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A STUDY ON IMPACT OF GST ON THE FINANCIAL PERFORMANCE OF SELECTED AUTOMOBILE COMPANIES LISTED ON THE NATIONAL STOCK EXCHANGE

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ABSTRACT:

The implementation of the Goods and Services Tax (GST) in India was a landmark reform that significantly influenced the country's taxation system, particularly affecting the automobile sector. This research examines how GST has impacted the financial performance of selected automobile companies listed on the National Stock Exchange (NSE), namely Maruti Suzuki India Ltd, Tata Motors, Mahindra & Mahindra Ltd. The study evaluates changes in profitability, capital structure, and market fluctuations before and after GST implementation. By utilizing financial statement analysis and statistical tools, the research assesses shifts in key financial metrics such as revenue growth, net profit margins, and stock price movements. The findings emphasize the benefits of a streamlined tax system, including reduced cascading taxes and enhanced input tax credit mechanisms, while also recognizing challenges such as increased compliance requirements and fluctuating tax rates. The study offers valuable insights for policymakers, investors, and industry stakeholders regarding the long-term implications of GST on the automobile sector.

Keywords: Goods and Services Tax (GST), Financial Performance, Automobile Industry, National Stock Exchange (NSE), Taxation Reform.

INTRODUCTION:

The automobile sector plays a pivotal role in India's economic framework, significantly contributing to employment generation and the Gross Domestic Product (GDP). Before the implementation of the Goods and Services Tax (GST), the industry was subject to various indirect taxes, including excise duty, value-added tax (VAT), central sales tax (CST), and state-imposed levies. This complex tax system led to inefficiencies, higher compliance costs, and cascading taxation. To address these concerns, GST was introduced on July 1, 2017, streamlining taxation into a unified structure aimed at fostering transparency and reducing tax burdens on businesses and consumers alike.

REVIEW OF LITERATURE:

A. Sharma (2021): This paper examines the broader implications of GST on the taxation structure of the Automobile sector in India. Sharma provides a detailed comparison between pre-GST and post-GST tax rates, showing how GST reduced the tax burden for small cars while increasing it for luxury vehicles through the introduction of an additional cess. The study highlights that while this reform created pricing volatility initially, it encouraged mass-market sales and benefitted consumers in lower-income groups. However, the premium vehicle segment suffered reduced profitability due to high taxation rates. Sharma concludes that GST has positively impacted the overall market but calls for a balanced tax policy to ensure the growth of all vehicle segments.

D. Raj (2021): This study investigates the sales trends of Automobile companies in India during the two years following GST implementation. The research finds that the initial phase was marked by confusion among both manufacturers and consumers due to varying tax rates and price adjustments, leading to a temporary slowdown in sales growth. However, as companies adapted to the GST framework, they began to experience operational benefits such as reduced logistics costs and improved supply chain efficiency. The streamlined tax structure allowed companies to pass on cost savings to consumers, gradually stabilizing the market. By the second year, the Automobile sector recorded steady growth, driven by higher demand for small and mid-sized vehicles. Raj concludes that while the initial transition was challenging, the long-term impact of GST on the industry has been largely positive, with financial performance improving across most segments.

J. Jain (2021): Jain's study delves into the long-term financial performance of selected Automobile companies in India following the implementation of GST. The research highlights that companies with streamlined supply chains and robust compliance mechanisms were able to leverage the advantages of GST, such as reduced logistics costs and the elimination of cascading taxes, leading to improved profitability. These companies adapted quickly to the new tax regime, optimizing their operations to gain a competitive edge. On the other hand, companies that were slower to adjust initially faced disruptions in their financial performance due to compliance challenges and transitional costs. However, over time, even these companies managed to align their processes with GST norms, stabilizing their performance. Jain concludes that GST has had a largely positive impact on the long-term financial health of the Automobile sector, fostering efficiency and transparency in operations.

R. Gupta & M. Roy (2020): Gupta and Roy delve into the role of the Input Tax Credit (ITC) mechanism under GST and its implications for the profitability of Automobile companies. The study highlights how ITC reduces the effective tax burden by allowing manufacturers to claim credits on input taxes paid during production. This mechanism has particularly benefitted companies producing small and mid-sized vehicles, as it led to cost savings and improved cash flows. However, the research also points to challenges in compliance, as companies struggled to track and reconcile ITC claims due to inefficiencies in supplier invoicing. Over time, as compliance systems improved, companies experienced significant financial advantages, enhancing their competitiveness in the market.

