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A STUDY OF GST'S EFFECTS ON INDIA'S AUTOMOBILE INDUSTRIES

Prof Somesh Kumar shukla[1] , Abhishek Dwivedi[2] ,Ms. Khushboo Rawat[3] and Prakhar[4] Gupta[4]
[1]ProfessorDepartment of Commerce University of Lucknow
[2]Research Scholar Department of Commerce University of Lucknow
[3]Assistant Professor Department of Commerce University of Lucknow
[4]Research Scholar Department of Commerce University of Lucknow
Email- dwivediabhishek146@gamil.com

Abstract
Due to its enormous population, India's automobile sector has a sizable market for bikes and vehicles. Anyone looking to buy a car is affected by even the smallest changes to the Goods and Services Tax, or GST, because they have an impact on the final price of autos. The introduction of the GST, a single tax, has had a favourable effect on the vehicle sector. Dealers of automobiles may now profit from Cess and Value Added Tax (VAT) paid as Input Tax Credits (ITC). As a result, the total cost of automobiles has decreased under the new tax system. And as a result of this, one may even envision luxury automobiles being more prevalent on the roadways. Additionally, electric vehicles have benefited from significant subsidies that have fuelled the sector's expansion.
In this article, we'll examine how the GST has affected the car industry.
Keywords: GST, Automobile Industry,

Introduction

India's automotive industry is diversified, including commercial vehicles, 2& 4-wheel vehicles, and it is slowly moving toward electrification. India is one of the biggest producers of vehicles in the world, dominating the markets for tractors, two- and three-wheelers. As a result, the Indian economy greatly benefits from the vehicle industry. Sales tax, road tax, sector tax, VAT, motor vehicle tax, registration charge, and other taxes that were formerly levied have now been included into the GST.

GST is anindirect tax reform a which create common national market under GST subsumed various indirect taxes like excise duty service tax VAT GST luxurious tax entertainment tax entry Tax Act. GST was introduced in India on 1st of July 2017 excluding Jammu and Kashmir but on 8 of July 2017 SGST act passed buy Jammu and Kashmir, CGST & IGST ordinance promulgated to extent Jammu and Kashmir. GST is a consumption-based tax applicable to the transaction of supply of goods and services subject to the certain exception. Goods and service tax in our country comprises integrated goods and service tax (IGST), union territory goods and service tax (UTGST), central goods and service tax (CGST), state goods and service tax (SGST).

In the pre-GST tax regime taxes by both Central &State Government such as Central sales tax, central excise duty,CVD, service tax, central surcharge and cess entertainment tax, entry tax, purchase tax, value added tax,and luxury tax etc. The above tax is are subsumed under GST which is in the nature of either on the supply of goods or services for the purpose of free flow of tax credit in intra and interstate level. Taxes and fees levy other than supply of goods and services would not subsume under GST.

India has significant automobile industry and play key role in the technology advancement and economy of a country. India has a strong in the sector of production of automobile globally. During the financial year 2022 India produce 22.93 million of vehicle. According to theEuropean automobile manufacturer association (ACEA) in the year of 2018 India got fourth ranked in the top ten global car-producing countries. Prominent factors influencing market growth is government initiatives and policies such as GST, cut in the corporate tax rate.

In the pre-GST regimes excise duty, NCCD, auto cess and VAT was livid by the government which result in the increase in the cost of automobile and seamless flow of credit on the component of automobile is also a big challenge but under GST all the demerit regarding existing taxes policy shall be eliminated which result in subsequentlyreduction in in the cost and price of automobile.

Review of literature:

Vasantha Gopal (2011) wrote a paper titled "Study of GST Studied in India: A Big Leap in the Indirect Taxation System" that concentrated on how GST affected different economic sectors. According to the report, GST is a significant advancement and a fresh drive for India's economic transformation. The paper's conclusion is that the GST's favourable effects on many industries depend on its fair and conventional design.

The study "Study on Impact of Goods and Services Tax Implementation in India" in the Pinki article by SupriyaKamma and Richa Verma (June 2017) focuses on the implementation of the goods and services tax in India, which is important to comprehend as both a system and a process. They came to the conclusion that by accepting the new tax reformation, businesses and consumers might assist the government in accelerating the expansion of the Indian economy.

