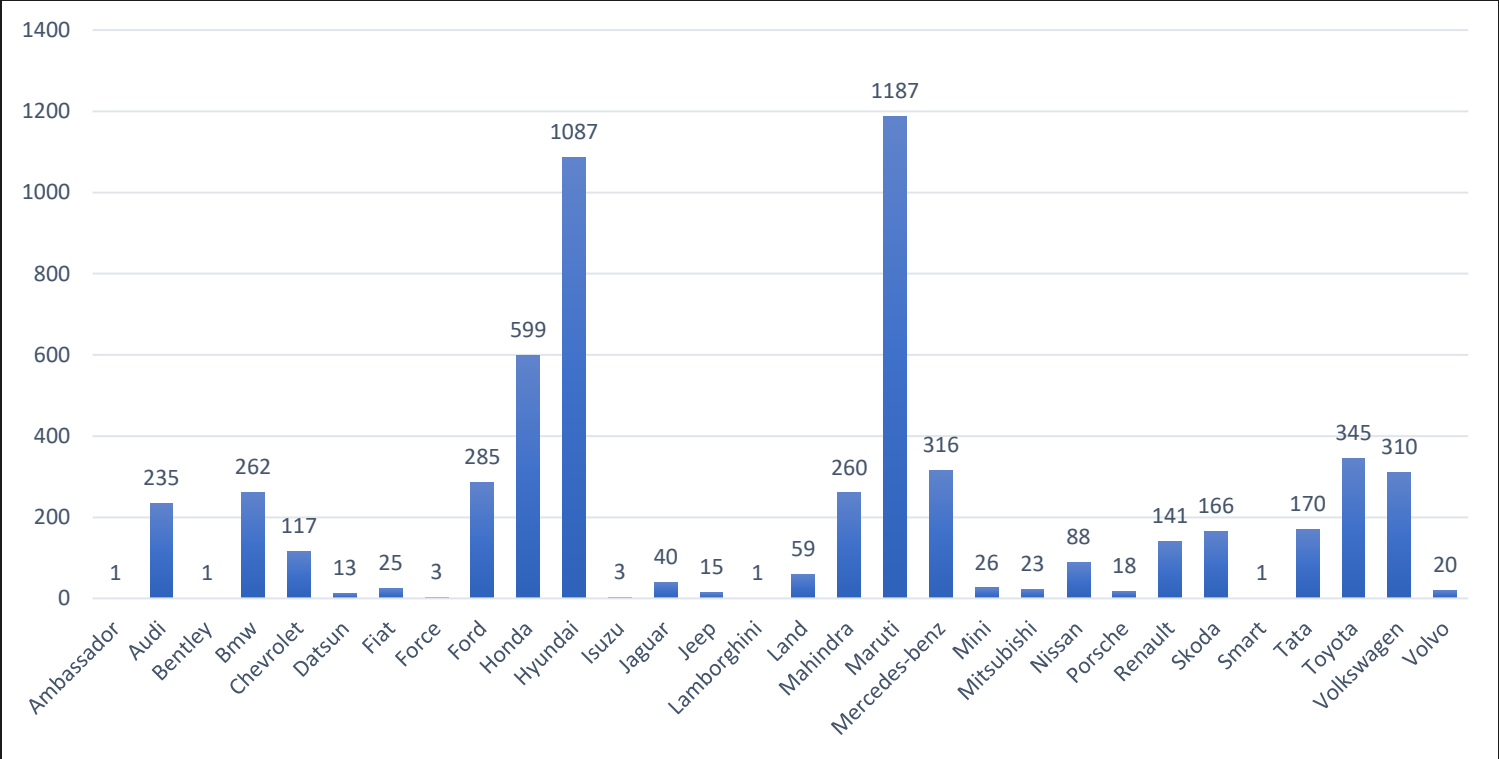


Used Car Data in India Analysis

Project Overview

This dataset is data on used cars in India. The aim of this project is to analyze data and provide a discussion or visualization of used car data in India. This project will be used as a selection process to take part in the Data Science Academy Compfest 2020.

