

# Study of Post-GST Consumer Buying Behaviour in Pune's Two-Wheeler Market

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*Abstract- The Indian automotive industry continues to be highly sensitive to changes in fiscal policy such as GST rationalization. Although tax rationalization is meant to encourage demand growth, consumer behaviours pertaining to buying decisions based on price sensitivity are largely unknown when dealing with high-population urban centers such as Pune. The automotive industry acts as an important factor driving economic growth in India, making huge contributions to the overall GDP and manufacturing of the country. In the current scenario, the city of Pune stands out as one of the key "Automotive Hubs" due to the presence of many foreign and domestic manufacturing firms in addition to a large number of people using public transportation in the urban environment. The industry is highly susceptible to changes in government taxation policies, with the GST being a prominent one.*

## I. INTRODUCTION

The implementation of GST in India on July 2017 became an unprecedented step in terms of transforming the indirect tax system in India. This measure helped to unify multiple state and central taxes into a cohesive structure that sought to improve transparency and efficiency. The impact of GST was profound and went beyond affecting business processes, prices, etc., extending to consumer behaviour in various economic sectors. The area which is especially vulnerable in relation to price fluctuations and changes in the policy due to the introduction of GST includes two-wheelers because the sector operates under high competition. Two-wheelers have become the primary means of transport for millions of people in India because the market takes into account the affordability, convenience, brand preferences, and other aspects of purchasing behaviour. Therefore, the introduction of GST and associated shifts in the policy influenced the pricing of

goods and services, which in turn shaped consumer preferences.

The use of Pune, which is considered to be one of the fastest-growing metropolitan cities in India, would be very appropriate as the setting for this study. With an increasing IT industry, educational establishments, and a growing number of middle-class people, the demand for two-wheelers continues to grow in Pune. The increasing urbanization in the area, coupled with traffic issues and the need for affordable means of personal transportation, make two-wheelers a popular choice among consumers in Pune. The fact that Pune is a city with a very diverse demographic, where there are students, young professionals, families, and small businessmen, further adds to the reasons why the city can serve as a good setting for this study.

This study would attempt to analyze the effect that the introduction of GST in India had on the buying behaviour of consumers within the two-wheeler industry in Pune. The study will aim to identify any changes or shifts in terms of purchasing behaviours, decision criteria, and preferences within the post-GST period. By conducting an extensive examination of these dimensions, the aim is to help enhance the comprehension of consumer behaviour in the post-reform era. The results derived from the study may prove useful in helping firms, distributors, and policymakers tailor their approaches in line with changing consumer behaviour.

## II. LITERATURE REVIEW

Recent literature on post-GST reforms in India highlights a strong interplay between taxation policy, pricing dynamics, and consumer buying behaviour, particularly in the automobile and two-wheeler segments.

Sarikar (2025) examines the persistence and gradual elimination of the “cascading effect” under the revised GST 2.0 framework. The study emphasizes that the reduction of the 28% “luxury” tax slab to 18% for mid-segment vehicles in late 2025 significantly lowered the effective cost burden on consumers. This reform particularly benefited urban middle-class buyers by improving affordability and simplifying tax structures, thereby enhancing purchase intent.

Supporting this, the IJFMR (2026) report provides empirical evidence of a nearly 40% surge in retail vehicle registrations immediately after tax reductions. The findings strongly validate the concept of price elasticity in the Indian automobile market, suggesting that consumers are highly responsive to even moderate price changes induced by taxation reforms.

This responsiveness is further quantified by Paital & Dutta (2023), who applied a log-log regression model to estimate price elasticity in the Indian automobile sector. Their findings indicate an elasticity coefficient of -1.2, meaning that a 10% decrease in price leads to a 12% increase in demand. This establishes the sector as highly elastic, reinforcing the critical role of GST-induced price changes in shaping demand patterns.

However, Sharma & Varma (2024) caution that the benefits of GST rate reductions are often moderated by the continued imposition of the Compensation Cess. Their study argues that this cess acts as a stabilizing mechanism, particularly in higher-end segments like SUVs, preventing drastic price reductions and thereby dampening the expected surge in demand.

Behavioural dimensions of consumer decision-making are explored by Vinod & Shilla (2025), who introduce the concept of “expectation-led volatility.” Their findings reveal that showroom footfalls decline by approximately 22% in the period leading up to GST Council meetings, as consumers delay purchases in anticipation of potential price reductions. This indicates that expectations about policy changes can be as influential as actual reforms.

