

## Project description

The automotive industry has been rapidly evolving over the past few decades, with a growing focus on fuel efficiency, environmental sustainability, and technological innovation. With increasing competition among manufacturers and a changing consumer landscape, it has become more important than ever to understand the factors that drive consumer demand for cars. Overall, this dataset could be a valuable resource for data analysts interested in exploring various aspects of the automotive industry and could provide insights that could inform decisions related to product development, marketing, and pricing.

## Approach

For analytics, I have used MS-excel to perform various functions like pivot table, graph, regression. I will also use power BI to analyse the charts. I have also created interactive dashboards using slicers. I have also cleaned the data by removing blanks and duplicate data.

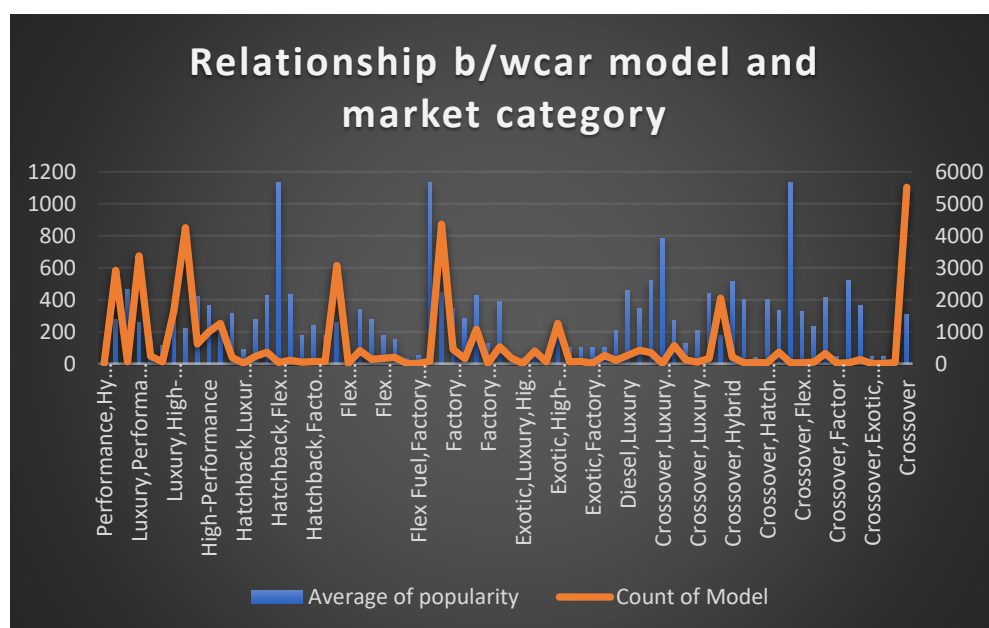
## TECH-STACK USED – Microsoft excel and word

## Tasks: Analysis –

### Task 1-----

#### How does the popularity of a car model vary across different market categories?

I have created a pivot table and a combo chart for this purpose.

