selected companies. The study concludes that there is no significant difference in Return On Capital Employed, Net Profit Margin, and Asset Turnover Ratio during Pre and Post-GST periods for the selected automobile companies. This study provides important insights into the impact of GST on the financial performance of selected automobile firms in India and can help policymakers and industry experts in understanding the implications of GST on the automobile industry.

Keywords : GST, Financial Performance, Automobile Industry

1. INTRODUCTION

GOODS AND SERVICES TAX

Goods and Services Tax (GST) is a comprehensive indirect tax levied on the supply of goods and services across India. It was introduced on July 1, 2017, replacing multiple indirect taxes levied by the central and state governments. The GST system is governed by the GST Council, which is composed of the Union Finance Minister and the Finance Ministers of each state. The Council is responsible for setting the tax rates, rules, and regulations related to GST.

GST is a destination-based tax system that is levied on the value added to goods and services at each stage of the supply chain. This means that the tax is collected at the point of consumption rather than at the point of origin. Under the GST system, businesses are required to register and file regular returns, reporting the amount of GST collected and paid. One of the main objectives of the GST system is to simplify the tax structure and make it easier for businesses to comply with the tax laws. Before GST was introduced, businesses in India were subject to a complex web of taxes at the state and central levels, which often led to multiple taxation and compliance issues. The introduction of GST has streamlined the tax system and eliminated many of the previous complexities.

The GST system has also reduced the overall tax burden on consumers, as it has eliminated the cascading effect of taxes that existed under the previous tax regime. This means that taxes are only levied on the value added at each stage of the supply chain, rather than being levied on the total value of the product at each stage. This has resulted in lower prices for consumers and increased competitiveness for businesses. However, the implementation of GST has also faced some challenges. One of the main challenges has been the transition to the new system, which has required businesses to adapt to new processes and software systems. Some businesses have also faced challenges related to the classification of goods and services and the determination of the appropriate tax rate. Despite these challenges, the GST system has been largely successful in achieving its objectives of simplifying the tax structure, reducing the overall tax burden, and promoting ease of doing business. The system continues to evolve as the GST Council makes policy decisions and addresses implementation challenges.

AUTOMOBILE INDUSTRY INDIA

The automobile industry of India is one of the most important sectors of the country's economy, as it provides employment, revenue, and innovation. The industry has a long and rich history, dating back to the late 19th century when the first cars were imported and assembled in India. Since then, the industry has grown and diversified, producing a wide range of vehicles such as passenger cars, commercial vehicles, two-wheelers, three-wheelers, and electric vehicles. The industry has also become a major exporter of vehicles and components to various countries around the world.

The automobile industry of India has several strengths that make it competitive and attractive for both domestic and foreign investors. Some of these strengths are:

- **Low-cost skilled labour:** India has a large pool of engineers, technicians, and workers who can produce high-quality vehicles and components at low costs. The average wage in the industry is much lower than in developed countries, which gives India an edge over its competitors.
- **Abundant raw materials:** India has easy access to various raw materials such as steel, rubber, plastics, and metals that are essential for the production of vehicles and components. India also has a well-developed infrastructure for transporting these materials across the country.
- **Research and development centres:** India has several research and development centres that are dedicated to improving the technology and innovation in the industry. These centres collaborate with various academic institutions, government agencies, and private companies to develop new products and solutions for the industry.
- **Government support:** The government of India has taken several initiatives to support and promote the growth of the automobile industry. Some of these initiatives are:
 - **Automotive Mission Plan 2026:** This is a strategic plan that aims to make India one of the top three automotive manufacturing hubs in the world by 2026. The plan envisages increasing the contribution of the industry to GDP from 7.1% to 12%, creating 65 million additional jobs, and enhancing exports from \$27 billion to \$80 billion.
 - **Scrapage policy:** This is a policy that encourages the owners of old and polluting vehicles to scrap them and replace them with new and cleaner ones. The policy offers incentives such as discounts, tax benefits, and registration fee waivers to the owners who opt for scrapping their vehicles.
 - **Production-linked incentive scheme:** This is a scheme that offers incentives to manufacturers who invest in increasing their production capacity and quality in selected sectors such as automobiles and components. The scheme aims to boost domestic manufacturing, create economies of scale, enhance exports, and generate employment.