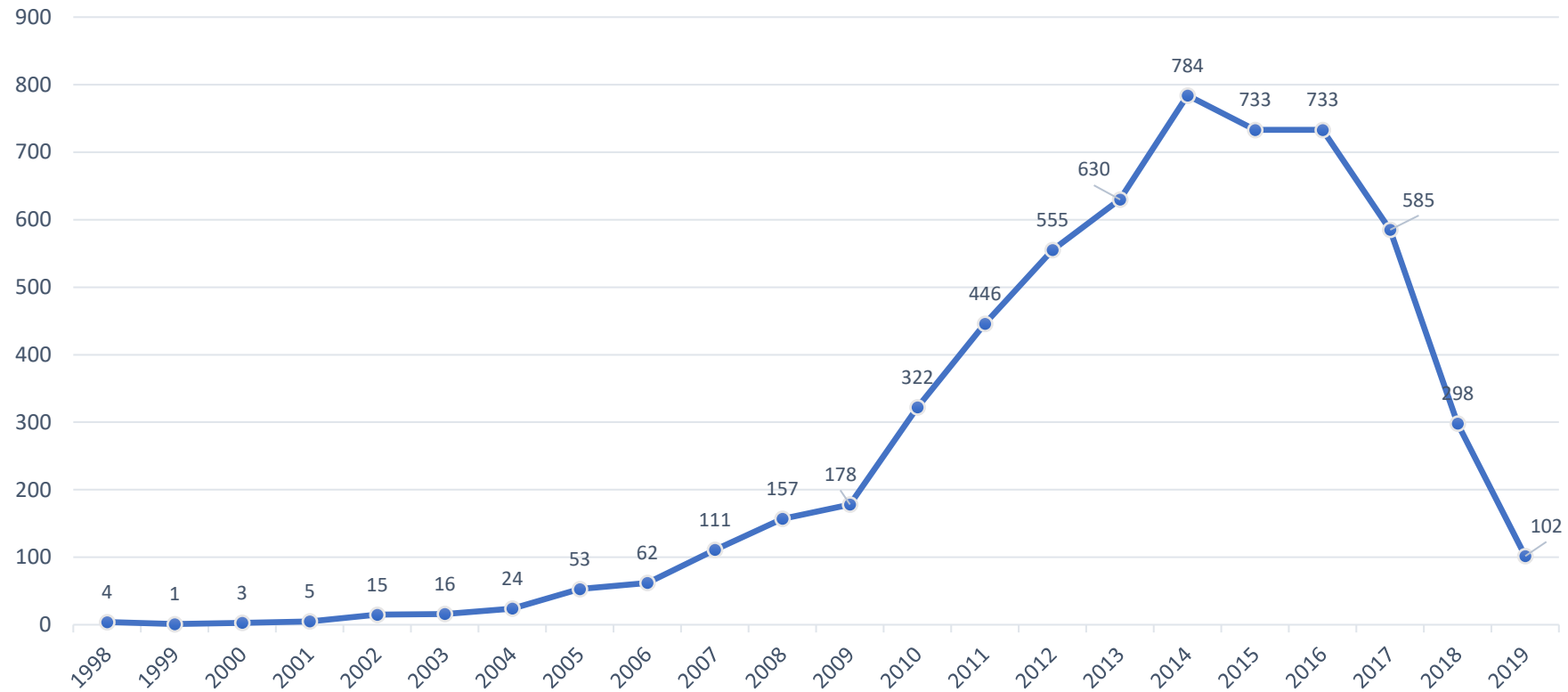
Chart 1. Number of Used Cars in India by Car Brand from 1998-2019



In 1998-2019, there were **30** types of car brands sold in India. **Maruti** has the highest number of used cars with a total of **1187** units.

The dominance of **Maruti** products is due to the pride of the Indian people for **Maruti Suzuki** products, which part of which is **43.79%** owned by the Government of India and absorbs **14,178** local workers (Supriyanto, Bambang).

Chart 2. Number of Used Cars in India by Year



- The number of used cars increased significantly every year and peaked in **2014** with a total of **784** units.
- Then after reaching its peak, the number of used cars has decreased and reached **102** units in **2019**.