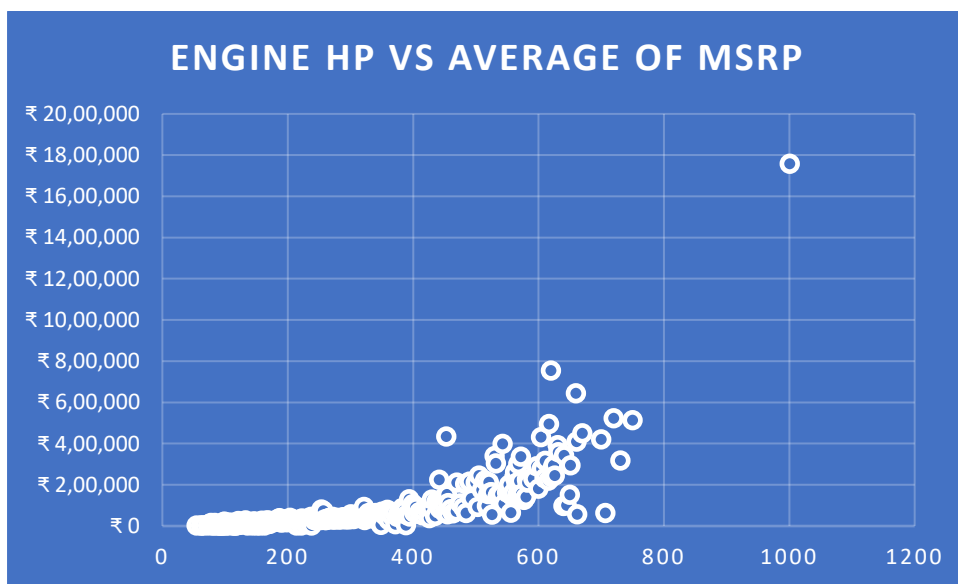


Crossover category has the greatest number of models whereas the popularity average is more for 3 market categories with 5657 number. It can be checked in the excel file.

## Task2-----

**What is the relationship between a car's engine power and its price?**

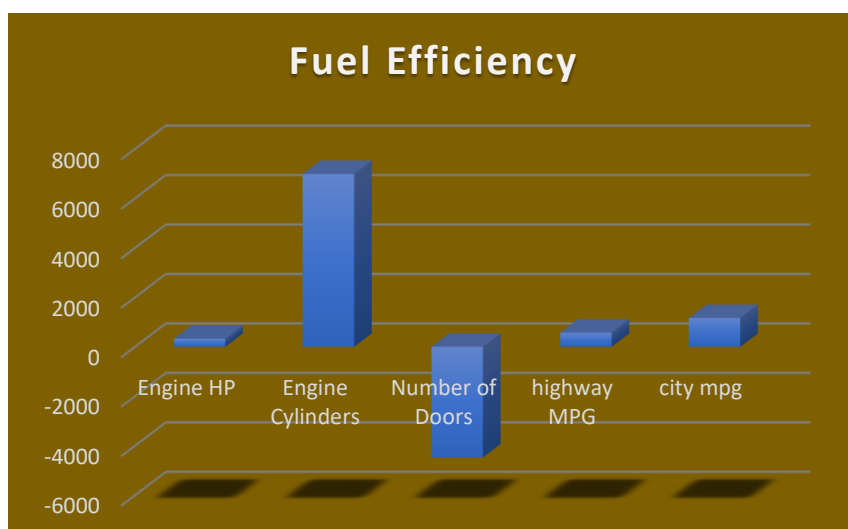
**Engine Power and MSRP have a positive linear relation. If engine power increases price will also increase**



## Task 3-----

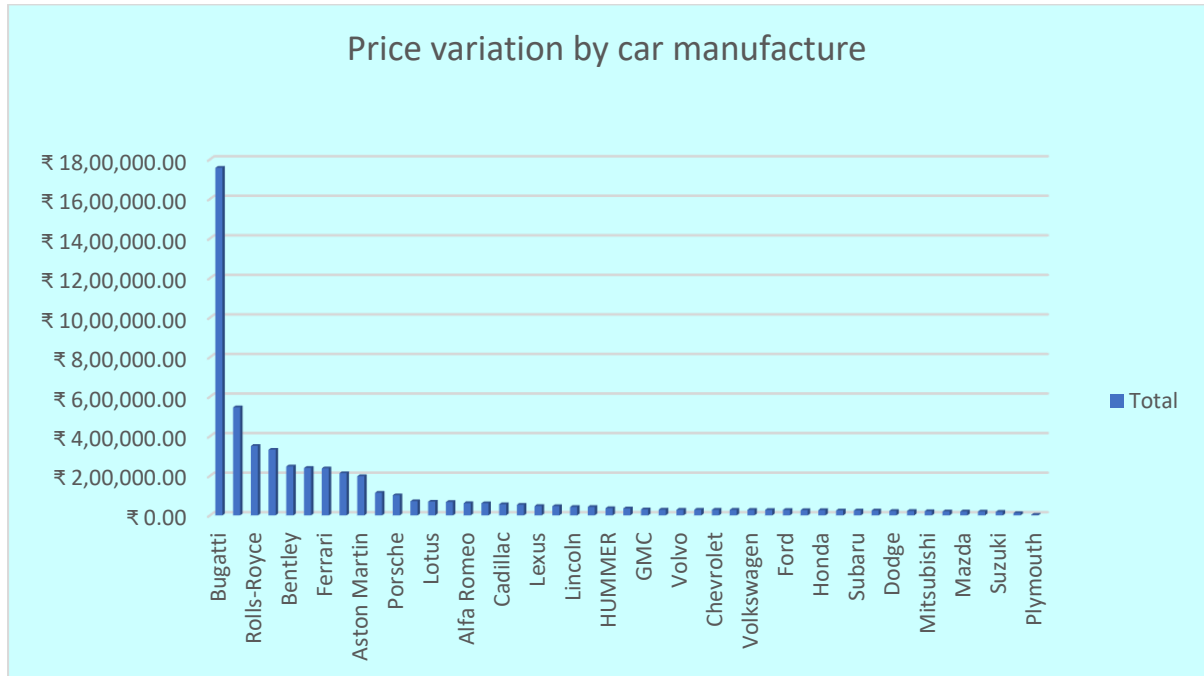
**Which car features are most important in determining a car's price?**

