



CarDekho

RIGHT CAR, RIGHT NOW

Research Project on Cardekho

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Case Study

- This Case Study consists of 1 dataset.
- This dataset contains more than 15,400 Cars mentioning the car's name, brand name, car's age, kms driven, fuel type, transmission, mileage, power, seats, selling price and seller type.

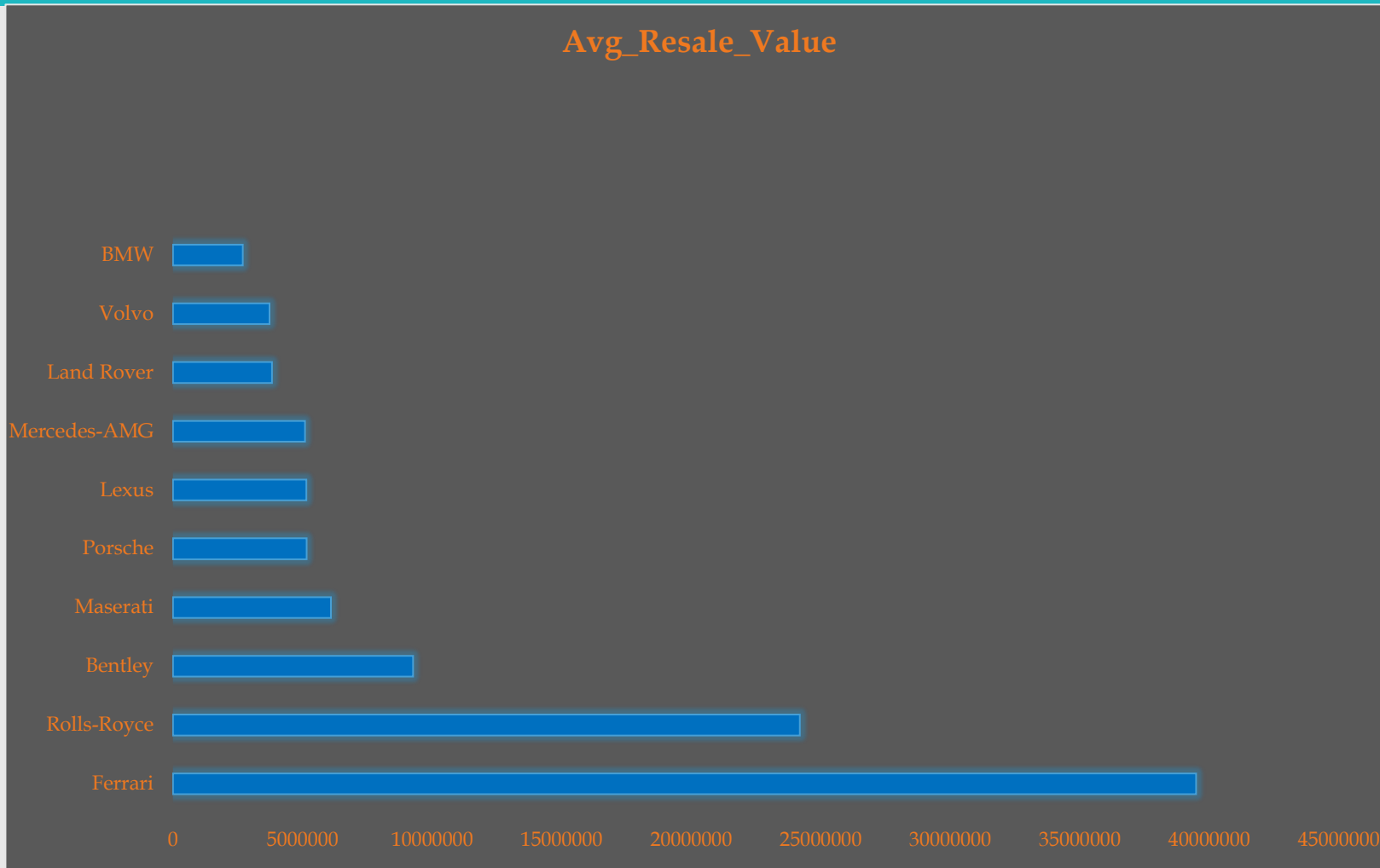
Objective

- Customer Segmentation
- Vehicle Resale Value Prediction
- Seller Type Impact
- Fuel Efficiency Insights
- Price Optimization
- Brand comparison & Analysis
- Reliability and Car longevity Prediction

