

# CAR24

*The World of Pre-Owned Cars*



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# Contents



- Introduction
- DataSet Overview
- Methodology
- Data Study On Different Perspectives
  - Transmission V/S Average Selling price
  - Analysis Of Car Distribution By Car Age Category
  - Compare of Average Selling Price Across Seller Type
  - Cars Distribution Based On Manufacturers
  - Analyzing Relationship Between Fuel type And Average Selling Price
  - Impact of Ownership On Car Fuel Efficiency
  - Comparing Car Year Manufacturing With Average Selling Price
  - Vehicle Type Distribution Of Car
  - Correlation Between Distance Traveled And Fuel Efficiency Of Car
  - Influence Of Engine Displacement On Both Resale Value Of Car and Their Fuel Efficiency
- Conclusion
- Challenges
- Future Work

# Introduction



We aim to conduct a comprehensive analysis of a dataset containing information about cars. The dataset includes various attributes such as car model, selling price, fuel type, mileage, engine capacity, manufacturing year, seller type, and more. Understanding the dynamics of the pre-owned car market is vital for both buyers and sellers. By analyzing factors such as kilometers driven, fuel type, seller type, transmission, and previous ownership.

we seek to answer crucial questions like what factors influence the selling price of a used car? Are there any trends regarding mileage and fuel efficiency across different car models and years? How does the type of seller or transmission impact the market dynamics?

Through this analysis, we intend to extract valuable insights that can inform decision-making processes for both customers and sellers in the automotive market.

# DataSet Overview



## The dataset contains the following columns:

1. **Name:** The name or model of the car.
2. **year:** The manufacturing year of the car.
3. **Selling price:** The price at which the car was sold.
4. **Km driven:** The number of kilometers driven by the car.
5. **Fuel:** The type of fuel the car uses.
6. **Seller type:** The type of seller (individual, dealer, or Trustmark dealer).
7. **Transmission:** The type of transmission (manual or automatic).
8. **Owner:** The number of previous owners of the car.
9. **Mileage:** The mileage of the car in kilometers per liter.
10. **Engine [CC]:** The engine displacement in cubic centimeters (CC).
11. **Max power:** The maximum power output of the car's engine.
12. **Seats:** The number of seats in the car.

# Methodology



- 1.Counting:** This method is used to count the number of rows that meet certain criteria in a database table..
- 2.Adding :** Summing is about adding up numerical values within a dataset. For instance,
- 3.Grouping or Categorizing :** Grouping involves organizing data based on common attributes. It's like categorizing information.
- 4.Filter Dataset:** Filtering allows you to narrow down your dataset to only include rows that meet certain conditions.
- 5.Organize:** Organizing data involves arranging it in a structured manner to make it easier to analyze and understand.

# Data Study On Different Perspectives

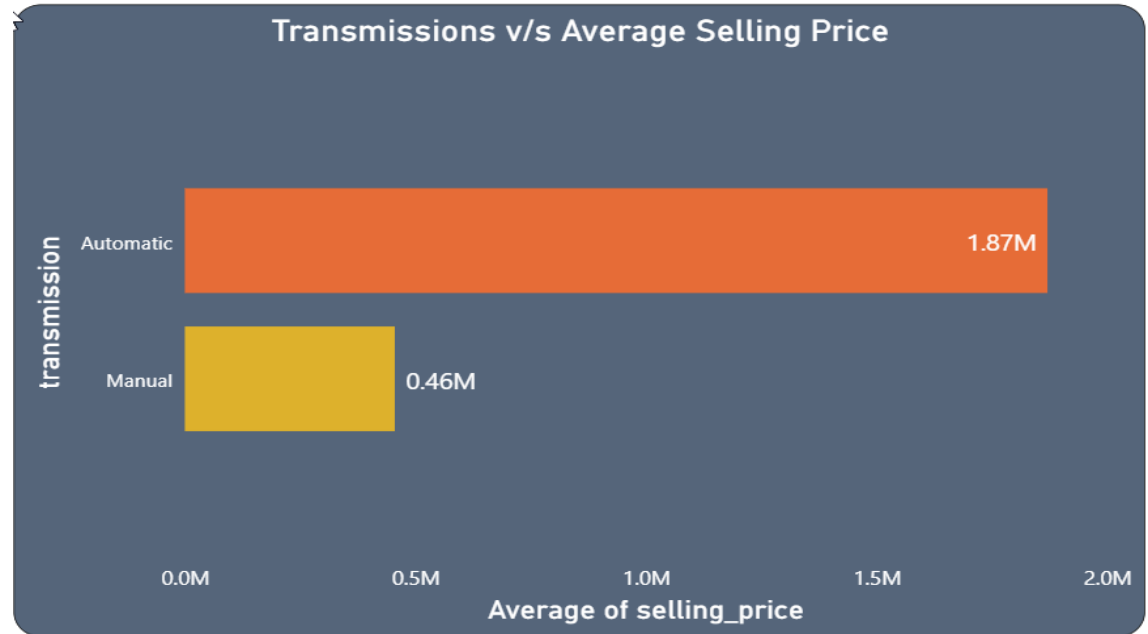
## 1. Transmission V/S Average Selling price

! Is automatic cars have higher market value?