**Engine Cylinder has the highest positive coefficient in determining MSRP.**



## TASK 4-----

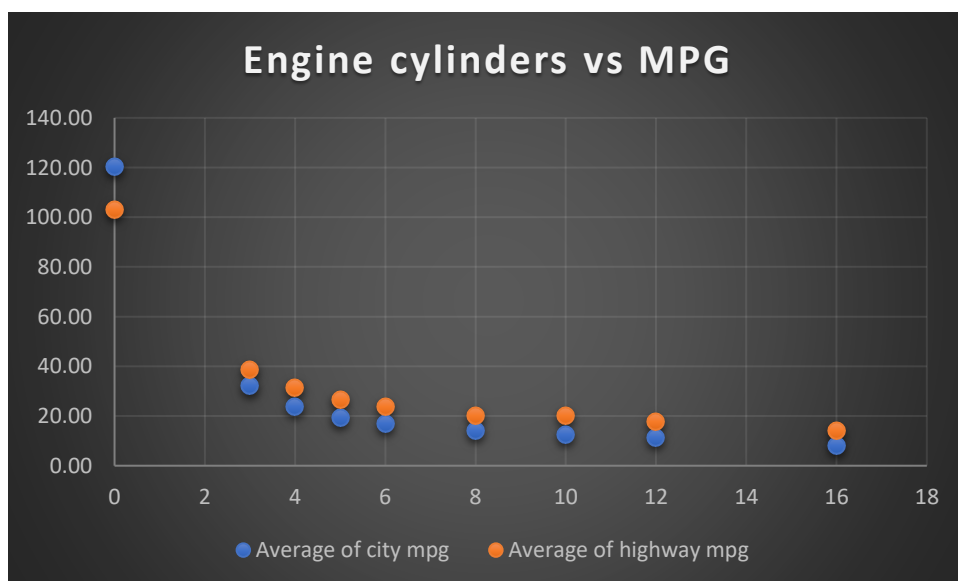
How does the average price of a car vary across different manufacturers?