Problem Statements

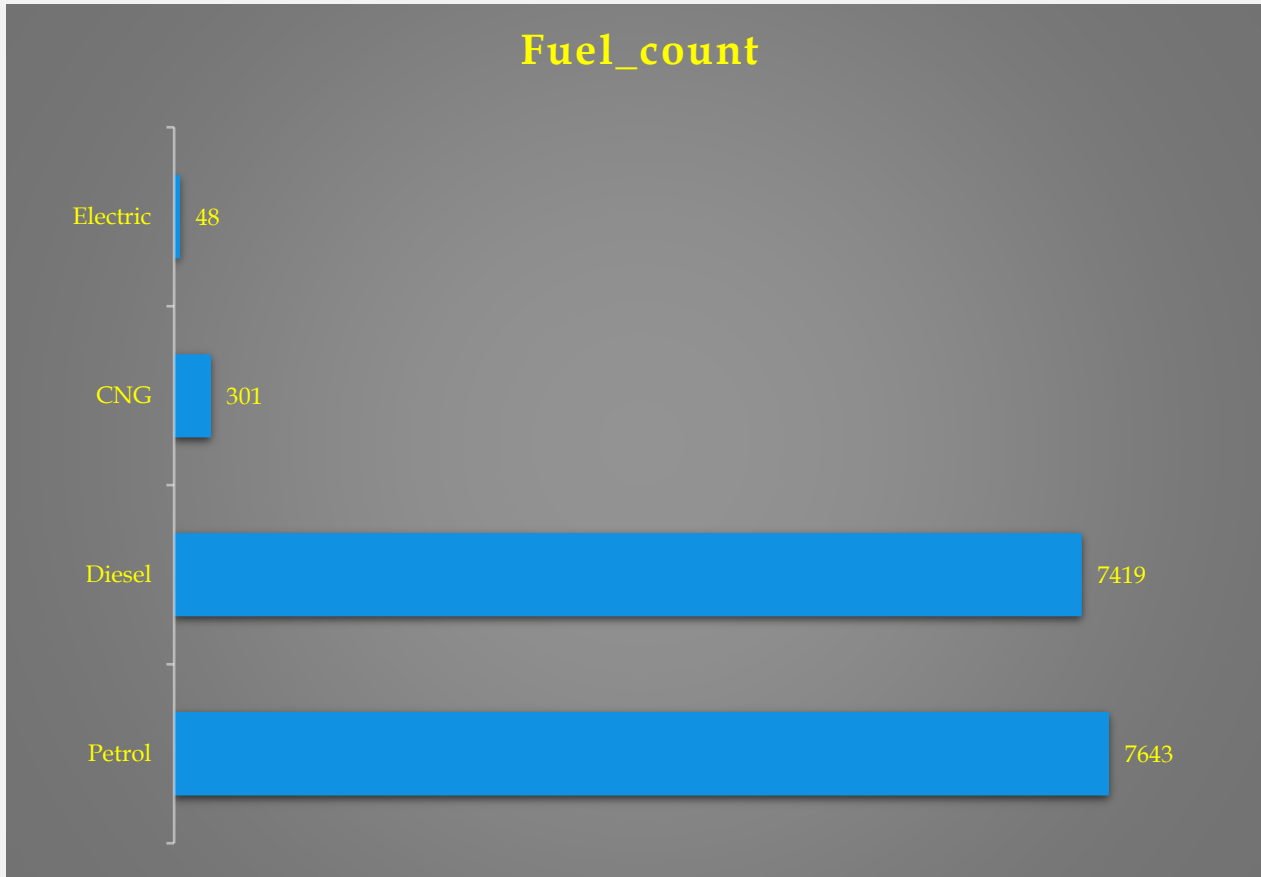
- What brands can Customers get who look for superior cars i.e luxury brand cars for their status.
- How many options do customers have in a particular fuel category. For Eg : Petrol , Diesel, Electric, CNG, LPG
- How is the selling price affected depending on the seller type i.e Individual seller or Dealer
- What type of transmission is more available in the market. For eg : Manual or Automatic
- What can customers expect the average driven kms of the cars they are looking for?
- What price range can the customers expect if the car is below 5 years or older than 5 years?
- Which models can customers look forward to if they are looking for mileage oriented cars?
- How does vehicle age impact selling price? Is the age and price directly related or inversely related to Each other?
- What are the options available for customers if they are looking for cars which have more than 5 seating capacity
- Car-Enthusiasts who look for sportiness and Maximum power out of their car with certain budget. What are the options available from them.

Luxury Brands that matter to the customers for their status



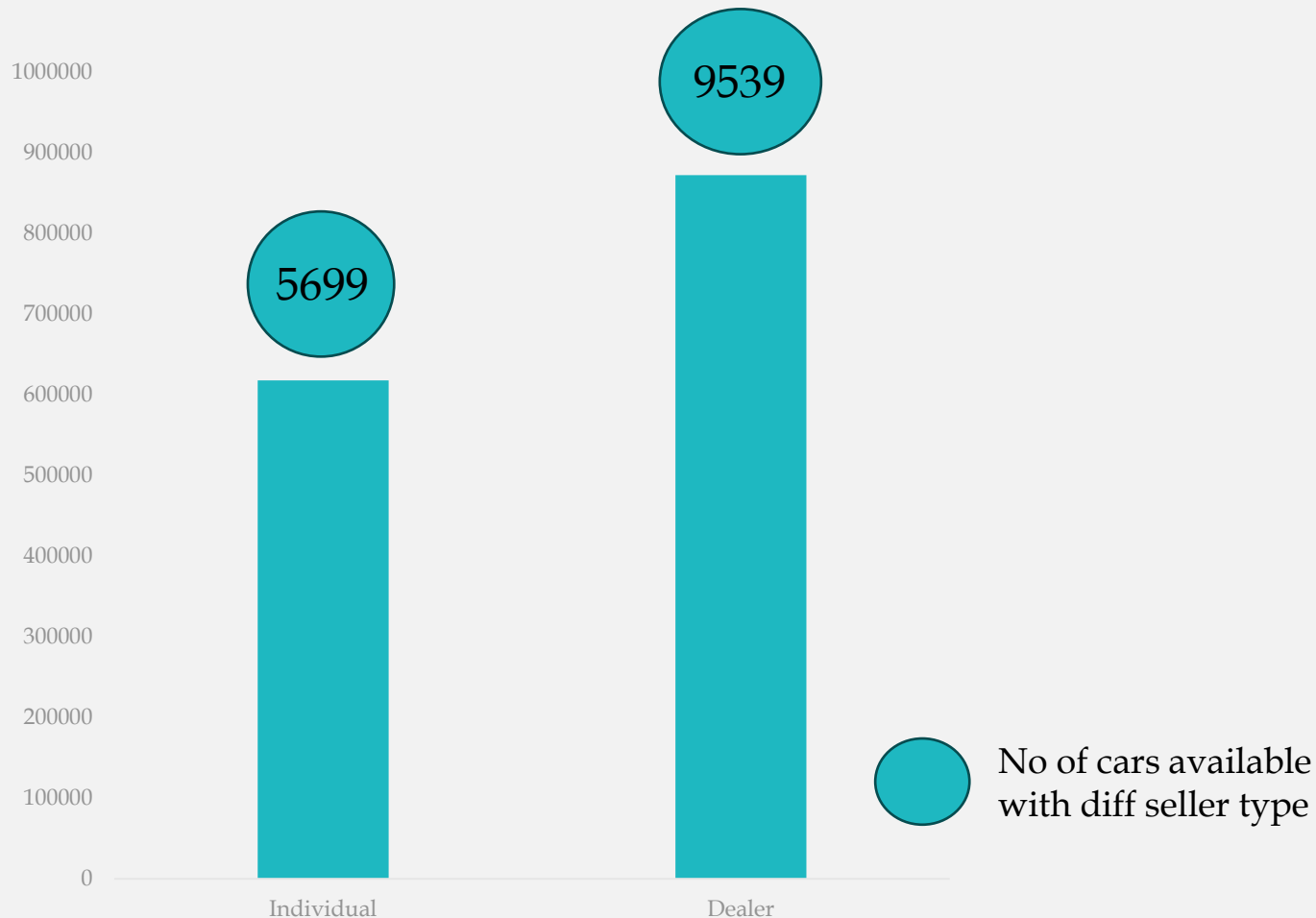
- These are the top 10 luxury brands according to their Average resale value in the second hand car market.
- The top 3 brands are Ferrari, Rolls-Royce and Bentley followed by others.