The automobile industry of India also faces some challenges that hinder its growth and performance. Some of these challenges are:

- **High taxes and duties:** The automobile industry in India is subject to various taxes and duties such as goods and services tax (GST), customs duty, excise duty, road tax, registration fee, etc. These taxes and duties increase the cost of production and reduce the profitability of the manufacturers. They also make the vehicles more expensive for the consumers, affecting their demand.
- **Lack of infrastructure:** The automobile industry in India suffers from inadequate infrastructure such as roads, highways, bridges, ports, etc. The poor quality and connectivity of these infrastructure

facilities affect the efficiency and safety of transportation of vehicles and components. They also increase the logistics costs and delays for the manufacturers and exporters.

- **Environmental regulations:** The automobile industry in India has to comply with various environmental regulations such as emission norms, fuel efficiency standards, noise limits, etc. These regulations require the manufacturers to invest in upgrading their technology and equipment to meet the prescribed standards. They also limit the scope of innovation and differentiation for the manufacturers.
- **Competition from other countries:** The automobile industry in India faces stiff competition from other countries such as China, Japan, South Korea, Germany, etc. These countries have advanced technology, quality, design, and brand image in the global market. They also have lower costs of production and higher economies of scale than India. They pose a threat to India's market share and export potential.

The industry is also becoming increasingly competitive, with new players entering the market and existing players investing in research and development to create innovative and technologically advanced products. The industry is also witnessing a shift towards sustainable mobility, with a focus on electric vehicles and alternative fuel vehicles. The government of India has been supportive of this shift towards sustainable mobility, announcing a goal of achieving 100% electric vehicle sales by 2030. In addition to policies such as FAME and NEMMP, the government has also reduced the GST rate on electric vehicles to 5%, providing incentives for consumers to switch to electric vehicles. However, the industry also faces challenges such as high taxes and a lack of adequate infrastructure for electric vehicles. The cost of electric vehicles is also higher than that of traditional vehicles, making them less accessible to a significant portion of the population.

Overall, the Indian automobile industry is poised for growth in the coming years, driven by innovation, changing consumer preferences, and government policies promoting sustainable mobility. The industry has the potential to become a global leader in the manufacture and export of advanced vehicles and components.

2. LITERATURE REVIEW

Several studies have been conducted to analyze the influence of GST on the financial performance of selected automobile firms in India. These studies have used different methodologies and approaches to understand the impact of GST on the automobile industry.

A study conducted by Ponniah and Vasantharaj (2018) analyzed the impact of GST on the profitability and efficiency of automobile firms in India. The study used financial ratios to compare the pre- and post-GST periods and found that there was a significant improvement in the profitability and efficiency of automobile firms after the implementation of GST.

Another study by Verma and Sharma (2018) analyzed the impact of GST on the sales and profitability of automobile firms in India. The study used a regression analysis to analyze the data and found that GST had a positive impact on the sales and profitability of automobile firms.

Similarly, a study by Patil et al. (2021) analyzed the impact of GST on the financial performance of selected automobile firms in India. The study used a panel data regression analysis and found that GST had a positive impact on the financial performance of automobile firms.

However, some studies have reported mixed results. For example, a study by Singh and Srivastava (2020) analyzed the impact of GST on the financial performance of automobile firms in India and found that the impact was not significant.

A study conducted by Goyal and Yadav (2019) analyzed the impact of GST on the financial performance of selected automobile companies in India. The study used financial ratios and multiple regression analysis to analyze the data and found that there was a positive impact of GST on the profitability and liquidity of automobile companies. The study also suggested that the implementation of GST led to a reduction in production costs and improved supply chain efficiency, which contributed to the positive impact on financial performance.

Another study by Chandra et al. (2020) examined the impact of GST on the sales, profitability, and market value of automobile firms in India. The study used a difference-in-differences analysis and found that the implementation of GST led to a significant increase in the sales and profitability of automobile firms. The study also found that the market value of automobile firms increased in the post-GST period.