Buggati is the most expensive car sold

## TASK 5-----

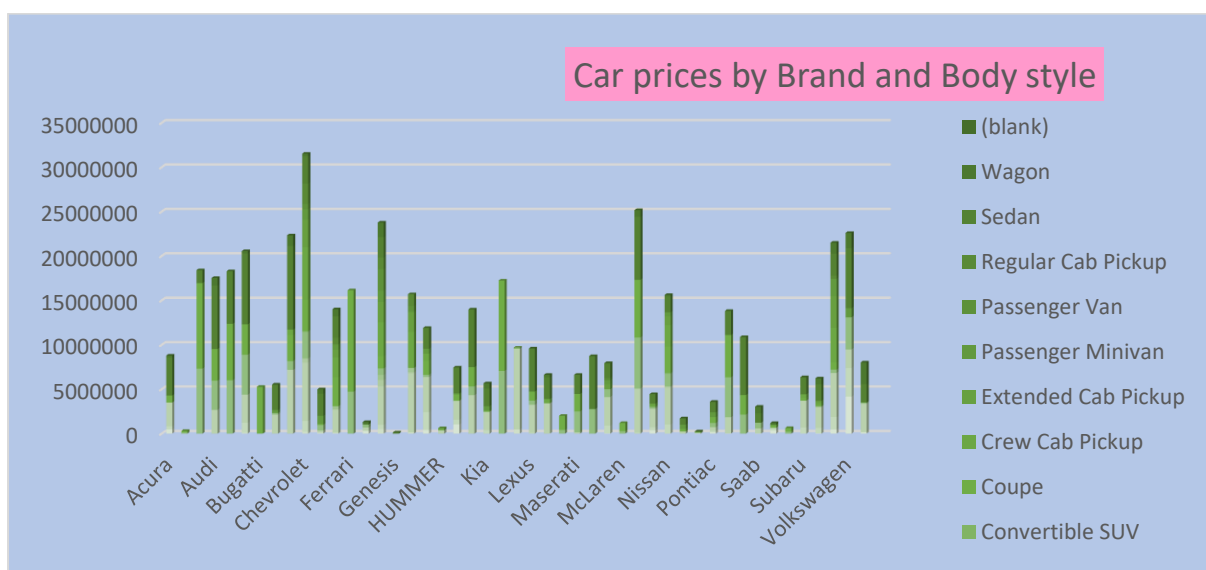
What is the relationship between fuel efficiency and the number of cylinders in a car's engine?



we see here if the number of cylinders increase, highway and city mpg will decrease so we can say that both have a negative relationship between them.