! How many cars we have automatic and manual?

+ As we can see number of automatic cars less then manual cars

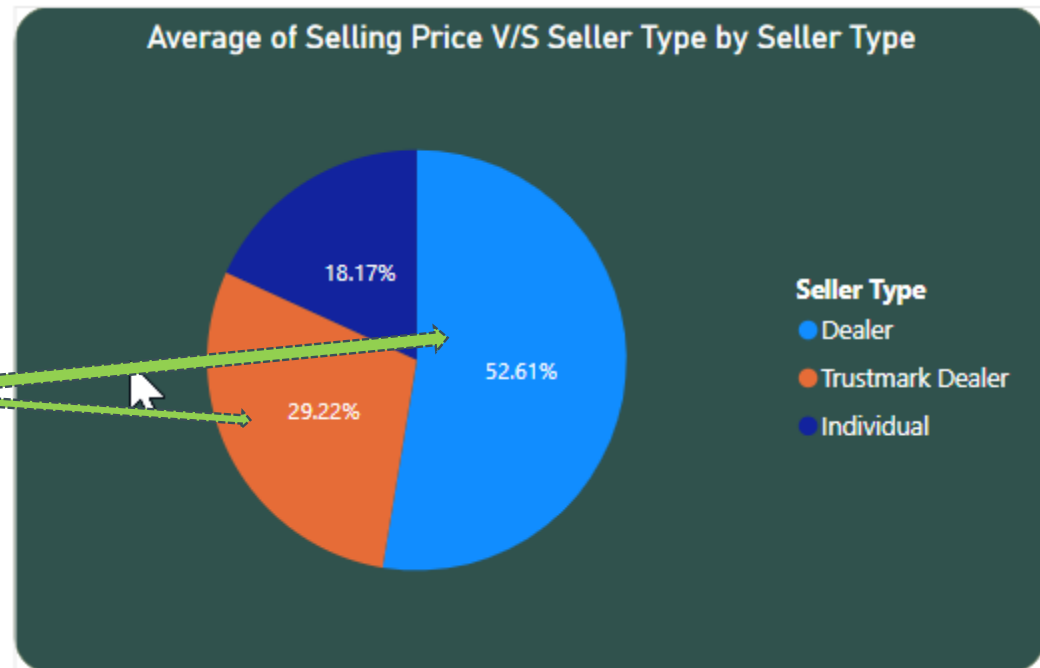
+ If we check market trends customer prefers automatic more then manual cars



Transmission	Average selling price	Total Count
Automatic	1.87M	1050
manual	0.46M	7078

## 2. Compare of Average Selling Price Across Seller Type

- selling price percentage of Dealer and Trustmark dealer is high and percentage count of cars is less
- Count of cars by individual seller is high and less selling price
- It concludes Trustmark dealer and dealers selling cars on higher price