Jain T., Agrawal, and Goyal (2017) argued that the impact of the GST on the real estate and automotive industries. The study suggests that both industries can benefit from the GST provided they are well prepared for changes in the business environment.

Chaudhri K., Singh S., and Kour M (2016) emphasised that research on the effects of the GST after it was implemented found that it helped eliminate several taxes, lightens the load currently imposed, and taxes both foreign and domestic items equally. Since there would be just one tax system, many indirect taxes such as sales tax and VAT are eliminated.

D. Kharde (2017) The report included the total impact of GST on the automobile sectors in India and conducted a comparison between the pre-tax policy and GST policy on the automobile industry, taking into account the impact of GST on the Indian car industry. Author also came to a conclusion on the effect of the GST on national economic growth.

Research Gap

The aforementioned literature analysis makes it abundantly evident that although there have been several research on GST and VAT in India, these studies were conducted when the GST framework was being developed. These studies mostly contribute to the discussion of the GST Law's design. Therefore, a number of presumptions that may or may not serve as the foundation for GST laws have been made in the context of these research. To the best of our knowledge and belief, no such in-depth analysis of the effects of real GST laws on the Indian automobile industry has been done. The current study is a modest attempt to close the gap.

Objectives of the study:

1) To examine the taxes imposed on various categories of automobiles
2) To analyse impact of GST on price and sale and production of automobiles industry.

Research Methodology

The purpose of this research is to describe the effects of the GST on the Indian automobile industry. The majority of the study will be based on secondary data. These data will be sought for from a variety of sources, including government websites, academic publications, newspapers, etc. The study is fully based on the secondary data which is collected from the Annual Survey of Industries (ASI) and siamindia.com Statistics - Performance of Auto Industry

GST's impact on the automobile sector

The expansion of the automotive industry has been aided by the introduction of GST. Working capital was restricted under the pre-GST system because of more regulation. The automotive sector was greatly impacted by the cascading tax effect and the need for massive financing. However, the GST on vehicles was reduced, which has had a favourable impact on this sector. Because to the COVID-19, the automotive industry has experienced a decline in short-term demand and a shift away from luxury goods, especially vehicles, during the past 1.5 years. There is a decline in manufacturing production, the withdrawal of unproductive markets, the decrease of unsold idle inventories, and the GST from the vehicle sector as a whole is reduced. Given how difficult the FY 2020–21 has been, several analysts anticipate that a tax rate reduction or waiver may soon aid one of the main sources of GST revenue for the government. So, let's examine the pre- and post-GST issues that affected the auto sector and assess how the GST affected car prices. **The effect of the pre-GST on automobile costs may be described as follows:**

Interest-free loans and subsidies are twocomponents under the pre-GST system. A sale was subject to theCST 7 VAT etc. are potential composite rate were applied to used automobile sales. VAT and excise taxes were not applicable on the sale and advance payment of deliveries. Many states gave their Original Equipment Manufacturers (OEMs) incentive programmes tied to investments.Excise duty andCVD, were not applicable to auto dealers or importers. Excise tax was due whenever items were delivered from the factory to the dealers, but no CST or VAT was assessed.

The pre-GST tax structure taxes had to be paid at every stage of supply chain until consume, in addition to losing out on the cumulative GST amounts.This resulted in a burden on the manufacturers, dealers, and OEMs in the form of consumer unhappiness. The post-GST tax structure is extremely logical and well-categorized to include more used-car and auto parts merchants in the tax system while delivering a framework with a lower total GST tax rate.

Rationalization and tax reduction:

The Integrated Goods and Services Tax, also known as IGST, State Goods and Services Tax, and Central Goods and Services Tax, also known as CGST, decide how GST will affect automobile prices. On July 1st, 2017, these taxes took the place of the Central Sales Tax, or CST, and VAT.

