



Analysis of the determinants of used car prices



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introduction

Unlocking the secrets of the determinants of used car pricing: Diving beyond inflation into factors like mileage, transmission type, and previous ownership

research question

What are the determinants of used car prices based on registration year, inflation, and other factors?

hypothesis

All of these 3 factors affect the price of a used car

- Mileage
- Number of Owners
- Transmission Type

dataset

This analysis uses a dataset from India featuring diverse information on used cars from India, including model names, registration years, insurance validity, fuel types, seating capacity, kilometers driven, ownership history, transmission types, manufacturing years, mileage, engine capacity, power output, torque, and prices in Indian Rupees (INR).

analysis

Mileage vs. Price:

P-value: 0.0069

Result: Reject the null hypothesis

Number of Owners vs. Price:

P-value: 0.0013

Result: Reject the null hypothesis

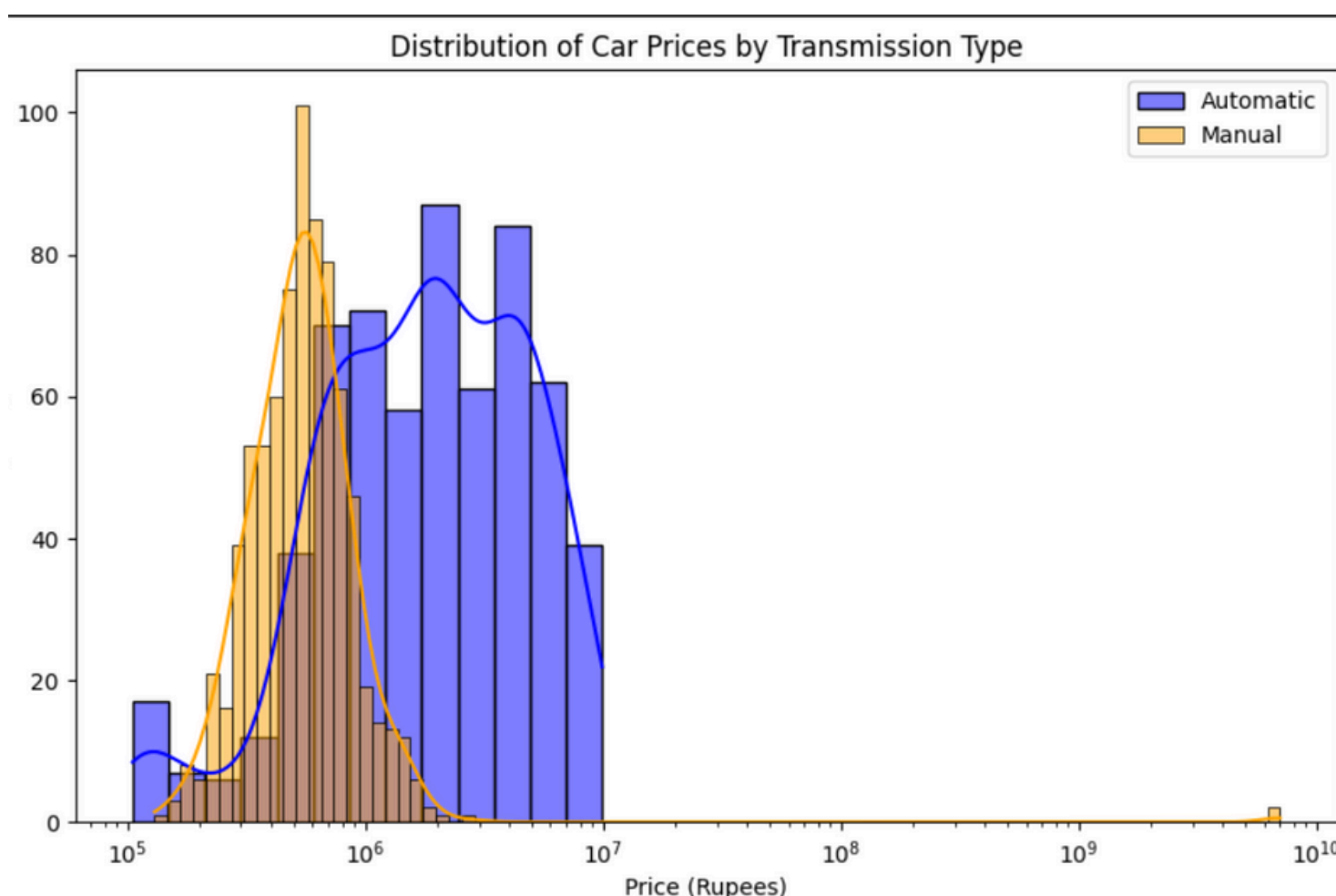
Transmission Type vs. Price:

P-value: 0.2599

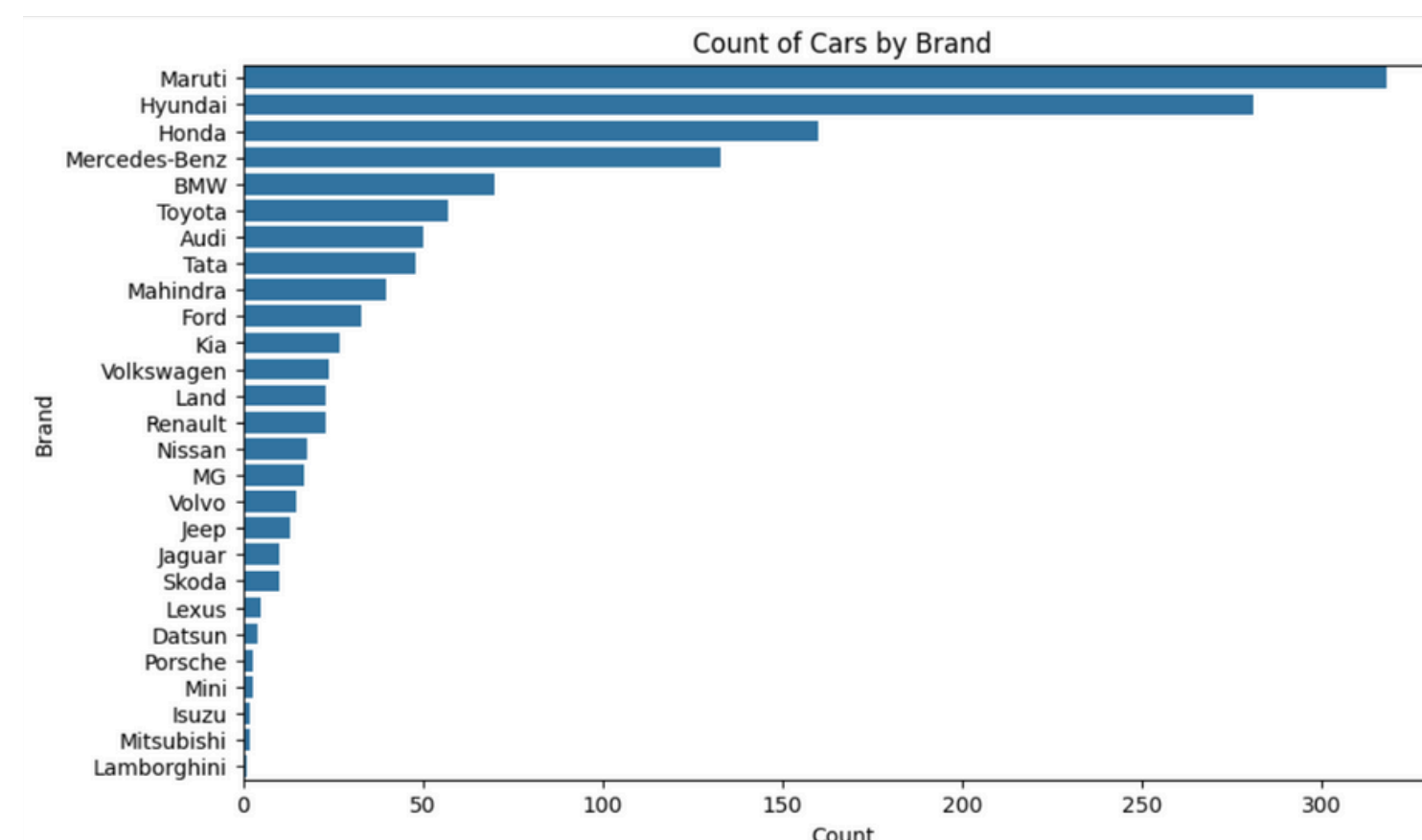
Result: Fail to reject the null hypothesis

conclusion

Our analysis of used car prices in India revealed that mileage and ownership history significantly influence prices. Specifically, higher mileage tends to lower prices, and cars with fewer owners command higher prices. However, we found no significant difference in prices between automatic and manual transmission types, indicating that transmission type may not be a crucial factor in determining used car prices.



a histogram visualizing the distribution of car prices by transmission type which suggests that the transmission type affects the car prices but it was statistically proven otherwise



a bar chart visualizing the brands in the used dataset which all add up to 1388 cars

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