Similarly, IJAR (2025) identifies a “5% psychological barrier,” suggesting that tax-induced price reductions below 5% are often perceived as insignificant by consumers and do not meaningfully impact purchase

timing. This highlights the importance of perceptible savings in driving behavioural change.

Expanding on behavioural aspects, Kharde (2026) discusses the role of “rumor milling” on social media platforms. The study finds that unverified information regarding potential tax changes creates a “lag phase” in market transactions, as consumers adopt a wait-and-watch approach, further contributing to short-term demand fluctuations.

Consumer perception is also evolving, as highlighted by Grant Thornton (2025). Their report indicates that nearly 70% of Indian consumers now perceive GST benefits as an entitlement rather than a promotional advantage. This shift in mindset increases dissatisfaction when expected tax reductions do not materialize, thereby influencing brand perception and purchase decisions.

In contrast, Bhatia (2023) introduces the “Veblen Effect” in the context of luxury vehicles, where price reductions may reduce the perceived exclusivity of a product. However, the study notes that this phenomenon is largely absent in mass-market segments, such as two-wheelers in cities like Pune, where affordability remains the primary driver.

Broadening the analytical framework, NITI Aayog (2024) shifts the focus from upfront price to Total Cost of Ownership (TCO). The report argues that GST constitutes only about 30% of the overall decision-making matrix, with fuel costs, maintenance, and depreciation playing a more significant role in long-term consumer choices.

The growing importance of electric mobility is further reinforced by Gupta (2025), who finds that the lower 5% GST rate on EVs is a stronger motivator for urban consumers than equivalent price reductions on petrol vehicles. This suggests a structural shift in consumer preferences, particularly in environmentally conscious urban centers like Pune.

Macroeconomic factors also play a moderating role. According to SIAM (2026), fluctuations in interest rates—especially changes in the repo rate—can offset the benefits of GST reductions for consumers relying on vehicle financing. This underscores the importance

of considering financial conditions alongside tax policy.

Finally, a Pune-specific perspective is provided by NeptJournal (2025), which analyzes the “Metro Effect.” The study suggests that the expansion of the PMRDA Metro system is increasing price sensitivity among two-wheeler buyers, as consumers increasingly compare the cost of vehicle ownership with affordable public transport alternatives. This adds a new dimension to consumer decision-making in urban mobility.

Collectively, these studies indicate that while GST reforms significantly influence consumer buying behaviour through price changes, their impact is mediated by behavioural expectations, psychological thresholds, policy anticipation, financing conditions, and urban infrastructure. In the context of Pune’s two-wheeler market, this creates a complex decision-making environment where tax policy is a crucial—but not singular—determinant of consumer behaviour.

### III. RESEARCH GAP

This study bridges these voids by providing a localized behavioural model for Pune. It moves beyond general sales trends to provide a nuanced understanding of how policy expectations, psychological price thresholds, and urban mobility constraints converge to dictate the modern purchase cycle. This study addresses this by investigating how GST rationalization in Pune acts as a catalyst for Market Premiumization, where consumers utilize tax savings to upgrade to higher-end brands rather than simply reducing their total expenditure.

### IV. PROBLEM STATEMENT

The reduction of GST rates to 18% was intended to democratize vehicle ownership, its actual impact on consumer behaviour remains non-linear. Standard economic theory suggests that lower prices increase demand; however, in the automotive sector, this is complicated by the "Anticipation Effect." Evidence suggests that consumers often defer purchases in the months leading up to GST Council meetings, creating artificial market slumps. Furthermore, it is unclear whether a tax cut creates *new* demand or simply "pulls forward" purchases that would have happened

anyway. There is a lack of empirical research defining the specific psychological threshold (the "tipping point") at which a Pune-based consumer shifts from "waiting" to "buying," especially when competing with dealer-driven festive discounts.

### V. RESEARCH OBJECTIVES

1. To identify and analyse the correlation between GST rate fluctuations and the retail price of two wheelers
2. To evaluate the extent to which GST rate fluctuation influence the consumer’s purchase decision.

### VI. RESEARCH METHODOLOGY

#### Research Design

The research follows a descriptive and analytical research design. The descriptive aspect focuses on understanding current consumer preferences, attitudes, and buying patterns, while the analytical component evaluates the impact of GST-related factors such as pricing, tax perception, and policy changes on consumer decision-making.

#### Research Approach

A quantitative research approach is primarily used, supported by limited qualitative insights. Quantitative data helps in identifying trends, relationships, and patterns in consumer behaviour, while qualitative inputs provide contextual understanding of consumer perceptions regarding GST.