What options do customers have in fuel type



- There are equal number of Petrol and Diesel cars available.
- But very less Electric cars compared to the trend in the market for the Electric vehicles. Customers will find difficulty in finding Electric vehicles in the used car market.

Price difference between Individual seller and a dealer



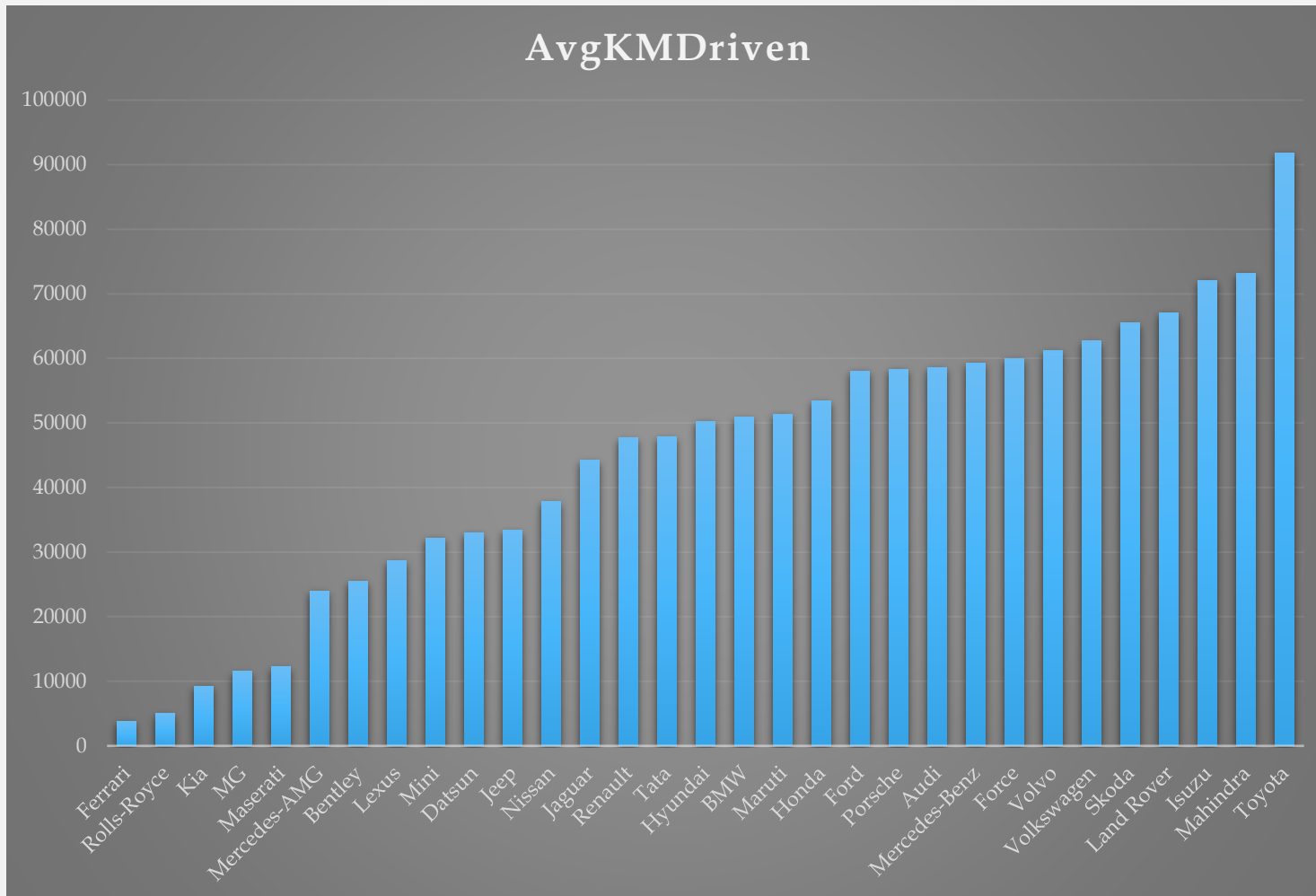
- **Significant Price Disparity between Individual sellers and Dealers**

We can see that there is almost 40% difference between the prices of an individual seller and a dealer.