Credit could not be used to cover the production VAT on interstate sales. The GST Act, which allows for Input Tax Credit, or ITC, on the interstate transaction of services and products, has rectified this issue. This resulted in the removal of CST and a considerable cost saving. It might be argued that ITCs on rent, advertising, marketing, etc. also contributed to the rationalisation of operational costs.

Tax structure Pre and Post GST

Engine Capacity	**Excise**	**NCCD Auto cess**	**VAT**	**Total**	**Tax Under GST**	**Cess Under GST**	**Total**	**Differences (-/+)**
Small Cars <1200cc Engine capacity not exceeding 1200cc and length not exceeding 4000mm	**12.5 %**	**1.1%**	**14 %**	**28%(Approx.)**	**18%**	**1%**	**19%**	**09%(Approx)**
Mid-Size Cars from 1200cc to 1500cc Engine capacity not exceeding 1500cc and length not exceeding 4000mm	**24%**	**1.1%**	**14 %**	**39.1%**	**18%**	**3%**	**21%**	**18%**
Luxury Cars>1500 cc Engine capacity greater than 1500cc	**27%**	**1.1%**	**14 %**	**42.1%**	**28%**	**17%**	**45%**	**-2.9%**
SUV's >1500cc, >170mm ground clearance	**30%**	**1.1%**	**14 %**	**45.1%**	**28%**	**22%**	**50%**	**-4.9%**

SUVs (Engine capacity greater than 1500cc)								

Source:[*https://services.gst.gov.in*](https://services.gst.gov.in)
Note: -As per Master India report Three-wheelers were excluded of NCCD

- **Small Cars: GST on car**s like the Tata Tiago, Hyundai Grand i10, Volkswagen Polo, Maruti Suzuki Swift, etc., is 18% GST& 1% Cess which is a 09% lower rate compared to the 28% **(Approx.)**tax in the pre-GST era.
- **Mid-size Cars**: GST rates on mid-sized cars like the Maruti Baleno, Honda Amaze, Tata Nexon etc., were reduced from 39.1% to 21%.
- **Luxury Cars**: Luxury cars Pre-GST tax applicable to 42.1% and GST applicable to 45%including cess which result in increased 2.9% GST.
- **SUVs**: SUVs like the Jeep Compass, Renault Duster, Maruti Vitara, Mahindra TUV, Brezza etc., having Engine capacity greater than 1500cc, & exceeds 170mm ground clearance SUVs have GST rate 28% and cess 22%

For Example: - If the automobile manufacturer by manufacturer rupees 10,00,000. On different car having different capacity than billing was done as under Pre-GST & Post GST are as fallow

Valuation Pre & Post GST in case of Small Car

Particular	**Tax Before GST (Excise, Nccd + Auto cess, VAT)**	**Tax Under GST (including cess)**
Value of automobile	10,00,000	10,00,000
Excise 10,00,000*12.5%	1,25,000	-
VAT 11,25,0000 * 14%	1,57,500	-
GST 10,00,000*18%	-	1,80,000
NCCD/Cess11,25,0000* 1.1%/10,00,000*1%	12,375	10,000
Total Cost	12,94,875	11,90,000

Source:[*https://services.gst.gov.in*](https://services.gst.gov.in)

In the above table we found that the total tax liability in case pre-GST was Rs2,94,875, and Rs 1,90,000 under which result in the reduction in the cost of Automobile extent to Rs 1,04,875 in case of Small Car.

Valuation Pre & Post GST in case of Mid-size Cars

Particular	**Tax Before GST (Excise, Nccd + Auto cess, VAT)**	**Tax Under GST (including cess)**
Value of automobile	10,00,000.00	10,00,000.00
Excise 10,00,000*24%	2,40,000.00	-
VAT 12,40,0000 * 14%	1,73,600.00	-
GST 10,00,000*18%	-	1,80,000.00
NCCD/Cess 11,25,0000* 1.1%/10,00,000*3%	13,640.00	30,000.00
Total Cost	14,27,240.00	12,10,000.00

Source:https://services.gst.gov.in

Similarly, in the above table tax liability in case of Mid-size Cars under Pre-GST was Rs 14,27,240.00, and Rs 12,10,000.00 under which result in the reduction in the cost of Automobile extent to Rs 2,17,240.00.