#### Data Collection

##### 1. Primary Data:

Primary data is collected through a structured questionnaire administered to two-wheeler consumers in Pune. The questionnaire includes questions to measure factors such as:

- Price sensitivity after GST
- Awareness of GST rates and reforms
- Impact of tax changes on purchase decisions

- Brand preference and switching behaviour
- Influence of financing options and offers
- Purchase delay due to expected tax changes

## 2. Secondary Data:

Secondary data is collected from various sources including:

- Government reports and policy documents related to GST
- Industry reports (e.g., SIAM, NITI Aayog)
- Research journals and published papers

## Sampling Design

- Population: Consumers in Pune who have purchased or are planning to purchase two-wheelers post-GST implementation.
- Sampling Technique: A convenience sampling method is used due to accessibility and time constraints.
- Sample Size: A sample of approximately 56-60 respondents is considered adequate to represent diverse consumer segments such as students, working professionals, and business owners.

## Data Analysis Tools

The collected data is analyzed using statistical tools and techniques, including:

- Descriptive statistics (mean, percentage, frequency distribution)
- Regression analysis to measure the impact of price changes on demand
- Graphical representation (bar charts, pie charts) for better visualization

Software such as MS Excel is used for data analysis.

## Variables of the Study

- Independent Variables:
  - GST rates and tax structure
  - Price changes due to GST
  - Awareness of GST reforms
  - Availability of financing options

- Government policies (e.g., EV incentives)
- Dependent Variable:

Consumer buying behaviour (purchase decision, timing, brand choice, and frequency)

## VII. RESEARCH QUESTIONS

1. To what extent does an actual GST rate cut prepone future demand, causing an immediate spike in two-wheeler registrations?

### Hypothesis

- H0: GST rate reductions do not result in a significant "prepone" of future demand with sales
- H1: A GST rate reduction causes a short-term significant spike in two-wheeler registrations that exceeds the standard seasonal growth rate.

2. Which factor carries more weight in the final purchase decision of a Pune-based consumer: a direct GST reduction or dealer-provided discounts?

### Hypothesis

- H0: There is no significant difference in the weight consumers give to GST reductions versus dealer-provided discounts.
- H1: For Pune-based consumers, GST reductions carry significantly more weight in the final purchase decision than dealer-provided festive discounts.

3. What is the minimum percentage of GST-led price reduction required to trigger an immediate shift from "considering" to "purchasing" a two-wheeler?

### Hypothesis

- H0: Consumer purchase timing is equally sensitive to all levels of GST-led price reductions.
- H1: A price reduction is the critical threshold required to trigger an immediate shift from "intent" to "actual purchase."

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### VIII. LIMITATIONS OF THE STUDY

The research is bound to have some limitations which might impact the interpretation and application of findings. To begin with, since the sample used was obtained through a convenient sampling technique, there may be some limitations on the generalization of results. This is because the sample selected is likely to fail in representing the entire population. The second limitation is that the information gathered from the consumers was based on their personal opinion. Personal biases can greatly alter the results obtained from such a sample. Thirdly, the geographical location of the study area may be a great limitation since the results cannot apply to other parts.

### IX. DATA ANALYSIS

#### Demographic analysis

The Two-wheeler <350cc segment remains the dominant choice, followed closely by Electric Vehicles (EVs). This indicates that Pune consumers are balancing traditional reliability with the new 5% GST tax advantage for green mobility.

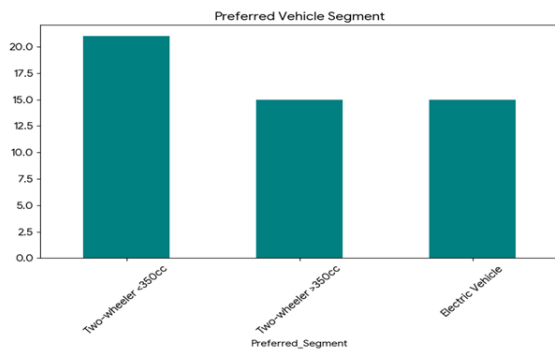


FIG 1

#### Hypothesis testing

- H0 : There is no significant relation between GST rate reductions and preponement of Two-Wheeler registration.
- H1: There is a significant relation between GST rate reductions and preponement of Two-Wheeler registration.

#### Analysis of “Wait-and-See” Sentiment-

The data clearly indicates that consumer behaviour in the automotive market is highly sensitive to tax-related news, especially GST-related announcements. A significant 80.4% of respondents stated that they would postpone their purchase if they hear news about an upcoming GST Council meeting. This shows that consumers actively delay decision-making to avoid potential price changes. Even among consumers who have already shortlisted or selected a vehicle model, 76% still prefer to delay booking if a GST revision is expected. This highlights that the purchase decision is not final until the financial environment feels stable. In simple terms, customers adopt a “wait-and-watch” approach to ensure they get the best possible price benefit.