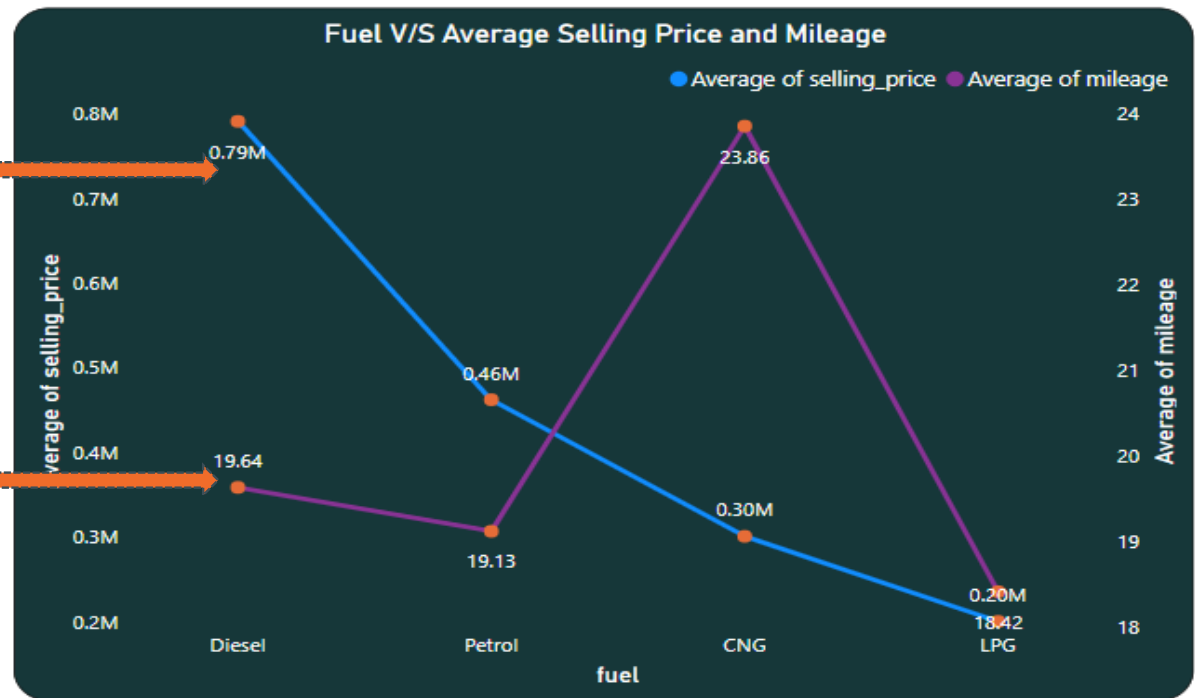
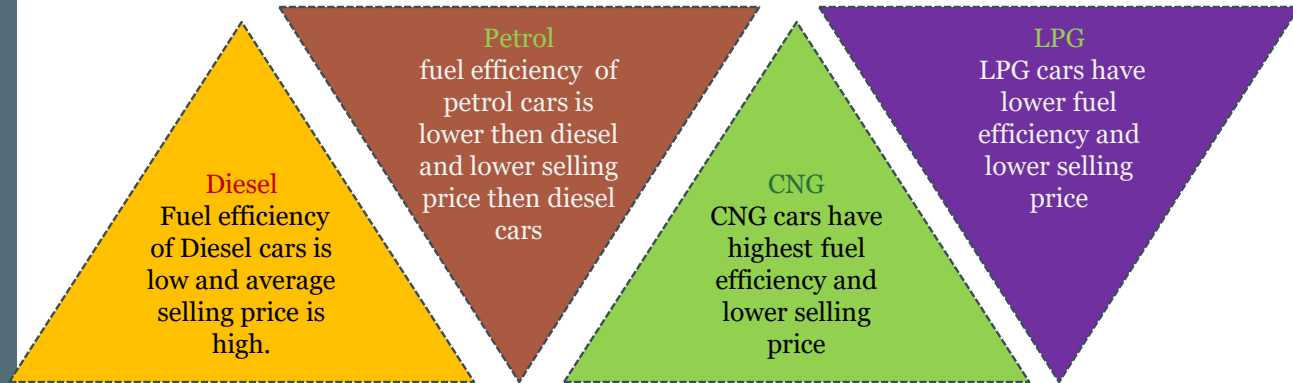
Seller Type	Percentage Count of Cars	Percentage of avg selling price
Individual	83.2%	18.1%
Dealer	13.8%	52.6%
Trustmark Dealer	2.9%	29.2%

### 3. Analyzing Relationship Between Fuel type And Average Selling Price

! Which fuel type cars have higher mileage and good selling price ?