Valuation Pre & Post GST in case of Luxury Cars

Particular	**Tax Before GST (Excise, Nccd + Auto cess, VAT)**	**Tax Under GST (including cess)**
Value of automobile	10,00,000.00	10,00,000.00
Excise 10,00,000*27%	2,70,000.00	-
VAT 12,70,0000 * 14%	1,77,800.00	-
GST 10,00,000*28%	-	2,80,000.00
NCCD/Cess 11,25,0000* 1.1%/10,00,000*17%	13,970.00	1,70,000.00
Total Cost	14,61,770.00	14,50,000.00

Source:https://services.gst.gov.in

Tax liability in the above table in case of Luxury Cars tax liability under Pre-GST will be Rs 14,61,770.00 and tax under GST will be 14,50,000.00 resulting reduction of tax is Rs 11,770.00.

Valuation Pre & Post GST in case ofSUVs

Particular	**Tax Before GST (Excise, Nccd + Auto cess, VAT)**	**Tax Under GST (including cess)**
Value of automobile	10,00,000.00	10,00,000.00
Excise 10,00,000*30%	3,00,000.00	-
VAT 13,00,0000 * 14%	1,82,000.00	-
GST 10,00,000*28%	-	2,80,000.00
NCCD/Cess11,25,0000* 1.1%/10,00,000*22%	14,300.00	2,20,000.00
Total Cost	14,96,300.00	15,00,000.00

Source:https://services.gst.gov.in

Tax liability in case of SUVs Pre-GST is Rs 14,96,300.00 and tax under GST Rs 15,00,000.00 resulting increase in Tax under GST is Rs 3,700.00.

Reason of increasing total cost of automobile under pre-GST

Under the pre-GST tax regime certain items of automobile are double taxed and earlier tax regime the difference between goods and services relating to certain automobile are not clearly define such as software was subject to both service tax and VAT because it involves sale goods and provision of services which increase in the cost of automobile.

Under the pre-GST Central VAT not included same value chain for addition in distributed trade after stage of production and state level value added tax and Centre value added tax load not removed on automobile which causes cascading effect of Texas which result in increase in the price of automobile.

Table no. 1.2

Domestic Sales (Crore)

Year	Domestic Sales (Crore Unit)	Percentage Change as Compared Previous Year
2010-11	0.69	100%
2011-12	0.98	142%
2012-13	1.23	178%
2013-14	1.67	242%
2014-15	1.85	268%
2015-16	2.12	307%
2016-17	2.18	316%
2017-18	2.49	361%
2018-19	2.8	406%
2019-20	3.11	451%
2020-21	3.42	496%
2021-22	3.73	541%