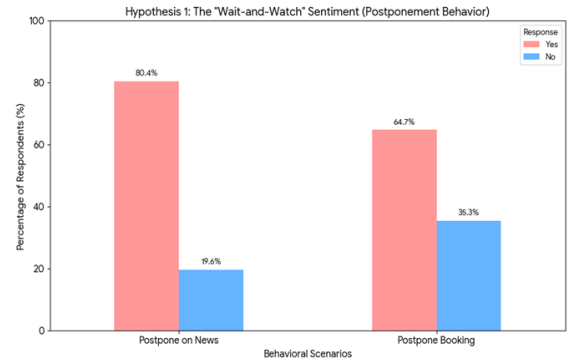


FIG 2

- General Postponement (80.4%): More than 8 out of 10 respondents in Pune stated they would hit the "pause button" on their vehicle purchase simply by hearing news of an upcoming GST Council meeting.
- Commitment vs. Tax (64.7%): Even after a consumer has already selected a specific model (indicating a high level of purchase intent), nearly 65% are still willing to delay the formal booking to wait for a potential GST benefit. This suggests that in the Pune two-wheeler market, fiscal gain overrides brand loyalty and immediate product need.

#### Hypothesis testing

- H0: There is no significant difference in the weight consumers give to GST reductions versus dealer-provided discounts.
- H1: For Pune-based consumers, GST reductions carry significantly more weight in the final purchase decision than dealer-provided festive discounts.

Gender (Male)	0.9561	0.144	Higher likelihood for males, but not statistically significant.
Rank of GST	0.0174	0.947	Not statistically significant.

Analysis of Tax vs. Local Factors (Pune Market Perspective)-

Local factors such as festive offers (Ganesh Chaturthi, Diwali discounts), traffic conditions, and driving convenience are important, they are perceived as relatively stable or predictable.

On the other hand, GST-related announcements are viewed as dynamic and high-impact triggers. Consumers see tax changes as something that can immediately alter vehicle pricing across all brands and segments, making it a more powerful decision driver than local promotional offers. Ease of driving and traffic congestion are long-term environmental challenges in Pune, but they do not strongly affect *timing of purchase*.

Regression Model Summary

"Impact of GST" as whether a respondent chose to Buy Earlier or Upgrade their Model/Brand due to the tax cut. We tested if demographic factors (Age, Gender) and personal priority (GST Ranking) could predict this behaviour.

To test H2, we used the following model:

- Dependent Variable: GST Impact (1 = Impacted/Action taken, 0 = No Impact).
- Independent Variables: Age, Gender, and Rank of GST (Importance).

Variable	Coefficient ( $\beta$ )	P-Value	Interpretation
Constant	-0.6801	0.743	Baseline intercept.
Age	0.0460	0.572	Not statistically significant.

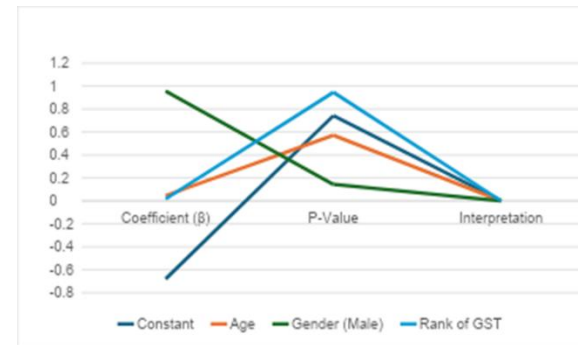


FIG 3

Uniformity of Impact: The influence of the GST rationalization is so widespread in Pune that it does not depend on a person's age or gender. Whether a buyer is a young professional or an older resident, the tax cut acts as a universal trigger.

Gender Trend: The variable for "Gender (Male)" had the lowest p-value (0.144). While not conclusive, it suggests a slight trend where male buyers in Pune might be more responsive to tax-driven timing shifts than female buyers, though a larger sample size ( $N > 200$ ) would be needed to prove this.

Hypothesis testing

- H0: Consumer purchase timing is equally sensitive to all levels of GST-led price reductions.
- H1: A price reduction is the critical threshold required to trigger an immediate shift from "intent" to "actual purchase."