- **Dealers contribute more to the market**

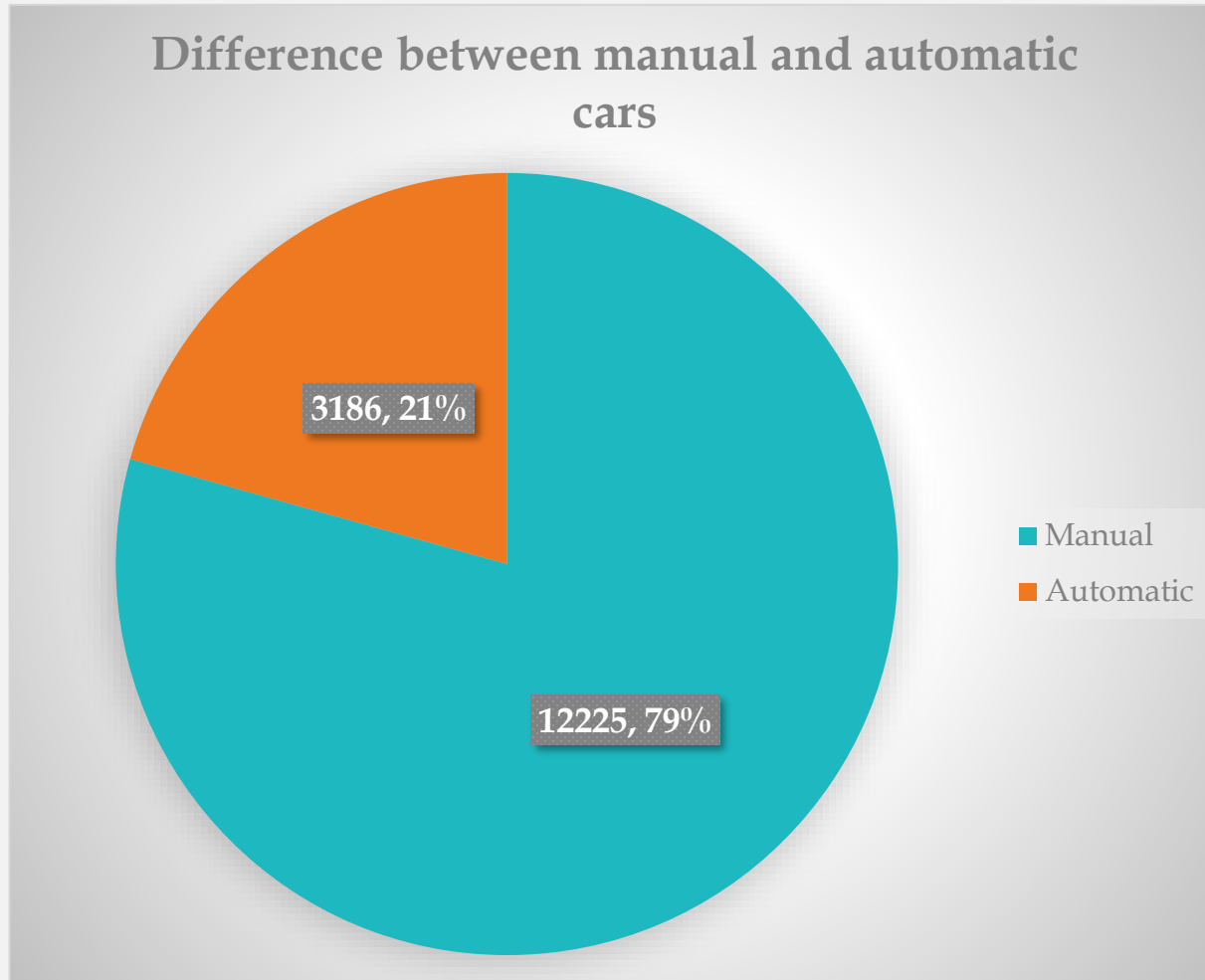
We can also make out that the dealers are selling almost 70% more cars than individual sellers.

Reliability, Durablity and Luxury brands



- Out of all the brands shown, **Toyota, Mahindra and Isuzu** stands out having the most kms driven, **exceeding 70k** and **Toyota** especially **exceeding 90k**. This may suggest that these vehicles are more durable and frequently used compared to other brands.
- Brands like **Ferrari, Rolls-Royce and Bentley** have lower avg kms driven. This indicates that these luxury brands are less driven and used possibly due to their **exclusivity, high maintenance costs**, or use as **status symbols** rather than daily drivers.