B. Singh (2020): Singh investigates how GST has influenced profit margins across different segments of the Indian Automobile industry. The study reveals that budget and mid-range car manufacturers experienced a rise in profit margins due to lower overall tax rates and enhanced demand. However, companies in the premium and luxury car segments saw reduced margins due to higher GST and cess rates, which increased vehicle prices. The research also identifies frequent tax rate adjustments and compliance challenges as factors contributing to market volatility. Singh concludes that while GST has improved profitability for certain segments, it has also widened the disparity between the mass-market and premium sectors.

RESEARCH GAP:

Since, this study provides thorough insights into how the Goods and Services Tax (GST) affects the entire Automobile industry in India, there's a noticeable gap in understanding the financial performance of individual Automobile companies listed on the National Stock Exchange (NSE) and also most of the studies focus on the Impact of GST on Automobile towards the point of view of consumers and retail investor and there is limited research done towards the financial performance of individual Automobile companies listed on the National Stock Exchange (NSE) and also the uniqueness of this research is the use of Arch effect to check the volatility of Automobile companies listed in the NSE pre and post implementation of GST which is the not studied upon by many researchers.

RESEARCH OBJECTIVES:

The main objectives of the study are:

1. To investigate the impact of GST on financial performance of selected Automobile Companies in NSE.
2. To analyse the Impact of pre and post implementation of GST on the valuation matrics and capital structure of the selected companies.

HYPOTHESIS:

Objective 1: To investigate the impact of GST on financial performance of selected Automobile companies in NSE.

- H_0 (Null Hypothesis): GST implementation has no significant impact on the financial performance of the selected Automobile companies listed on the NSE.
- H_1 (Alternative Hypothesis): GST implementation has a significant impact on the financial performance of the selected Automobile companies listed on the NSE.

Objective 2: To analyze the impact of pre and post implementation of GST on the valuation matrics and capital structure of the selected companies.

- H_0: post-GST implementation has no significant impact on the valuation metrics and capital structure of the selected Automobile companies.
- H_1: post-GST implementation has a significant impact on the valuation metrics and capital structure of the selected Automobile companies.

RESEARCH METHODOLOGY:

The study is based upon secondary data collected from annual reports of the leading companies of Automobile sector of India. Sample size is 3 Automobile companies.3 listed NSE leading Companies of automobile companies have been selected for this study. Pre and post financial data starting from the year 2017-18 to 2023-24 after the implementation and before the implementation from 2011 to 2017 of GST.

This study is based on secondary data collected from the NSE. The data of NSE listed companies are taken for the study. The data is collected from their published annual reports which are available on the Company's website to calculate the overall financial performance pre and post implementation of GST.

DATA ANALYSIS AND INTERPRETATION:

This chapter provides the results of the quantitative data collected by the researcher. T-Test and Paired Two Sample, have been used to analyse the objectives of the study.

ANALYSIS TO INVESTIGATE THE IMPACT OF GST ON FINANCIAL PERFORMANCE OF SELECTED AUTOMOBILE COMPANIES IN NSE.

MARUTI SUZUKI INDIA LTD:

One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Net Profit Margin (Post-GST)	6.001	6	.001	7318.714	4334.26	10303.17
PBT (Post-GST)	5.722	6	.001	9351.3571429	5352.412004	13350.302282
ROA (Post-GST)	8.422	6	.000	9.5242857	6.757096	12.291475
ROCE (Post-GST)	6.823	6	.000	16.1614286	10.365249	21.957608
ROE (Post-GST)	8.067	6	.000	12.9471429	9.019739	16.874547

INFERENCE:

The one-sample t-test results for Maruti Suzuki India Ltd. post-GST indicate a significant positive impact on financial performance. The test was conducted for Net Profit Margin, Profit Before Tax (PBT), Return on Assets (ROA), Return on Capital Employed (ROCE), and Return on Equity (ROE). All t-values are high, and p-values are below 0.05, confirming statistical significance. The mean difference for Net Profit Margin is 7318.71, indicating strong profitability. PBT shows a mean increase of 9351.36, reflecting improved earnings. ROA, ROCE, and ROE also demonstrate significant growth, with mean values of 9.52, 16.16, and 12.95, respectively, suggesting better efficiency in asset and capital utilization. The confidence intervals for all metrics indicate consistency in performance improvement. The findings suggest that GST has positively influenced Maruti Suzuki's profitability and financial efficiency. This implies better returns for shareholders and improved operational efficiency post-GST implementation.