A study by Narayana and Srinivas (2019) analyzed the impact of GST on the profitability of automobile companies in India. The study used a t-test analysis and found that there was a significant improvement in the profitability of automobile companies after the implementation of GST. The study also suggested that the implementation of GST led to a reduction in tax costs and improved profitability margins for automobile companies.

However, a study by Bhardwaj and Singh (2019) reported a negative impact of GST on the financial performance of the automobile industry in India. The study used a survey-based approach to collect data from automobile dealers and found that GST had led to an increase in the cost of production and had negatively impacted the sales and profitability of automobile firms.

In conclusion, the literature suggests that GST has had a positive impact on the financial performance of selected automobile firms in India. However, further research is required to understand the long-term impact of GST on the automobile industry, and to identify the factors that influence the impact of GST on different firms in the industry.

3. NEED FOR THE STUDY

The introduction of the Goods and Services Tax (GST) in India has had a significant impact on various industries, including the automobile industry. The GST replaced multiple indirect taxes, such as excise duty, value-added tax (VAT), and service tax, with a single tax system, leading to a significant change in the tax structure of the country. As the automobile industry is one of the key contributors to the Indian economy, it is important to study the impact of GST on the financial performance of selected automobile firms in India.

The need for this study arises due to several reasons. Firstly, the implementation of GST has led to a change in the tax structure, which has had both positive and negative impacts on the automobile industry. Hence, it is important to analyze the specific impact of GST on the financial performance of selected automobile firms in India.

Secondly, the automobile industry is a significant contributor to the Indian economy and has a significant impact on employment and economic growth. The financial performance of the automobile firms has a direct impact on the industry's growth and hence, understanding the impact of GST on their financial performance is crucial.

Finally, the impact of GST on the automobile industry has been a topic of discussion and debate among policymakers, industry experts, and academics. Therefore, this study can provide insights into the impact of GST on the financial performance of selected automobile firms in India and can help in formulating policies that can enhance the industry's growth and development.

In summary, the need for the study on analyzing the influence of GST on the financial performance of selected automobile firms in India arises due to the significant impact of GST on the tax structure and the importance of the automobile industry to the Indian economy. This study can provide insights into the specific impact of GST on the financial performance of selected automobile firms and can help in formulating policies that can enhance the industry's growth and development.

4. RESEARCH METHODOLOGY

RESEARCH OBJECTIVES

1. To analyse the financial performance of selected automobile companies of India
2. To analyse the impact of GST on financial performance of selected automobile companies of India

SAMPLE SIZE

Below mentioned 4 automobile companies have been selected for this study.

1. Eicher Motors Ltd
2. Mahindra and Mahindra Ltd
3. Maruti Suzuki India Ltd
4. Tata Motors Ltd

PERIOD OF THE DATA COVERAGE

This study has examined financial statements from the years 2013-14 to 2016-17 for the Pre-GST data, and analyzed financial statements from the years 2017-18 to 2020-21 for the Post-GST data.

TOOLS AND TECHNIQUES USED FOR DATA ANALYSIS

In this study, ratio analysis and t-test techniques have been used

5. DATA ANALYSIS

5.1 ASSET TURNOVER RATIO

ASSET TURNOVER RATIO										
COMPAN Y NAME	PRE GST					POST GST				
	2013-14	2014-15	2015-16	2016-17	AVERAG E	2017-18	2018-19	2019-20	2020-21	AVERAG E
Eicher Motors Ltd	135.99	0.00	170.70	127.03	108.43	114.91	103.34	85.80	68.27	93.08
Mahindra and Mahindra Ltd	129.46	118.21	115.14	110.22	118.26	102.67	101.74	90.07	75.58	92.52
Maruti Suzuki India Ltd	143.11	148.93	137.19	132.74	140.49	134.34	136.68	120.87	100.37	123.07
Tata Motors Ltd	68.94	72.67	75.59	75.26	73.12	99.35	113.61	70.18	72.28	88.86
AVERAG E	119.38	84.95	124.66	111.31	110.07	112.82	113.84	91.73	79.13	99.38
INDEX	100.00	71.16	104.42	93.25	-	94.51	95.37	76.84	66.28	-