Number of Used Cars by City in India

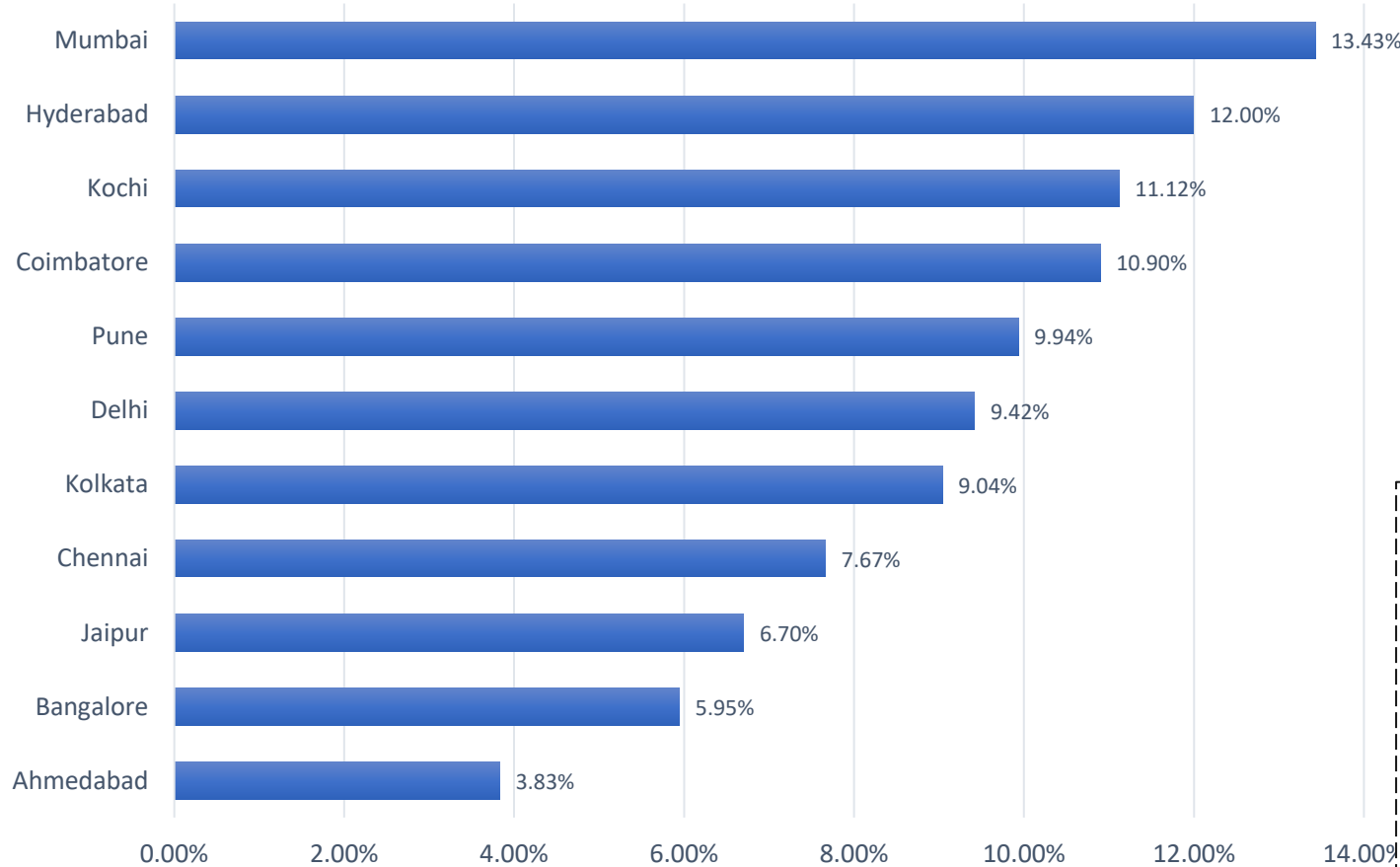