Selling price

Mileage

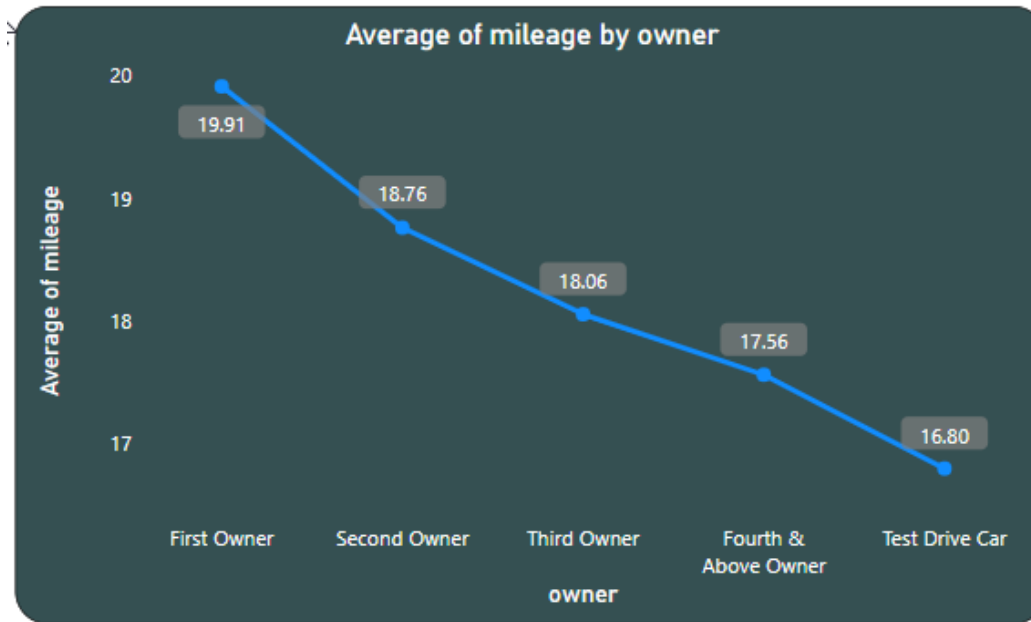






## 4. Impact of Ownership On Car Fuel Efficiency

Owner	Average Mileage
Test Drive Car	16.8 Km/per L
Fourth & Above Owner	17.5 Km/per L
Third Owner	18 Km/per L
Second Owner	18.7 Km/per L
First Owner	19.9 Km/per L



Test drive  
↓  
Low  
Mileage

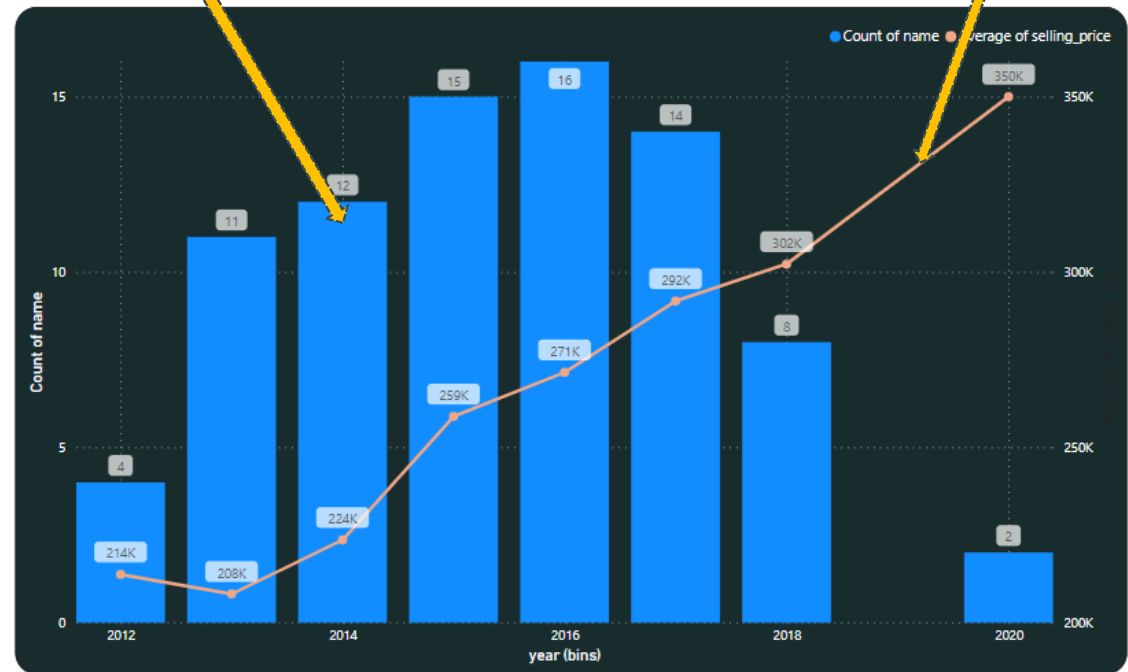
First Owner  
↑  
High  
Mileage

## 5. Comparing Car Year Manufacturing With Average Selling Price

- A positive correlation found in Between year and selling price
- selling price increasing for latest models of cars