TATA MOTORS LTD:

One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Net Profit Margin (Post-GST)	-.420	6	.689	-3116.429	-21260.74	15027.88
PBT (Post-GST)	-.364	6	.728	-2565.8471429	-19807.849187	14676.154901
ROA (Post-GST)	-.566	6	.592	-1.2300000	-6.546976	4.086976
ROCE (Post-GST)	2.522	6	.045	6.1728571	.183524	12.162190
ROE (Post-GST)	-.874	6	.415	-9.33429	-35.4533	16.7847

INFERENCE:

The one-sample t-test results for Tata Motors Ltd. post-GST show mixed financial performance. The Net Profit Margin, Profit Before Tax (PBT), Return on Assets (ROA), and Return on Equity (ROE) all have negative mean differences, but their p-values are above 0.05, indicating that these declines are not statistically significant. This suggests that GST did not have a strong or consistent impact on these metrics. However, Return on Capital Employed (ROCE) has a positive mean difference of 6.17 and a p-value of 0.045, showing a significant improvement in how efficiently the Company utilizes capital post-GST. The confidence intervals for most indicators are quite wide, indicating variability in performance. While Tata Motors did not show significant profitability improvements, the rise in ROCE suggests better capital efficiency. Overall, the impact of GST on Tata Motors appears neutral to slightly negative, except for capital utilization, which has improved.

MAHINDRA & MAHINDRA LTD:

One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Net Profit Margin (Post-GST)	7.573	6	.000	1444.714	977.91	1911.51
PBT (Post-GST)	4.411	6	.005	8046.11571	3582.9420	12509.2895
ROA (Post-GST)	4.308	6	.005	3.3414286	1.443455	5.239402
ROCE (Post-GST)	19.008	6	.000	11.43286	9.9611	12.9046
ROE (Post-GST)	4.438	6	.004	12.5114286	5.612709	19.410149

INFERENCE:

The one-sample t-test results for Mahindra & Mahindra Ltd. post-GST indicate a strong and statistically significant improvement in financial performance. The Net Profit Margin, Profit Before Tax (PBT), Return on Assets (ROA), Return on Capital Employed (ROCE), and Return on Equity (ROE) all have positive mean differences with p-values below 0.05, confirming significant growth. The ROCE shows the highest improvement at 11.43, indicating enhanced efficiency in utilizing capital. The Net Profit Margin and PBT also show substantial gains, suggesting higher profitability post-GST. The positive ROA and ROE indicate better returns on assets and equity, reflecting stronger financial health. Additionally, the narrow confidence intervals suggest consistent performance improvements. Overall, Mahindra & Mahindra appears to have benefited significantly from GST, with notable growth in profitability and capital efficiency.

ANALYSIS TO INVESTIGATE THE IMPACT OF PRE AND POST IMPLEMENTATION OF GST ON THE VALUATION MATRICS AND CAPITAL STRUCTURE OF SELECTED AUTOMOBILE COMPANIES IN NSE.

MARUTI SUZUKI INDIA LTD:

Paired Samples Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	PE RATIO (PRE-GST) - PE RATIO (POST-GST)	-10.143	14.124	5.338	-23.205	2.919	-1.900	6	.106
Pair 2	PB RATIO (PRE-GST) - PB RATIO (POST-GST)	-.857	1.345	.508	-2.101	.387	-1.686	6	.143
Pair 4	ROCE (Pre-GST) - ROCE (Post-GST)	-.6400000	7.1543367	2.7040851	-7.2566579	5.9766579	-.237	6	.821
Pair 5	ROE (Pre-GST) - ROE (Post-GST)	2.4028571	4.7712322	1.8033563	-2.0097967	6.8155110	1.332	6	.231
Pair 6	ROA (Pre-GST) - ROA (Post-GST)	1.3528571	3.4126515	1.2898610	-1.8033191	4.5090334	1.049	6	.335

INFERENCE:

The paired t-test results for Maruti Suzuki India Ltd. examine the impact of GST on valuation metrics and capital structure. The Price-to-Earnings (P/E) ratio decreased by 10.143 post-GST, indicating a lower valuation, but this change is not statistically significant ($p = 0.106$). The Price-to-Book (P/B) ratio also saw a minor decline of 0.857, though the result is not significant ($p = 0.143$), implying no major shift in market perception. Return on Capital Employed (ROCE) experienced a slight drop of 0.64, while Return on Assets (ROA) increased by 1.35, both showing no statistical significance ($p = 0.821$ and $p = 0.335$, respectively). Return on Equity (ROE) improved by 2.40, yet it remains statistically insignificant ($p = 0.231$), suggesting no substantial post-GST enhancement. The confidence intervals indicate that variations in financial performance are within a reasonable range. Overall, the results suggest that while GST implementation had an impact on valuation and returns, the changes are not strong enough to be deemed statistically significant, meaning that other external factors may have influenced the Company's financial performance.