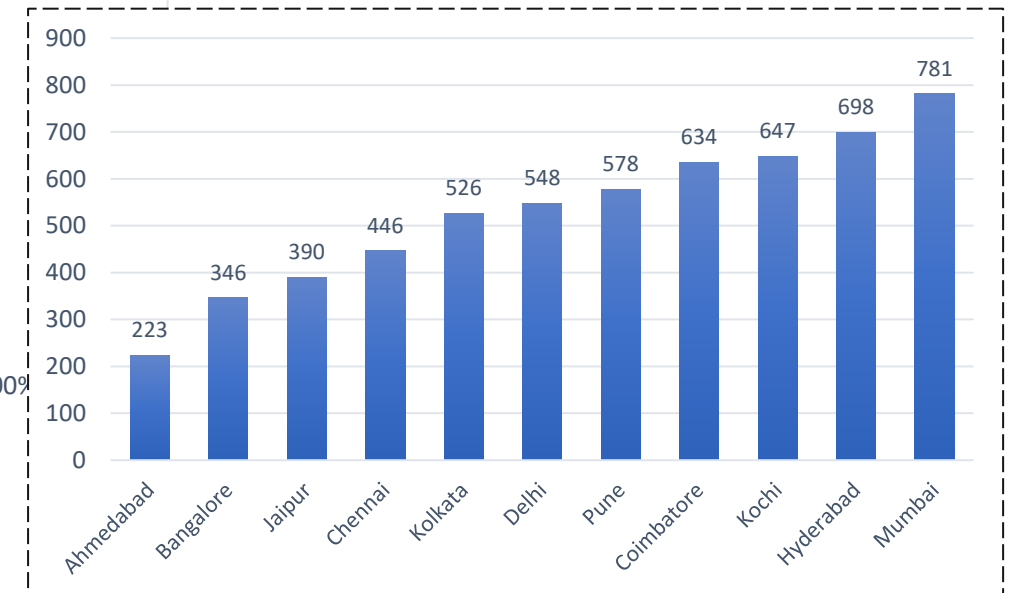