Source: siamindia.com Statistics - Performance of Auto Industry

Figure 1.2

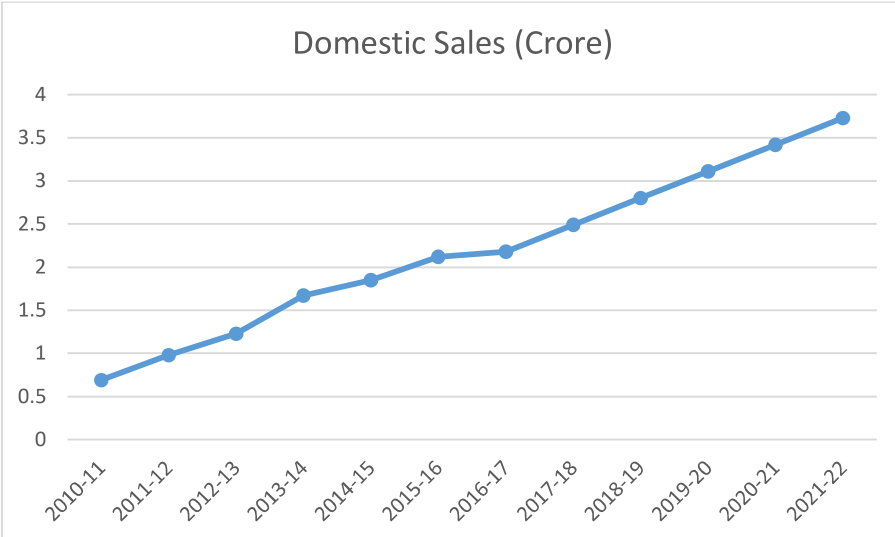

Figure 1.2 shows the percentage growth or changes taken place in the Domestic Sale of Automobile Industry from 2011-2022 the overall figure shows that the growth rate of the productivity is not constant of symmetric over the period there are many up and downs taken place in the growth in the Different year

Table No. 1.2

t-Test: Paired Two Sample for Means

	Pre-GST sales	*Post GST sales*
Mean	1.423333	2.955
Variance	0.299987	0.33635
Observations	6	6
Pearson Correlation	0.99544	
Hypothesized Mean Difference	0	
Df	5	
t Stat	-59.7965	
P(T<=t) one-tail	1.24E-08	
t Critical one-tail	2.015048	
P(T<=t) two-tail	2.48E-08	
t Critical two-tail	2.570582	

Table no. 1.2 which analysis Paired t test between the Pre GST Sales and Post GST Sales of Automobile Industry from 2010 to 2022 the value of P (P< 0.05) the Calculated P value is -0.00000000124. the mean value of Pre GST Sales is 1.42 and *Post GST Sales is* 2.955 which shows that there are positive changes taken place in post *GST Sales periods* because the average productivity has increases in variable *Post GST Sales as* compare to variable *Pre GST Sales.* The correlation between the variables is 0.99544 means 99 % variation is recorded in the variables i.e the variables is strongly positive correlated andt= -59.7965 revels that that is significant .This test is calculated at 5% degree of freedom.

The effect of the current GST on the automotive industry

The producer, dealer, and final customer have all benefited from the GST. The effects of the GST on the vehicle industry are listed below for each category; be sure to look at them:

Consumer: As you can see from the table above, compared to the rates in effect before the GST, the aggregate tax rate now assessed on autos has decreased dramatically. Owners now have to pay less tax than they did before to the introduction of GST because of the favourable deduction.

Prior to the implementation of the GST, dealers and importers were not eligible to claim VAT and excise duty. Since they may recoup the tax, they have already paid, importers and dealers in the automotive sector are benefiting the most from the new tax system.

Manufacturers: The new GST system replaces all prior levies that lower manufacturing costs overall. As a result, the new tax system is also benefiting automakers. Additionally, they are reaching more clients.

The implementation of GST has been a huge relief for the automotive industry since, in addition to the vehicle, services and warranties provided by automakers are also taxed, and there are discounts available at practically every level. Prior to the implementation of the GST system, several of them were not even taxed at all. Anyone can see that the GST system places a stronger emphasis on the consuming state than the origin state, which gives the automotive sector a far better growth structure.

GST Gains for the Sector

The implementation of GST has had a number of positive effects on the car industry. Dealers were unable to use the excise duty, CST, and other cess credits that had been paid under the previous taxing system, which drove up the cost of the car. The CGST, SGST, and IGST paid under the GST system will be entirely accessible as credit to the dealers involved in the continuing sale of such automobiles, preventing them from increasing the price of the vehicle. The cascading impact of taxes has been avoided by the GST, which has reduced the cost of vehicles. The following tables outline how GST affected buying costs:

The cost of excise duty on the spare parts and accessories that these dealers purchased increased under the previous administration because manufacturers of automotive parts, accessories, and components charged it on the MRP value less abatement, with the duty portion being paid on the value higher than the transaction value. Such additional expenditures have decreased as GST does not maintain this idea.

Another advantage is "ONE NATION, ONE TAX," which means that tax rates are now uniform across the nation. Therefore, consumer tax arbitrages at the state level are a thing of the past. As a result, the incidence of tax fraud caused by consumers purchasing automobiles from states other than their own has decreased. During the previous administration, vehicle dealers opened delivery showrooms on purpose in areas with lower taxes, and sales showrooms were accessible at the point of sale. Practically speaking, the need for multiple showrooms vanished with the implementation of GST, which prompted the industry to combine delivery showrooms and point-of-sale showrooms.