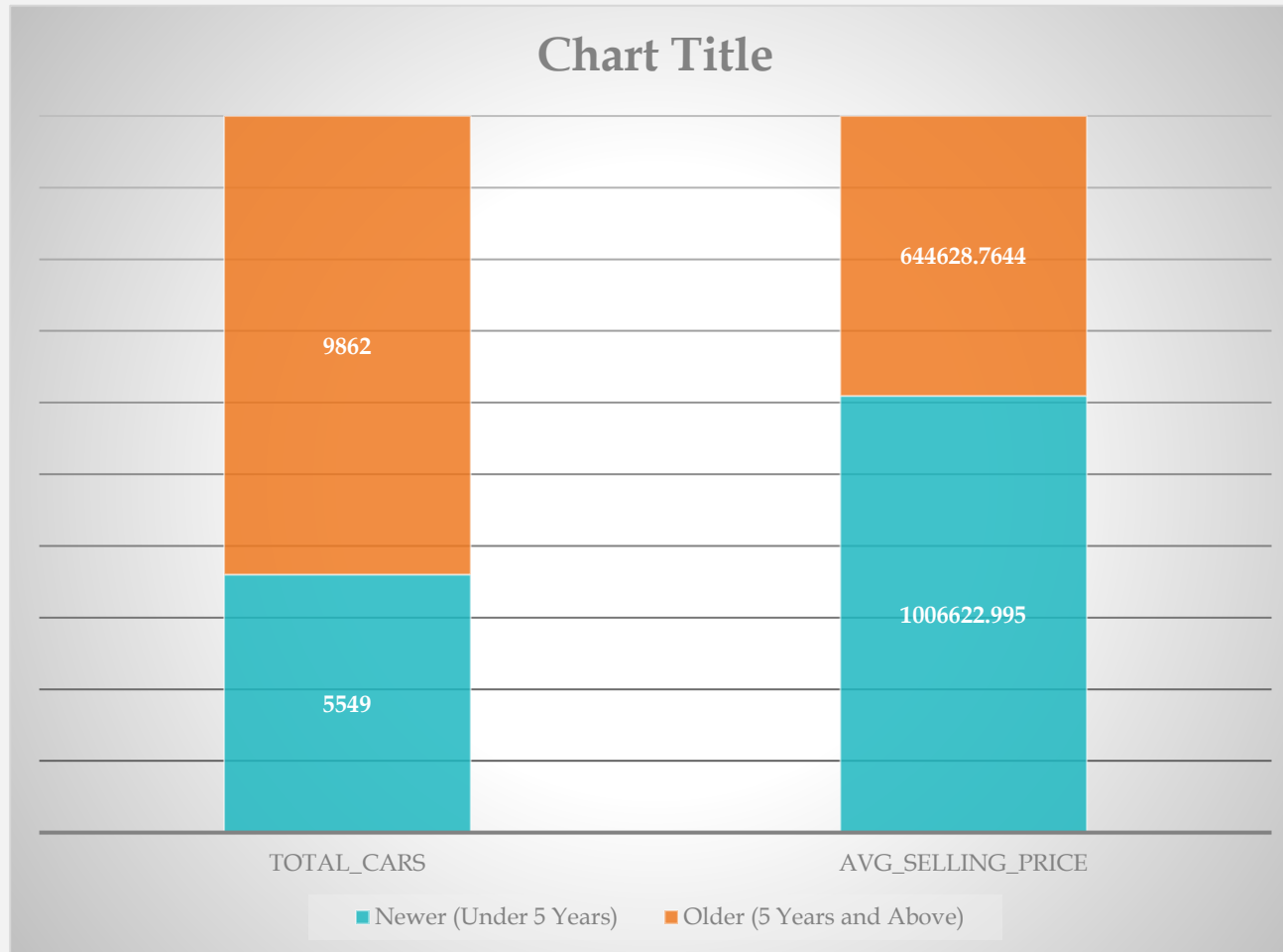
No of Cars available in the market according to transmission type



- **Manual cars dominate the market**
Manual cars make up the vast majority (79%) of the vehicles, suggesting they are more popular or widely available.

With only 21% of vehicles being automatic, this indicates that automatics might be less common, possibly due to higher maintenance costs.

Difference between older cars (5 yrs and above) and newer cars (under 5 yrs)