Chart 3. and 4. shows that :

13.43%

of the **5817** used cars are in Mumbai. Mumbai is listed as the City with the number of Used Cars in India.



Total Used Cars by Car Ownership Type from 1998-2019

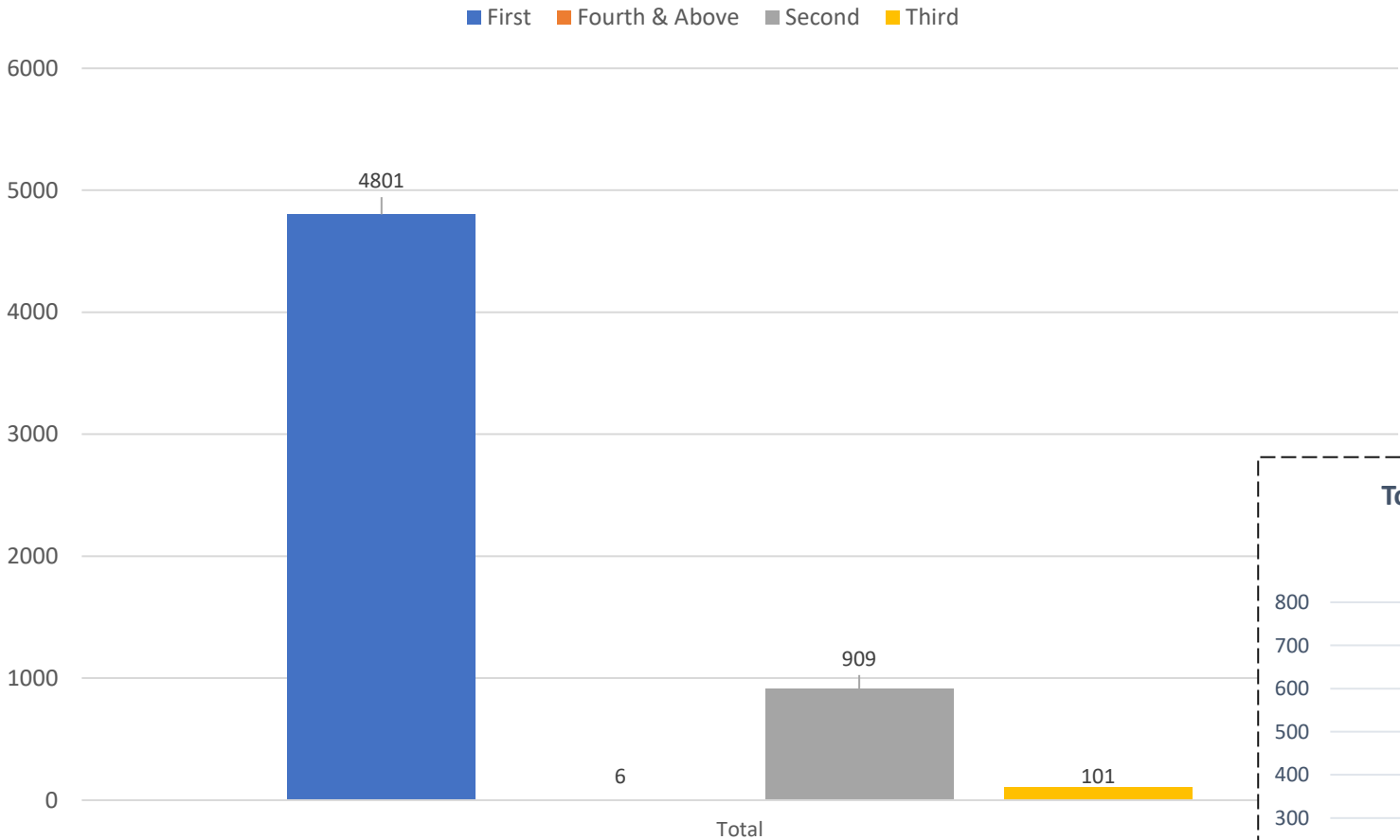


Chart 5. and 6. shows that :

Used cars with the **first ownership type** became the largest among other types of ownership with **4801** units.