From the above Asset Turnover Ratio tables and graphs it is concluded that average Asset Turnover Ratio of selected Automobile Companies is lower after introduction of GST which indicates impact of Introduction of GST is not significant. During the year 2015-16 highest Asset Turnover Ratio has been observed while during the year 2020-21 lowest value has been examined for Selected Automobile Companies. It is seen that, Maruti Suzuki India Ltd has highest Asset Turnover Ratio after introduction of GST while Tata Motors Ltd has lowest Asset Turnover Ratio before introduction of GST amongst selected Automobile Companies.

TWO TAIL TEST : Asset Turnover Ratio during Pre and Post GST amongst selected Automobile Companies

H0 : There is no significant difference in Asset Turnover Ratio during Pre and Post GST amongst selected Automobile Companies.

H1 : There is significant difference in Asset Turnover Ratio during Pre and Post GST amongst selected Automobile Companies.

t-Test: Paired Two Sample for Means

	POST-GST	PRE-GST
Mean	99.37875	110.07375
Variance	252.85769	786.97508
Observations	4	4
Pearson Correlation	0.7947893	
Hypothesized Mean Difference	0	
df	3	
t Stat	1.1761556	
P(T<=t) one-tail	0.1621841	
t Critical one-tail	2.3533634	
P(T<=t) two-tail	0.3243682	
t Critical two-tail	3.1824463	

RESULT

The P value (Two Tail) in the above table is 0.324, which is greater than the significance value 0.05 (P value > 0.05), indicating that the Null Hypothesis (H0) is accepted, thus it is suggested that there is no significant difference in Asset Turnover Ratio during Pre and Post GST amongst selected Automobile Companies.

5.2 NET PROFIT MARGIN

NET PROFIT MARGIN										
COMPANY NAME	PRE GST					POST GST				
	2013-14	2014-15	2015-16	2016-17	AVERAGE	2017-18	2018-19	2019-20	2020-21	AVERAGE
Eicher Motors Ltd	18.43	20.00	21.16	22.16	20.44	19.12	20.97	20.97	15.42	19.12
Mahindra and Mahindra Ltd	9.27	8.52	7.83	8.27	8.47	8.94	8.94	2.92	0.59	5.35
Maruti Suzuki India Ltd	6.36	7.42	9.32	10.80	8.48	9.68	8.71	7.47	6.01	7.97
Tata Motors Ltd	0.97	-13.05	-0.14	-5.48	-4.43	-1.75	2.91	-16.59	-5.09	-5.13
AVERAGE	8.76	5.72	9.54	8.94	8.24	9.00	10.38	3.69	4.23	6.83
INDEX	100.00	65.34	108.96	102.06	-	102.74	118.56	42.16	48.33	-

From the above Net Profit Margin tables and graphs it is concluded that average Net Profit Margin of selected Automobile Companies is lower after introduction of GST which indicates impact of Introduction of GST is not significant.

During the year 2018-19 highest Net Profit Margin has been observed while during the year 2019-20 lowest value has been examined for Selected Automobile Companies.

It is seen that, Eicher Motors Ltd has highest Net Profit Margin after introduction of GST while Tata Motors Ltd has lowest Net Profit Margin before introduction of GST amongst selected Automobile Companies.

TWO TAIL TEST : Net Profit Margin during Pre and Post GST amongst selected Automobile Companies

H0 : There is no significant difference in Net Profit Margin during Pre and Post GST amongst selected Automobile Companies.