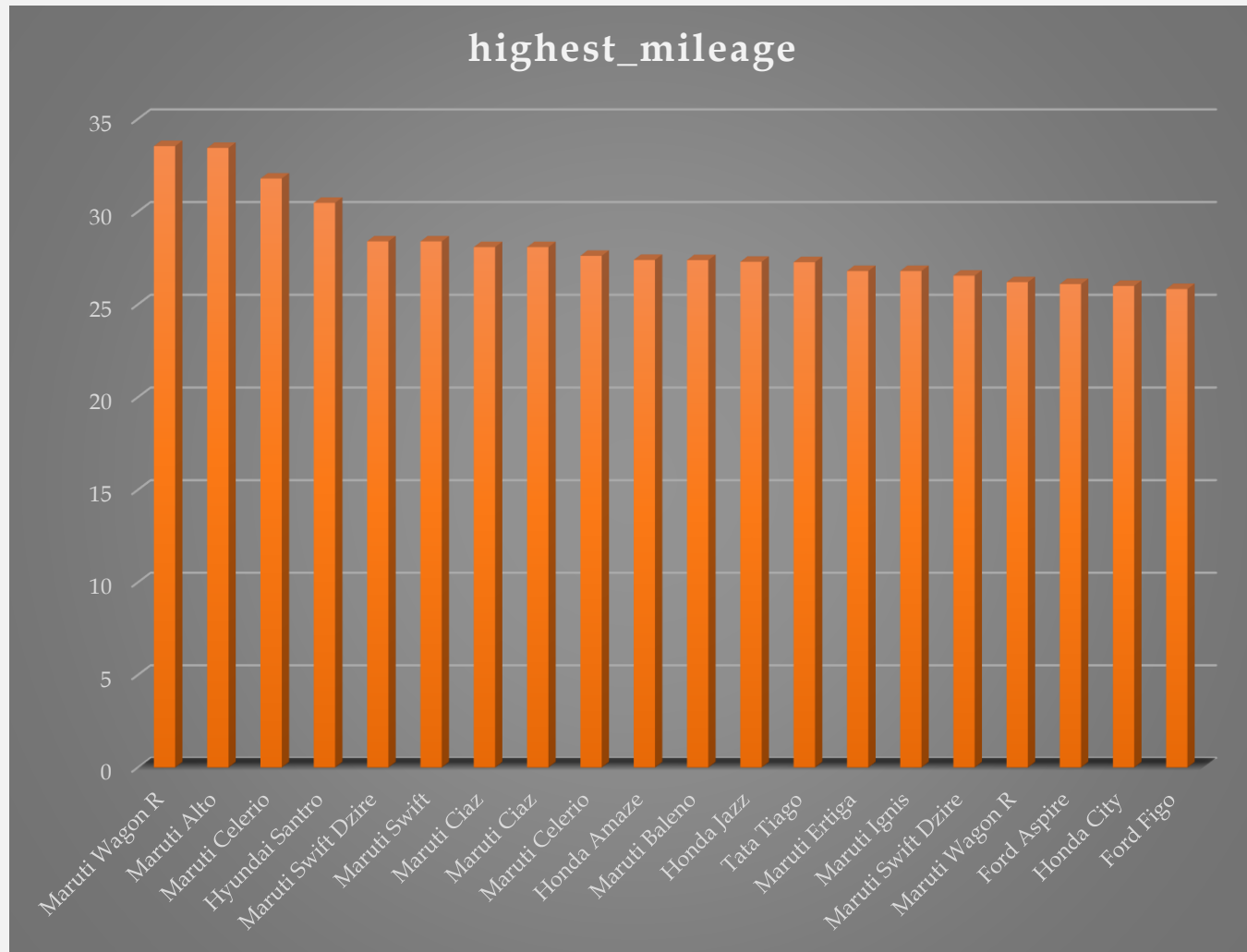
- **Sales Volume Difference**

There are more older cars(9862) than newer cars(5549) in the market indicating a large supply of older vehicles.

- **Price Trend**

Newer cars command significantly higher average selling price (~ 56% higher) compared to older cars, highlighting the depreciation in value for older vehicles over time.