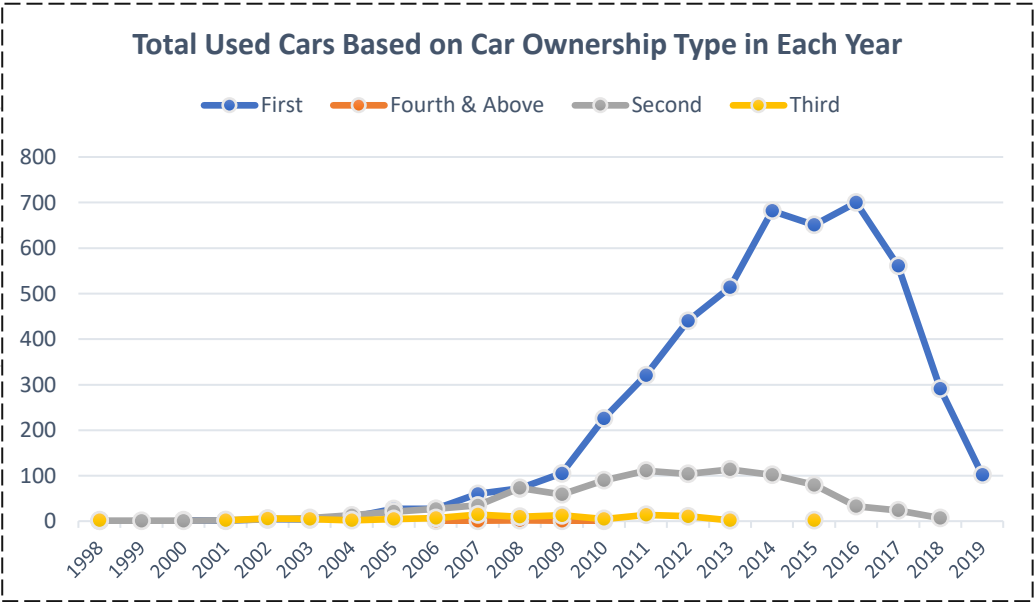
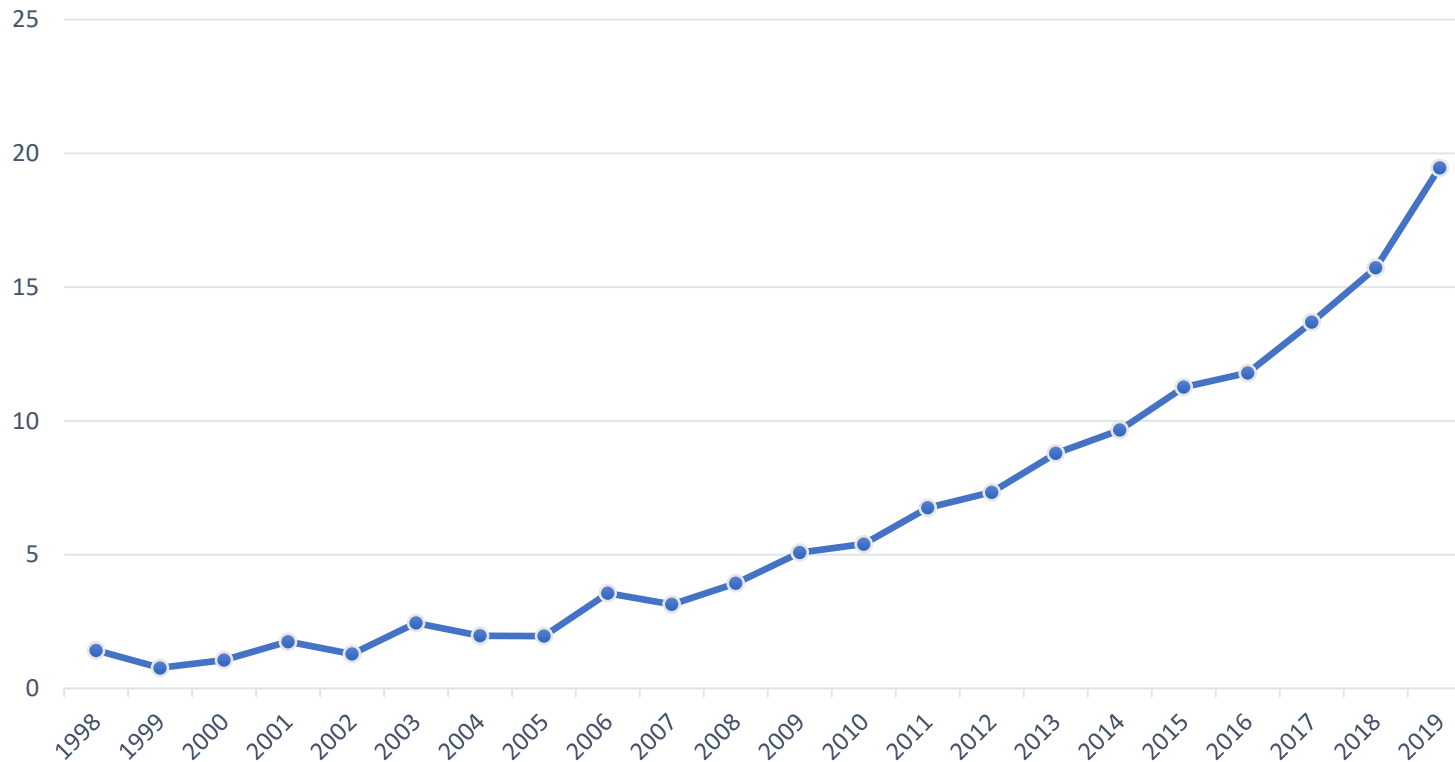