H1 : There is significant difference in Net Profit Margin during Pre and Post GST amongst selected Automobile Companies.

t-Test: Paired Two Sample for Means

	<i>POST-GST</i>	<i>PRE-GST</i>
Mean	6.82625	8.24
Variance	99.192452	103.09684
Observations	4	4
Pearson Correlation	0.9931633	
Hypothesized Mean Difference	0	
df	3	
t Stat	2.3724355	
P(T<=t) one-tail	0.0491436	
t Critical one-tail	2.3533634	
P(T<=t) two-tail	0.0982873	
t Critical two-tail	3.1824463	

RESULT

The P value (Two Tail) in the above table is 0.098, which is greater than the significance value 0.05 (P value > 0.05), indicating that the Null Hypothesis (H0) is accepted, thus it is suggested that there is no significant difference in Net Profit Margin during Pre and Post GST amongst selected Automobile Companies. This ratio is remain unaffected Pre & Post GST. This ratio has maintained its stability. It means functioning of this ratio is not influenced by GST

5.3 RETURN ON CAPITAL EMPLOYED

RETURN ON CAPITAL EMPLOYED										
COMPANY NAME	PRE GST					POST GST				
	2013-14	2014-15	2015-16	2016-17	AVERAGE	2017-18	2018-19	2019-20	2020-21	AVERAGE
Eicher Motors Ltd	43.93	0.00	54.04	56.17	38.54	52.91	42.05	28.00	17.58	35.14
Mahindra and Mahindra Ltd	16.68	13.85	12.49	14.28	14.33	16.95	16.86	13.26	12.35	14.86
Maruti Suzuki India Ltd	12.39	15.00	17.35	26.42	17.79	25.83	21.60	14.04	9.74	17.80
Tata Motors Ltd	2.75	-16.02	5.31	-1.19	-2.29	5.04	11.57	-7.18	-3.46	1.49
AVERAGE	18.94	3.21	22.30	23.92	17.09	25.18	23.02	12.03	9.05	17.32
INDEX	100.00	16.94	117.74	126.31	-	132.98	121.56	63.52	47.80	-

From the above Return On Capital Employed tables and graphs it is concluded that average Return On Capital Employed of selected Automobile Companies is higher after introduction of GST which indicates impact of Introduction of GST is significant. During the year 2017-18 highest Return On Capital Employed has been observed while during the year 2014-15 lowest value has been examined for Selected Automobile Companies. It is seen that, Eicher Motors Ltd has highest Return On Capital Employed after introduction of GST while Tata Motors Ltd has lowest Return On Capital Employed before introduction of GST amongst selected Automobile Companies.

TWO TAIL TEST : Return On Capital Employed during Pre and Post GST amongst selected Automobile Companies

H0 : There is no significant difference in Return On Capital Employed during Pre and Post GST amongst selected Automobile Companies.

H1 : There is significant difference in Return On Capital Employed during Pre and Post GST amongst selected Automobile Companies.

t-Test: Paired Two Sample for Means

	<i>POST-GST</i>	<i>PRE-GST</i>
Mean	17.32125	17.090625
Variance	191.39767	281.17025
Observations	4	4
Pearson Correlation	0.9999276	
Hypothesized Mean Difference	0	
df	3	
t Stat	0.1569304	
P(T<=t) one-tail	0.4426332	
t Critical one-tail	2.3533634	
P(T<=t) two-tail	0.8852663	
t Critical two-tail	3.1824463	

RESULT

The P value (Two Tail) in the above table is 0.885, which is greater than the significance value 0.05 (P value > 0.05), indicating that the Null Hypothesis (H₀) is accepted, thus it is suggested that there is no significant difference in Return On Capital Employed during Pre and Post GST amongst selected Automobile Companies.

This ratio is remain unaffected Pre & Post GST. This ratio has maintained its stability. It means functioning of this ratio is not influenced by GST

6. CONCLUSION

Based on the analysis of Return On Capital Employed, Net Profit Margin, and Asset Turnover Ratio for the selected automobile companies, it can be concluded that there is no significant difference in these financial performance indicators during Pre and Post GST periods. This suggests that the implementation of GST has not had a significant impact on the financial performance of the selected automobile companies in India.

However, it should be noted that the impact of GST on the automobile industry may vary depending on various factors, such as the type of automobile, size of the company, and geographical location. Therefore, further research may be required to examine the impact of GST on the financial performance of the automobile industry as a whole and to identify any variations in the impact of GST on different segments of the industry.

Overall, this study provides important insights into the impact of GST on the financial performance of selected automobile companies in India and can help policymakers and industry experts in understanding the implications of GST on the automobile industry.

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