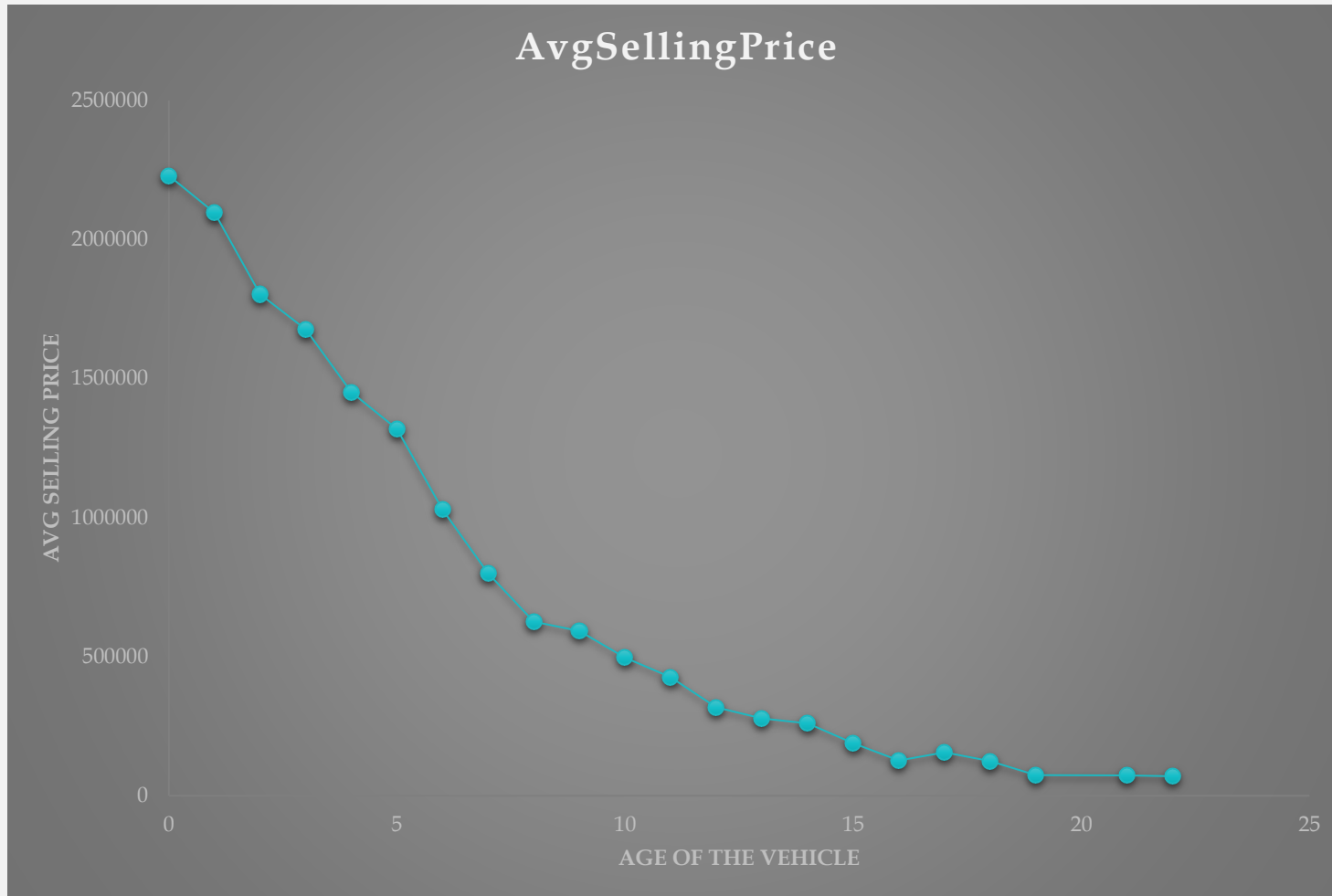
Top Fuel-Efficient cars for Customers



- **Maruti dominates the high-mileage car market**

Majority of the vehicles with the highest mileage efficient cars are from Maruti, highlighting the brand's strong market position in fuel-efficient cars. This gives Maruti a competitive advantage in the market where the fuel economy is top-priority for consumers.

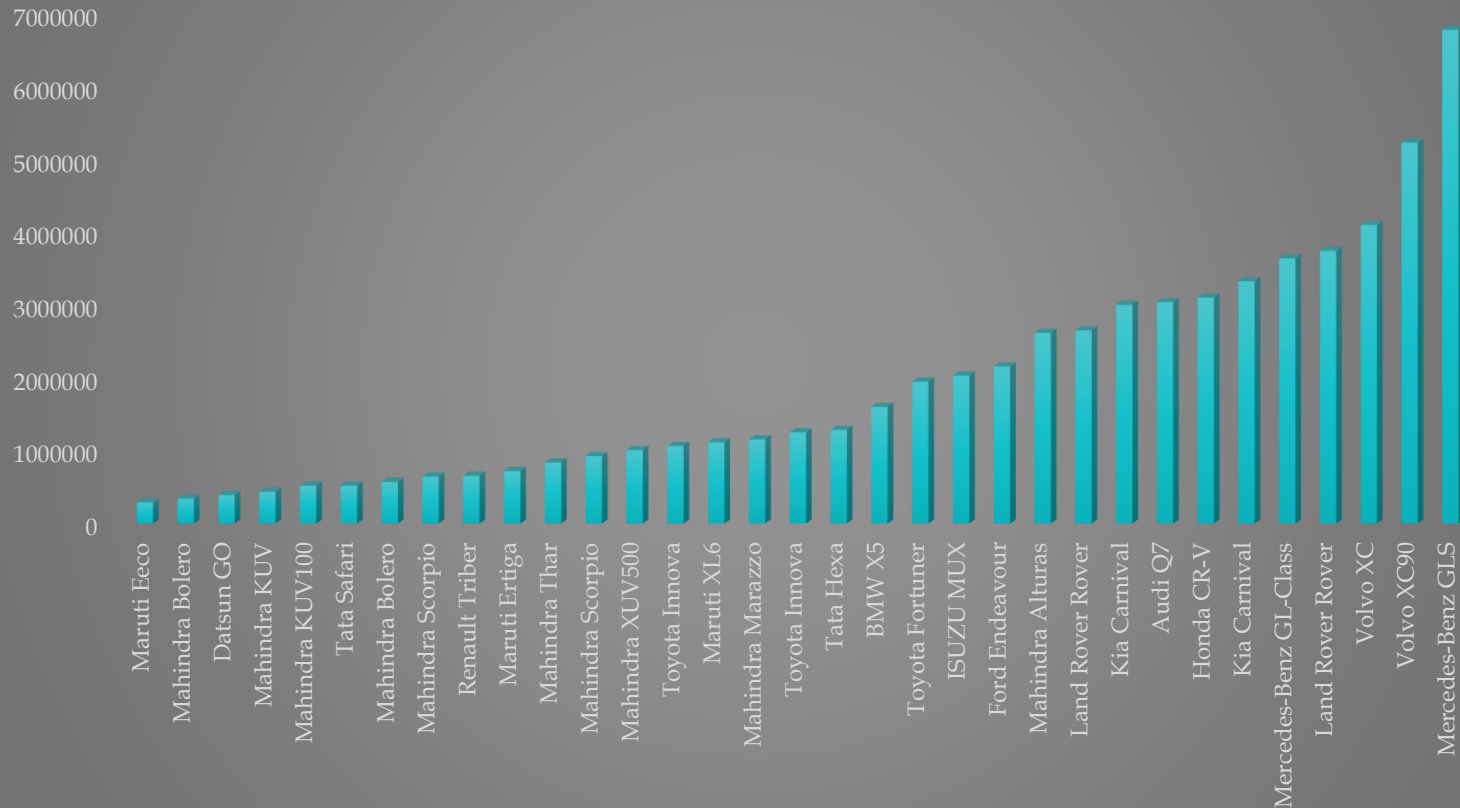
Depreciation trend of a vehicle prices overtime



- **Depreciation Over Time:** The average selling price of vehicles declines sharply as the vehicle age increases. This suggests rapid depreciation in the first few years of a vehicle's life, likely due to factors such as the loss of newness, technological obsolescence, and wear and tear.
- **Price Stabilization After 10+ Years:** After about 10 to 15 years of age, the average selling price levels off and remains relatively constant. This could indicate that older vehicles have reached a minimal resale value, potentially driven by their condition, rarity, or niche demand for older models.