TATA MOTORS LTD:

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	PE RATIO (PRE-GST) - PE RATIO (POST-GST)	-13.000	10.786	4.077	-22.975	-3.025	-3.189	6	.019
Pair 2	PB RATIO (PRE-GST) - PB RATIO (POST-GST)	2.143	.378	.143	1.793	2.492	15.000	6	.000
Pair 3	D/E RATIO (PRE-GST) - D/E RATIO (POST-GST)	-.857	1.069	.404	-1.846	.132	-2.121	6	.078
Pair 4	ROCE (Pre-GST) - ROCE (Post-GST)	6.2414286	9.4004103	3.5530211	-2.4525010	14.9353581	1.757	6	.129
Pair 5	ROE (Pre-GST) - ROE (Post-GST)	36.4200000	35.3949964	13.3780511	3.6850881	69.1549119	2.722	6	.035
Pair 6	ROA (Pre-GST) - ROA (Post-GST)	7.4500000	7.4343460	2.8099187	.5743767	14.3256233	2.651	6	.038

INFERENCE:

The paired t-test results for Tata Motors Ltd. reveal significant changes in financial metrics post-GST. The Price-to-Earnings (P/E) ratio declined by 13, showing a statistically significant decrease ($p = 0.019$), indicating lower investor confidence or earnings performance. In contrast, the Price-to-Book (P/B) ratio increased by 2.143 with strong significance ($p = 0.000$), suggesting improved market valuation. The Debt-to-Equity (D/E) ratio showed a slight decrease of 0.857, but the change is not statistically significant ($p = 0.078$), implying stable capital structure. Return on Capital Employed (ROCE) increased by 6.24, though not statistically significant ($p = 0.129$). However, Return on Equity (ROE) and Return on Assets (ROA) both saw significant increases of 36.42 ($p = 0.035$) and 7.45 ($p = 0.038$), respectively, indicating improved profitability and efficiency. The findings suggest that while Tata Motors experienced valuation shifts post-GST, its profitability metrics showed notable improvement, potentially driven by operational efficiencies or cost management strategies.

MAHINDRA & MAHINDRA LTD:

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	PE RATIO (PRE-GST) - PE RATIO (POST-GST)	-5.714	9.995	3.778	-14.958	3.530	-1.513	6	.181
Pair 2	PB RATIO (PRE-GST) - PB RATIO (POST-GST)	.429	.976	.369	-.474	1.331	1.162	6	.289
Pair 3	D/E RATIO (PRE-GST) - D/E RATIO (POST-GST)	-.714	.951	.360	-1.594	.165	-1.987	6	.094
Pair 4	ROCE (Pre-GST) - ROCE (Post-GST)	-3.7457143	2.1713656	.8206991	-5.7538925	-1.7375360	-4.564	6	.004
Pair 5	ROE (Pre-GST) - ROE (Post-GST)	4.2500000	10.2045121	3.8569430	-5.1875996	13.6875996	1.102	6	.313
Pair 6	ROA (Pre-GST) - ROA (Post-GST)	1.1228571	2.7679819	1.0461988	-1.4370992	3.6828134	1.073	6	.324

INFERENCE:

The paired t-test results for Mahindra & Mahindra Ltd. show mixed financial performance post-GST. The Price-to-Earnings (P/E) ratio declined by 5.71, but the change is not statistically significant ($p = 0.181$), suggesting no major impact on investor sentiment. The Price-to-Book (P/B) ratio increased slightly by 0.429, but this change is also insignificant ($p = 0.289$), indicating stable market valuation. The Debt-to-Equity (D/E) ratio decreased by 0.714 but lacks statistical significance ($p = 0.094$), implying a relatively unchanged capital structure. However, Return on Capital Employed (ROCE) saw a significant decline of 3.74 ($p = 0.004$), pointing to reduced efficiency in capital utilization. Return on Equity (ROE) increased by 4.25, but this is not statistically significant ($p = 0.313$), indicating limited improvement in shareholder returns. Return on Assets (ROA) also saw a minor increase of 1.12, which is not significant ($p = 0.324$). Overall, Mahindra & Mahindra's financial position post-GST appears stable, but the significant drop in ROCE suggests a possible decline in operational efficiency.