Prior to July 1st, 2017, output VAT could not be paid with credits from Central Transactions Tax (CST), which was charged on interstate sales. This problem has been resolved, and the interstate sale of goods or services is now subject to the Integrated Goods and Services Tax

(IGST), for which credit is easily accessible. Therefore, the removal of CST resulted in a significant cost decrease. Additionally, input tax credits on a variety of other operational expenses, including rent, advertising, and marketing, can now be claimed by sector, aiding in the rationalisation of operating costs.

The GST law allows for the elimination of Central Government and State Government Subsidies from the Transaction Value, which is a huge relief. As a result, the Government's significant subsidies to the manufacturers of electric vehicles will also result in enormous tax savings, which will ultimately benefit consumers. Therefore, in the event that any electric car receives government funding, GST will be applied to the transaction value alone, not the amount of the funding. The fact that this clause is included into the GST statute itself in explicit and unequivocal words helps to resolve any potential interpretation problems.

Dis-advantages of GST on the Sector:

On the other hand, under the GST, tax must be included to any coupons or warranty cards that are given to customers as part of the after-sales services. GST must be paid on the cash value of the products or servicesor boththat may be redeemed with the vouchers or warranty cards at the time of issue. Therefore, even though the vouchers are redeemable at a later time, working capital to the level of tax would be frozen at the time of their issuance.

Discounts are only exempt from the value of a supply under GST if they are listed on the invoice or if they are given as a result of a contract that was signed prior to or at the time of the supply. In the automobile sector, it is customary for the producers and importers to provide the dealers post-sale discounts while the dealers also provide consumers with promotional opportunities. These seasonal reductions wouldn't be associated with any particular bills. This would therefore create significant issues with taxation.

For the sale of automobiles as well as other ancillary services like insurance, accessories, etc., automotive dealers and manufacturers are required to levy a fee under the GST system. Future taxation of these goods would be quite difficult while taking into account the various tax treatment for composite and mixed products. As of right now, the GST policy wing has not provided any clarity for the vehicle sector and its varied selling packages, which might lead to litigation in the future.

Warranties and Coupons: These prevent the use of working capital since the GST levied on warranties and after-sales service vouchers given to customers is barred until they are redeemed.

Conclusion:

The car industry has benefited greatly from the implementation of the GST. Despite certain restrictions on working capital brought on by laws, the industry has benefited generally from the elimination of the cascading effect of taxes, the constant supply of credit, and the reduction in the number of taxes. However, the effects of COVID-19 have severely hurt this industry. Short-term consumer demand has been curtailed as a result of COVID-19, and it is also anticipated that long-term consumer tastes would shift away from luxury. As industrial capacity is being concentrated, businesses are anticipated to make strategic decisions, abandon unproductive local markets, and dramatically reduce output.

Unsold inventory building up would result in tax credits accumulating, which would diminish GST contributions to the exchequer. The financial year 2020–2021 would be one of the worst

for the automotive industry since demand would be at its lowest point and the government would be opposed to lowering tax rates, which may assist boost demand.
For end users who utilise tiny automobiles like the Datsun Go, Santro, etc., the rates and GST impacts on cars are customer-friendly because they only tack on a minimal 1% Cess on top of the decreased 18% GST. Vehicles with engines between 150 and 180cc now carry a 3% Cess on top of the 18% GST. The GST rate is now 28% + 17% Cess on bigger bikes with 350–500 cc engines like the Enfield 500CC and Harley Davidson. Luxury and big vehicles, such as yachts, private planes, and aeroplanes, will be subject to 28% GST and 15% Cess. In addition to them, freebies and warranties are now taxed.
The need of maintaining accounts and complying with GST has been emphasised by the developing network of vehicle parts merchants, used-car dealers, etc. For all retailers and business owners who want to make keeping track of accounts easier, Khatabook is a useful app. We hope that by writing this post, we were able to explain how the GST affects the car sector.

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