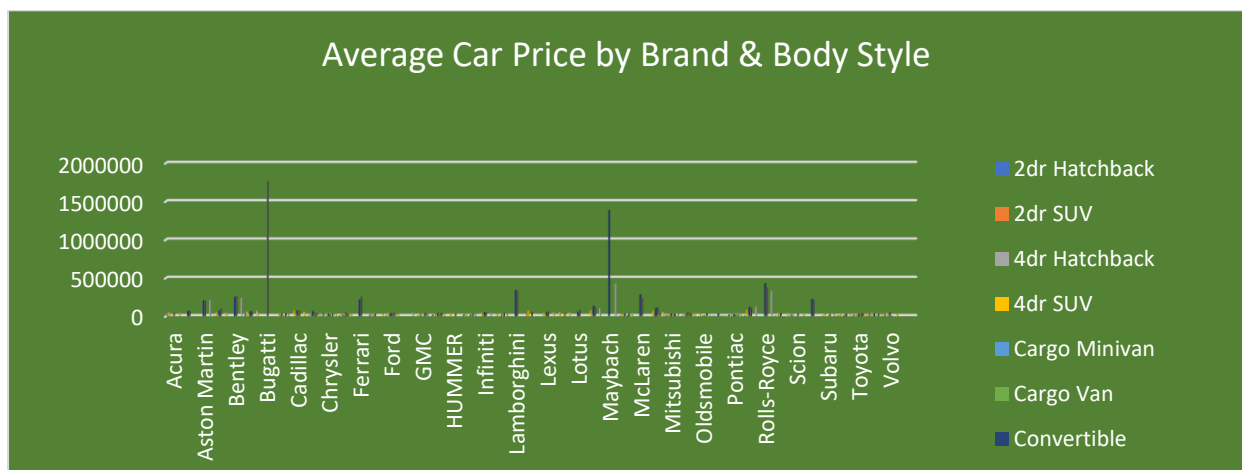
## THE DASHBOARD-----

**Task 1:** *How does the distribution of car prices vary by brand and body style?*



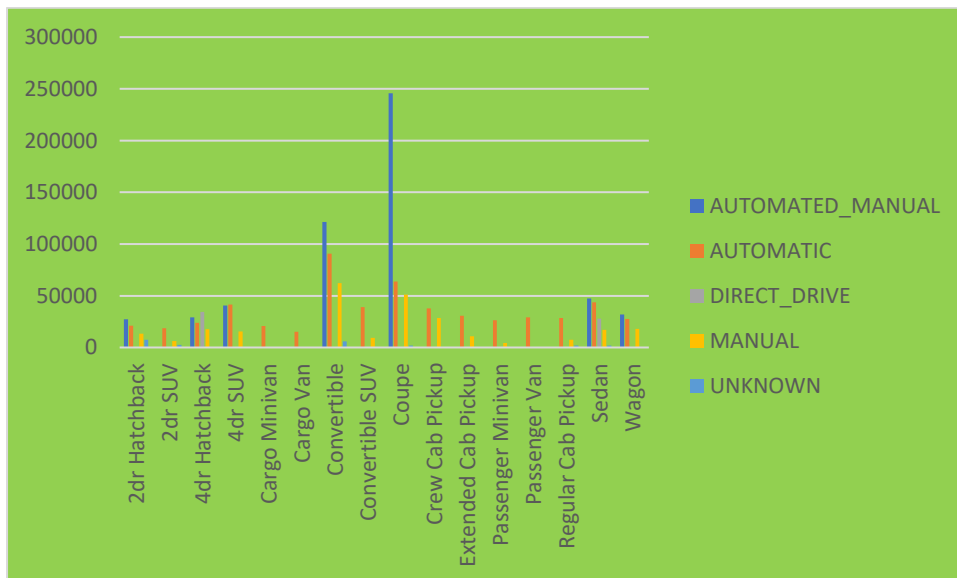
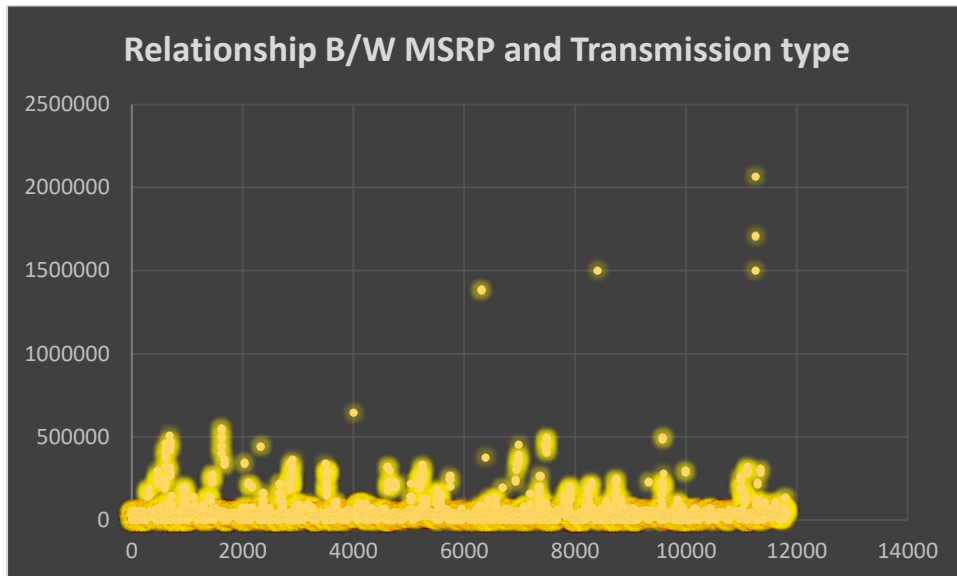
**Chevrolet** has the highest price distribution.