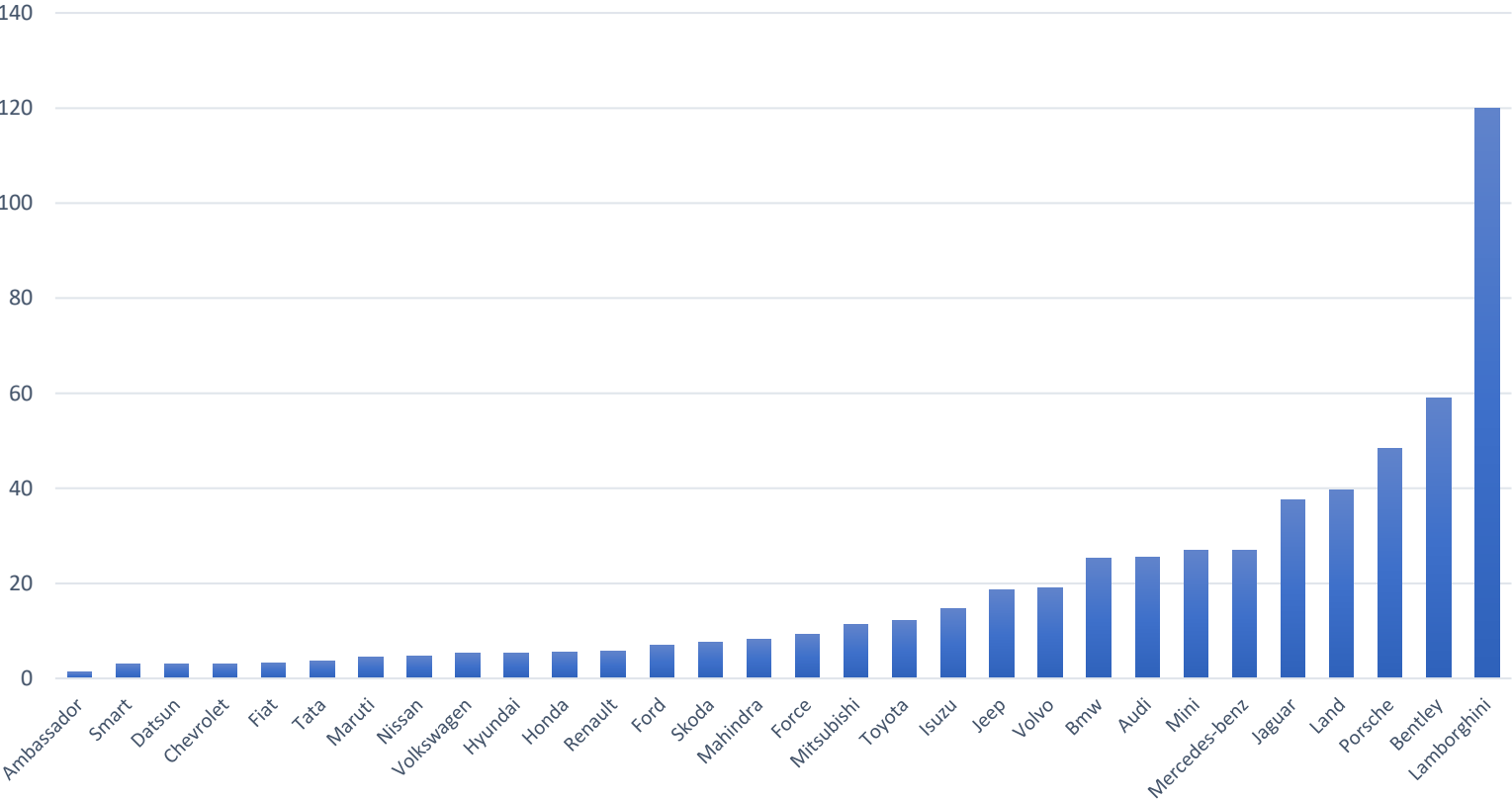