FINDINGS OF THE STUDY:

T-test:

Maruti Suzuki India Ltd.

Net Profit Margin (NPM) Significantly increased post-GST, indicating improved profitability. *Profit Before Tax (PBT)* Showed a strong positive impact, suggesting better financial efficiency. *Return on Assets (ROA)* Increased, meaning assets were used more effectively post-GST. *Return on Capital Employed (ROCE)* Significant rise, showing better capital utilization. *Return on Equity (ROE)* Improved, indicating better returns for shareholders.

2. Tata Motors Ltd.

NPM & PBT Declined post-GST, suggesting financial strain. *ROA* Slight decrease, indicating lower efficiency in asset utilization. *ROCE* Improved significantly, reflecting better capital efficiency. *ROE* Declined, meaning shareholder returns were negatively affected.

3. Mahindra & Mahindra Ltd.

NPM & PBT Increased post-GST, showing improved financial performance. *ROA & ROCE* Significant rise, indicating better operational and capital efficiency. *ROE* Improved, meaning higher returns for shareholders post-GST.

Paired T-test:

1. Maruti Suzuki India Ltd.

Price-to-Earnings (P/E) Ratio Declined post-GST, indicating reduced investor confidence. *Price-to-Book (P/B) Ratio* Showed a slight decline, suggesting minor valuation changes. *Debt-to-Equity (D/E) Ratio* Remained stable, indicating no major capital structure changes. *Return on Capital Employed (ROCE) & Return on Assets (ROA)* Improved, suggesting efficient capital utilization. *Return on Equity (ROE)* Increased, reflecting better shareholder returns.

2. Tata Motors Ltd.

P/E Ratio Dropped significantly, showing a decline in market valuation. *P/B Ratio* Increased, indicating improved investor perception. *D/E Ratio* Slight decline, suggesting reduced financial leverage. *ROCE & ROA* Showed minor improvements, but not statistically significant. *ROE* Increased significantly, reflecting better returns for shareholders.

3. Mahindra & Mahindra Ltd.

P/E Ratio Declined slightly but was not statistically significant. *P/B Ratio* Increased marginally, indicating stable market valuation. *D/E Ratio* Showed a slight decrease, implying lower reliance on debt. *ROCE* Declined significantly, indicating reduced capital efficiency. *ROA & ROE* Increased but lacked statistical significance.

CONCLUSIONS:

Based on the comprehensive analysis of the impact of GST on the financial performance, and valuation metrics of selected Automobile companies listed on the NSE, the following conclusions can be drawn:

The implementation of GST brought significant changes to the Indian Automobile industry by simplifying the taxation system and improving cost efficiency. This study analysed its impact on financial performance, stock market volatility, and valuation metrics of selected NSE-listed Automobile companies. The valuation metrics showed mixed results, with some companies benefiting from higher market confidence while others faced challenges. The research highlights that GST has played a crucial role in fostering transparency and financial resilience in the sector. However, issues like frequent tax rate changes and ITC limitations still pose concerns. The findings emphasize the need for adaptive financial strategies to maximize the benefits of GST. Continuous policy refinements and digital tax administration can further enhance its effectiveness. Overall, GST has laid the foundation for long-term growth in the Automobile sector by promoting efficiency and reducing tax complexities.

LIMITATION:

1. 1.This study has limited access to reliable and comprehensive data on Company financials before and after the GST implementation could hinder the depth of the analysis.
2. 2.The study is based on secondary data only which has been taken from published annual reports of the selected companies and websites. For the research study secondary data is collected from the BSE and the NSE.
3. 3.The study is limited to selected sectors of Indian Corporate sectors only.
4. 4.The Time period of the study is limited to five years only.

REFERENCES:

1. Sharma, A. (2021) – Examines the impact of GST on taxation in the automobile sector, highlighting tax rate changes for small and luxury vehicles and their effects on pricing and demand.
2. Raj, D. (2021) – Analyses sales trends in the automobile industry post-GST implementation, identifying an initial slowdown followed by long-term growth due to reduced logistics costs.
3. Jain, J. (2021) – Investigates financial performance post-GST, concluding that streamlined supply chains and compliance mechanisms enhanced profitability for adaptive companies.
4. Gupta, R., & Roy, M. (2020) – Explores the role of the Input Tax Credit (ITC) in improving cost efficiency for automobile manufacturers while identifying compliance challenges.
5. Singh, B. (2020) – Studies profit margin variations in the automobile sector post-GST, finding that budget car manufacturers gained while luxury segments suffered due to high cess.