**Task 2:** *Which car brands have the highest and lowest average MSRPs, and how does this vary by body style?*



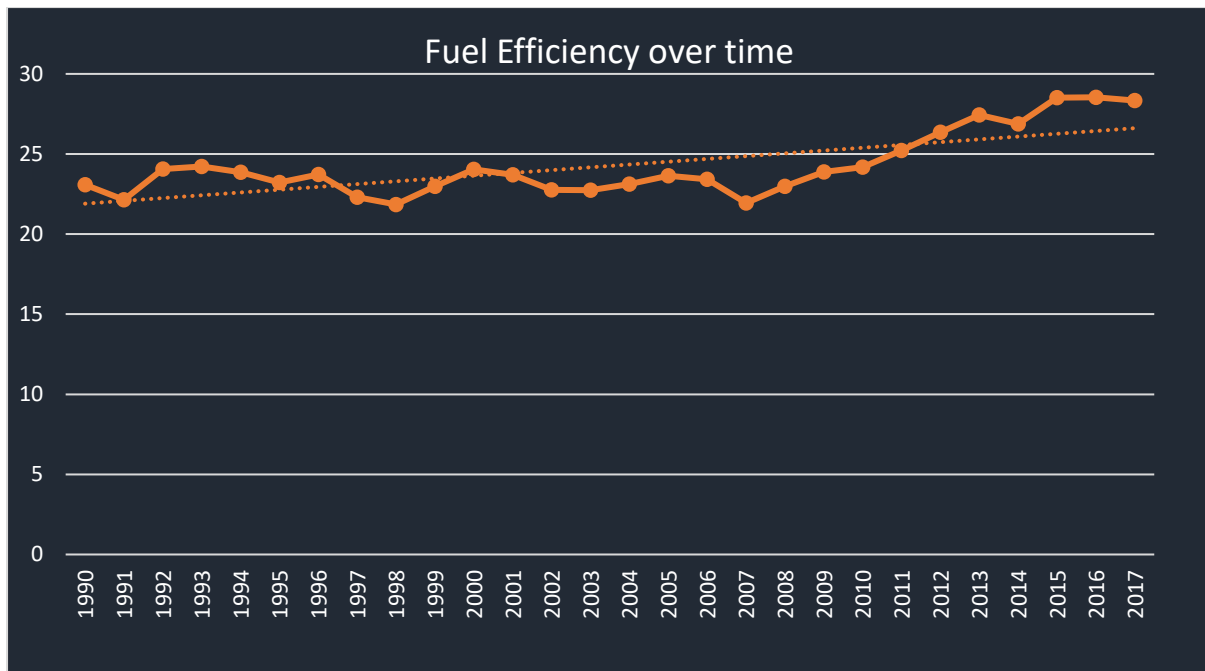
**Result: Bugatti has the highest MSRP and Plymouth has the lowest Average MSRP**

**Task 3: *How do the different features such as transmission type affect the MSRP, and how does this vary by body style?***



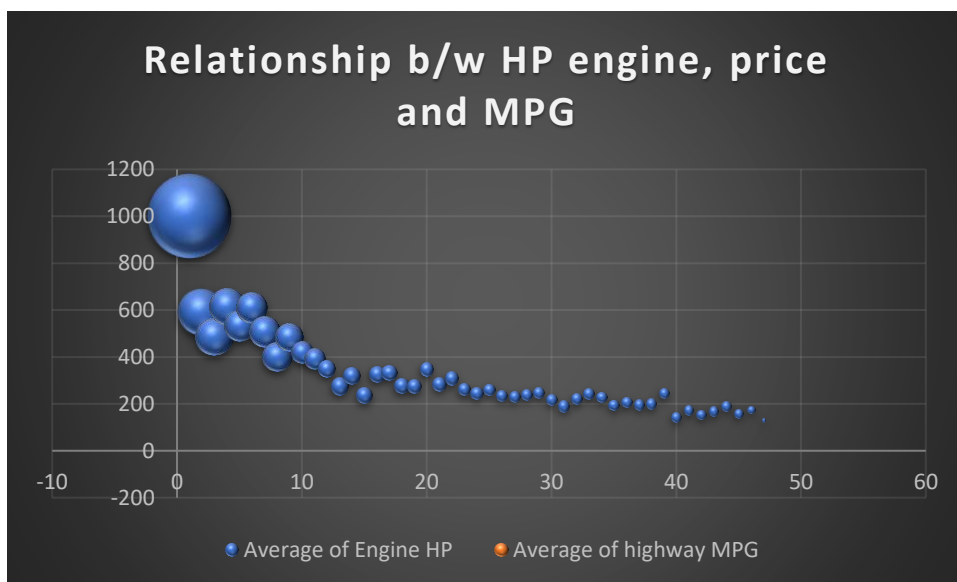
**Result: AutomatedManual is the most expensive category and the most popular also.**

**Task 4: *How does the fuel efficiency of cars vary across different body styles and model years?***



**Result:** Over the year fuel efficiency is increasing at a slow speed.

**Task 5:** *How do the car's horsepower, MPG, and price vary across different Brands?*



**Result:** If engine HP increases, highway mpg will decrease, and the price will also increase.