Year of manufacturing and count

Selling price

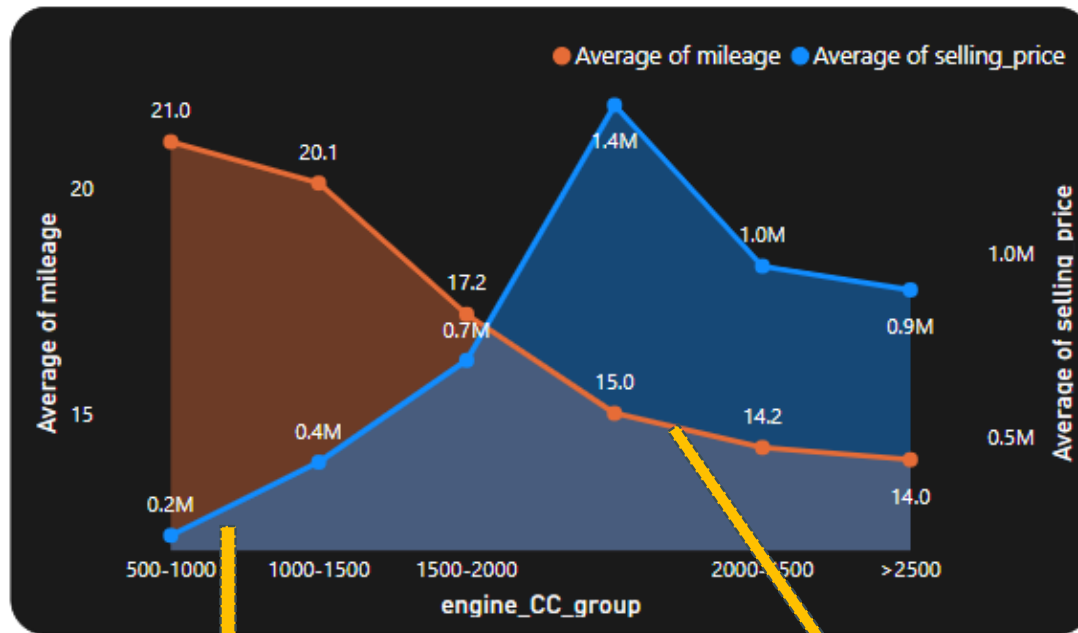


Selling price increases



Engine CC increases

Mileage  
decrease



Selling price

Mileage

## 10. Influence Of Engine Displacement On Both Resale Value Of Car and Their Fuel Efficiency

- There is inverse correlation between Engine displacement and Mileage.
- Increase in Engine CC selling price also increases

# Conclusion



- **automatic cars** hold **greater market value** compared to manual ones, as reflected by current trends showing a high demand for automatic transmissions among customers.
- **increase** newest car models, which are more attractive to customers and **hold greater value** in the market.
- **individual sellers** tend to offer better prices compared to dealers and **trustmark dealers**.
- **CNG cars** stand out as a better option for customers due to their affordability and superior mileage.
- cars owned by their **first owner** tend to have **better mileage** compared to those owned by second or third owners.
- the price of cars rises along with the **year** they were made.
- the number of kilometers driven goes up, the mileage of cars tends to go down. when the engine size **increases**, mileage **decreases** while the selling price increases.

# Challenges



- the company may need to strategize on how to remain competitive in pricing while maintaining profitability.
- it also requires effective supplier management. Finding reliable local suppliers who can offer these cars in large quantities and at lower prices may pose a challenge.
- the company will need to carefully manage its inventory to maintain a balance between offering newer, low-mileage cars and managing costs associated with older inventory.
- Engaging with customers to understand their preferences and needs, and adapting inventory and services accordingly to enhance customer satisfaction and retention.
- Implementing measures to ensure cars owned by their first owner are prioritized in inventory selection to maintain better mileage standards.

# Future Work



- **Market Strategy Refinement:** Develop a comprehensive marketing strategy focusing on the promotion of automatic cars, highlighting their market value and addressing the high demand for automatic transmissions.
- **Product Development and Innovation:** Invest in research and development to enhance the features and attractiveness of the newest car models.
- **Supply Chain Optimization:** Strengthen partnerships with local suppliers to ensure a consistent supply of top-selling car brands at competitive prices.
- **Diversification Strategy:** Focus on offering a diverse selection of hatchback and sedan cars, organized based on their unique features, to cater to the varied preferences of customers.
- **Customer Engagement and Satisfaction:** Prioritize customer satisfaction by providing transparent pricing, personalized services, and after-sales support.
- **Environmental Sustainability Initiatives:** Explore opportunities to promote CNG cars as a viable and eco-friendly option for customers.
- **Data-driven Decision Making:** Utilize data analytics tools and techniques to analyze market trends, customer preferences, and vehicle performance metrics. This data-driven approach will enable the company to make informed decisions regarding pricing strategies, inventory management, and product development initiatives.



THANK YOU