5+ Seater cars and their Avg Selling price

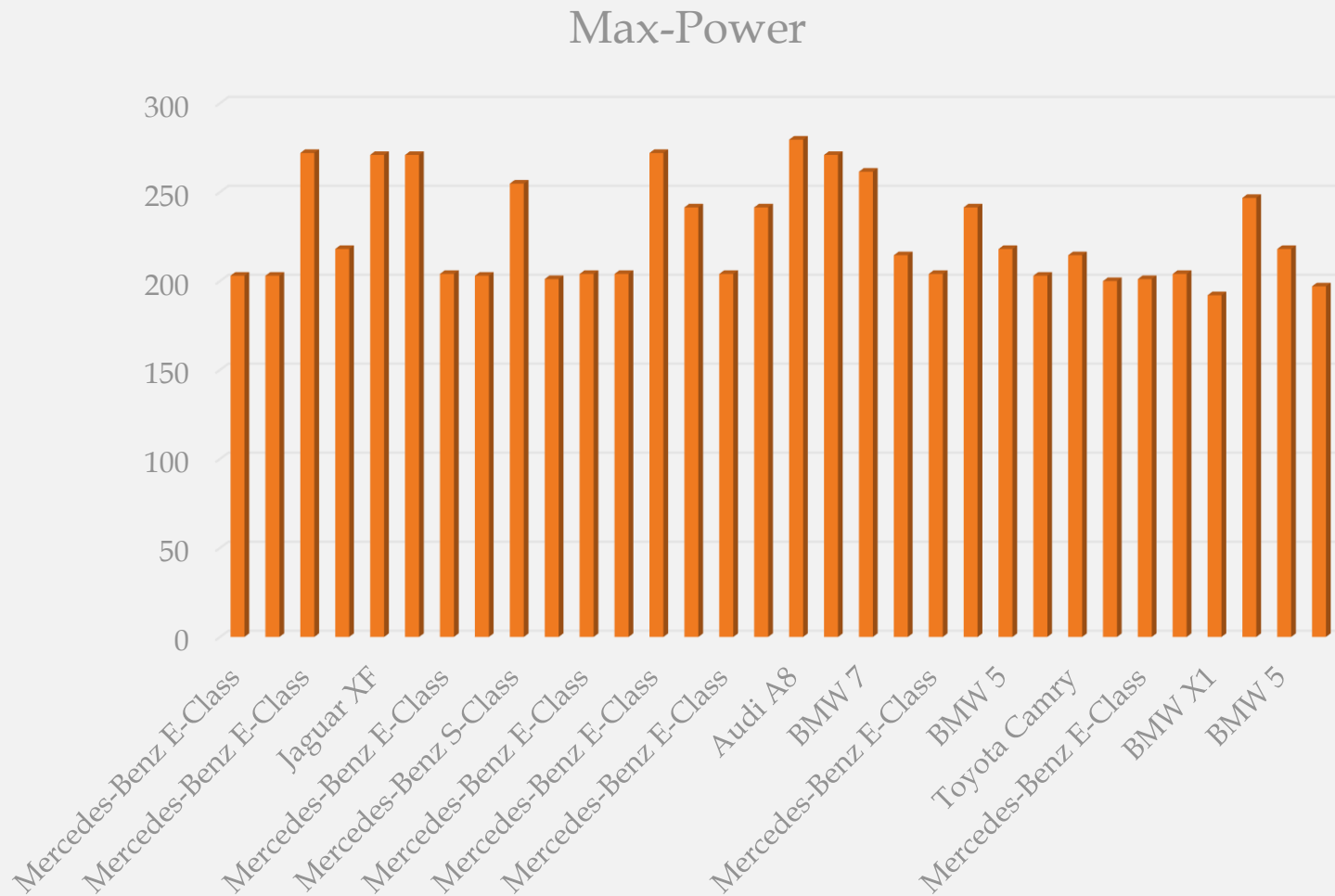
Average Selling Price of 7+ Seater Cars by Model



- Wide Price Range**

The chart shows a significant range in average selling prices among 5+ seater cars. At the lower end, vehicles like the Maruti Eeco and Mahindra Bolero have an average price below ₹1,000,000, while luxury brands like Mercedes-Benz GLS and Volvo XC90 have much higher selling prices, exceeding ₹6,000,000.

Luxury Performance in Premium Budgeted Cars



- This chart shows cars with max power output with power of more than 200HP where customers with a budget of 10-25Lacs can enjoyLuxury Sports experience.

- **Luxury Sports Dominance**

Mercedes-Benz and BMW models dominate the list in terms of presence, reflecting their strong reputation in delivering luxury vehicles with considerable power. The Mercedes-Benz S-Class, BMW 7, the Jaguar XF and the Audi A8 stand out, offering around 250-275 horsepower, appealing to customers who prioritize both brand prestige and performance.

Conclusion

- The analysis of Cardekho's extensive dataset offers valuable insights into the second-hand car market, demonstrating that Cardekho effectively caters to a diverse range of customer needs. From luxury car enthusiasts to budget-conscious buyers, the platform provides options across various price segments, fuel types, and transmission categories.
- Notably, luxury brands like Ferrari, Rolls-Royce, and Bentley continue to command high resale values, while brands like Toyota and Mahindra showcase reliability and durability with high mileage-driven vehicles. Additionally, Mercedes-Benz and BMW dominate in providing high-performance vehicles, catering to power-focused customers in premium budget segments.
- Furthermore, the analysis highlights key market trends, such as the dominance of manual transmission vehicles, the significant price difference between individual sellers and dealers, and the depreciation of vehicle prices with age.
- Overall, Cardekho stands as a comprehensive platform for all types of buyers, from those seeking affordable, fuel-efficient cars to those prioritizing luxury and performance.

Thank You!