Chart 7. Average Price of The Used Cars as Per The Year of Sales



- Based on the data above, the car model in **2019** is a used car with the **most expensive** price.
- The **model year of the car** affects the **price of used cars**. So that the **average price of used cars** has **increased every year**.

Chart 8. Average Used Car Prices by Brand



- **Lamborghini** is the most expensive used car with an average price of **120** INR Lakhs.
- Meanwhile, **Ambassador** is the cheapest used car with an average price of **1.35** INR Lakhs.

Factors Affecting Used Car Prices

Chart 9. Correlation Matrix Plot

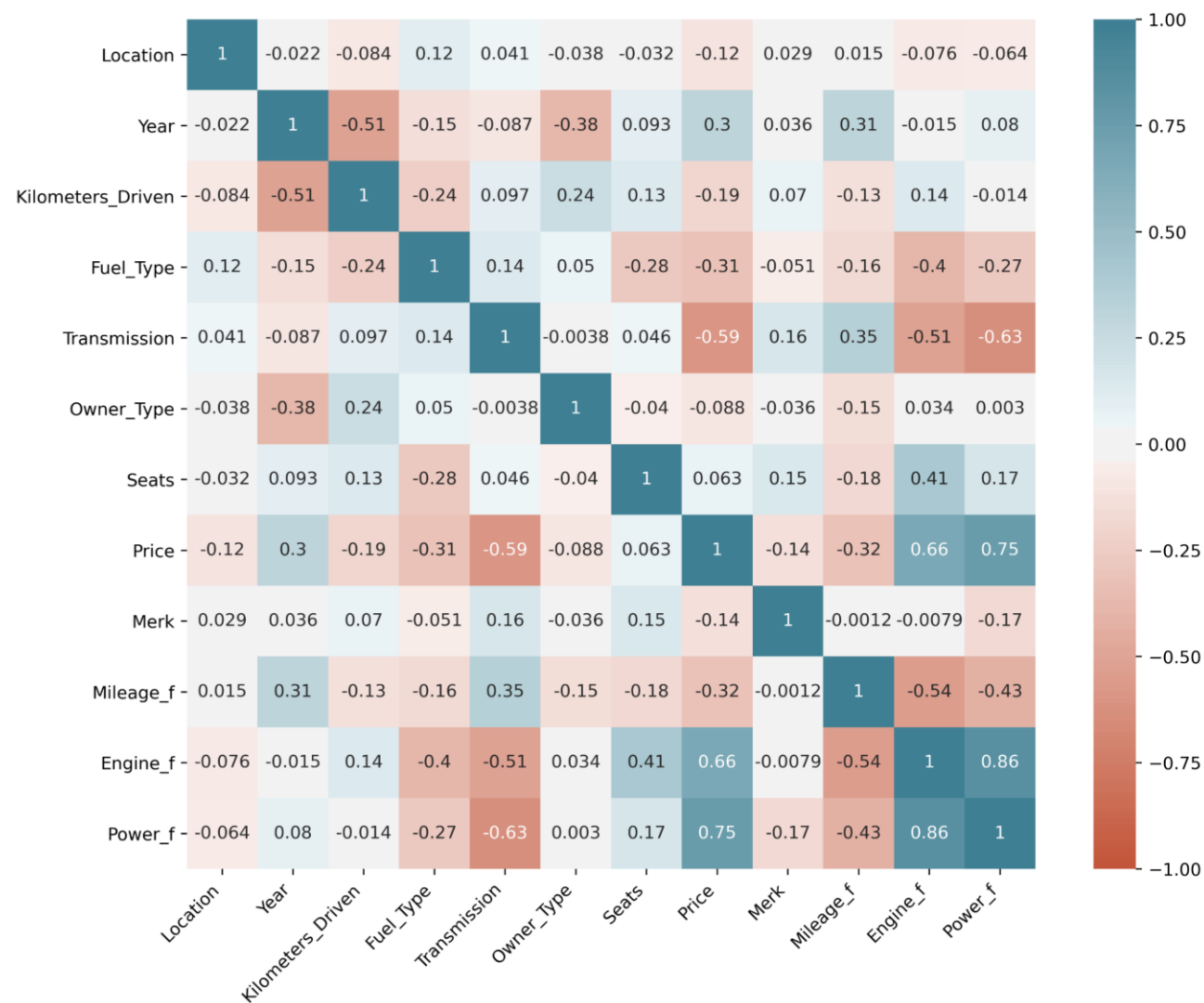


Chart 9. shows that :

- There are **3 variables** that have a **strong correlation** with **Price**, namely **Power** (equal to **0.75**), **Engine** (equal to **0.66**), and **Transmission** (equal to **-0.59**). Engine and Power have a positive correlation, while Transmission has a negative correlation.
- **The higher the engine power** and / or **the greater the engine capacity** and / or the **car has an automatic transmission**, the **higher the price**.

Conclusion

1. Maruti is a cheap car brand from Suzuki which has the most used cars available.
2. The city of Mumbai has the highest number of used cars, at 781.
3. The number of used cars has continued to increase since 1999 and reached its peak in 2014 at 784.
4. Used cars with the first car ownership type became the largest, followed by the second car ownership type.
5. The higher the engine power and / or the greater the engine capacity, then the price will be higher.
6. The trend of car prices each year has increased.
7. Lamborghini is the most expensive used car brand with an average price of 120 Lakhs INR.