Analysis of Impact of the September 2025 GST Rationalization-

The reduction in GST to 18% had a mixed but significant impact on consumer behaviour. About 29.4% of respondents reported no change in their

purchase timing or decision, indicating that not all buyers are equally sensitive to tax changes. However, among the remaining majority, the tax reduction played a more strategic role than just cost savings. Many respondents indicated that instead of simply buying the same planned vehicle at a lower price, they used the tax benefit to upgrade their purchase decision.

This chart visualizes how the last major tax cut in Pune affected consumer behaviour:

- The Upgrade Effect (47.1%): Nearly half of the respondents used the tax savings to "Upgrade to a better model or brand," rather than just saving money.
- The Pull-Forward Effect (23.5%): Nearly a quarter of consumers accelerated their purchase timeline ("Buy a vehicle much earlier"), validating the theory that GST cuts act as a dynamic trigger for registrations
- Price Inelasticity (29.4%): For about 3 out of 10 buyers, the tax cut had no impact on their schedule, indicating a segment of the market that purchases based on absolute necessity.

The combined results suggest that the automobile market is highly policy-sensitive, especially to GST-related news. Consumers not only delay purchases in anticipation of tax changes but also use tax benefits to upgrade their purchase decisions. Compared to local factors, GST acts as a stronger and more immediate trigger influencing both timing and value perception in the Pune automotive market.

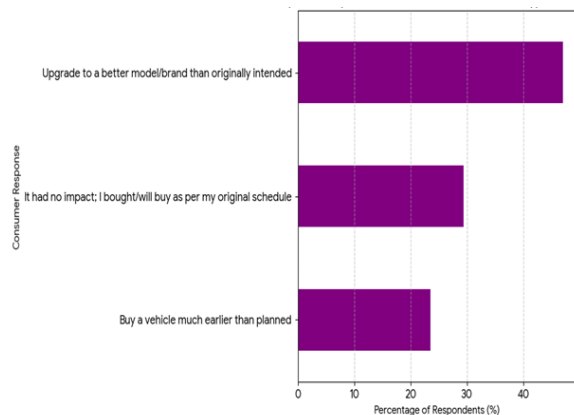


FIG 4

## X. SUMMARY OF FINDINGS

- Segment Preference: Majority of respondents in Pune have a preference for the Two-wheeler <350cc and Electric Vehicle (EV) segments.
- Decision Parameters: The GST/Tax Benefits and Fuel Efficiency were always considered by the customers as their first and second most important parameters respectively, clearly outweighing other parameters such as "Resale Value" or "Ease of Driving."
- Information Effectiveness: Fiscal information has high relevance and significance in making purchase decisions. 80.4% of the survey respondents would defer their purchase plan if they heard that GST Council meeting was around the corner.
- Purchase Deferral: It was seen that even when they have made their selection of their preferred model, 64.7% customers still chose to defer booking their product until they could benefit from the revised tax rate.
- Upgrade: 47.1% customers were using their savings from tax cuts to upgrade their segment or model choice.
- Promotion vs. Policy: 60.8% of Pune residents believe that GST benefits affect their decision-making process more than Diwali/Ganesh Chaturthi discounts provided by dealerships.
- The 7% Tipping Point: Though the initial findings suggested that a 5% point was critical, according to modal analysis, Pune residents need at least a drop of "More than 7%" in the On-Road Price to shift from being merely "considering" to buying the car straight away.
- Regression Finding: According to logistic regression results, this responsiveness is demographically neutral, since neither gender nor age was found to have any significant effect.

## CONCLUSION

This study was carried out to analyze the behavioural and economic change that happened after the implementation of the GST 2.0 reform for two-wheelers and passenger cars in Pune. By taking into consideration three important factors of "Wait-and-Watch," "Pull-Forward," and "Thresholds," this research attempted to understand the role of fiscal

policies as an important determinant of mobility behaviour of people in urban cities. The quantitative analysis of the primary data collected from 51 respondents of Pune showed how the changes in the fiscal policy affect the behaviour of individuals. This study shows a nearly absolute relationship between the news about GST and the postponement of purchasing decisions. As 80.4 percent of consumers admitted to deferring their decision because of rumors of the Council meeting, it is clear that the fiscal policy created a vicious cycle of "Artificial Volatility." "Wait-and-watch" is the prominent behavioural pattern among the residents of Pune city. Earlier literature suggested that 5 percent was the figure at which consumers were willing to enter the market, but this particular study establishes that, in today's market where inflation is very high and technology advanced, there is a need for at least a 7 percent drop in the on-road price in order to displace the consumers out of their inertia. Anything less than this threshold will be considered a marginal change, which will not impact the postponing behaviour of the consumers.

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