Project Report -2

ANALYSIS-2

1. Can you tell me No of Vehicles by Brand Available on ebay for sale with the help of visualization?

SUMMARY

- I have observed that the no of the vehicle by brand available on ebay sale.
- I am took the help of value counts() function based on brand.
- Index change we use set_index function.

```
plt.figure(figsize=(20, 6))
sns.barplot(data=data1,x="Brand",y="brand_count")
plt.title("Number of vehicles by Brand")
plt.xlabel("Brand")
plt.ylabel("No.of Vehicles")
plt.xticks(rotation=90)
plt.show()
```

- I am analysing the data show the visualize.
- I am took the help of matplot.lib and seaborn with import the two and using count plot.
- The data, I observed the total count of vehicles for various brand available on e-bay. Volkswagen, leads the pack with the highest number of listings, followed closely by BMW and open .In contrast, less common brands like Lancia and lada. The count of vehicles by brand data provides valuable insights into popularity and market presence of different car brands on the e-bay platform. Understanding these brand-wise listing counts can be beneficial for market analysis , targeted marketing strategies, and assessing the platform's overall diversity in the automotive segment.
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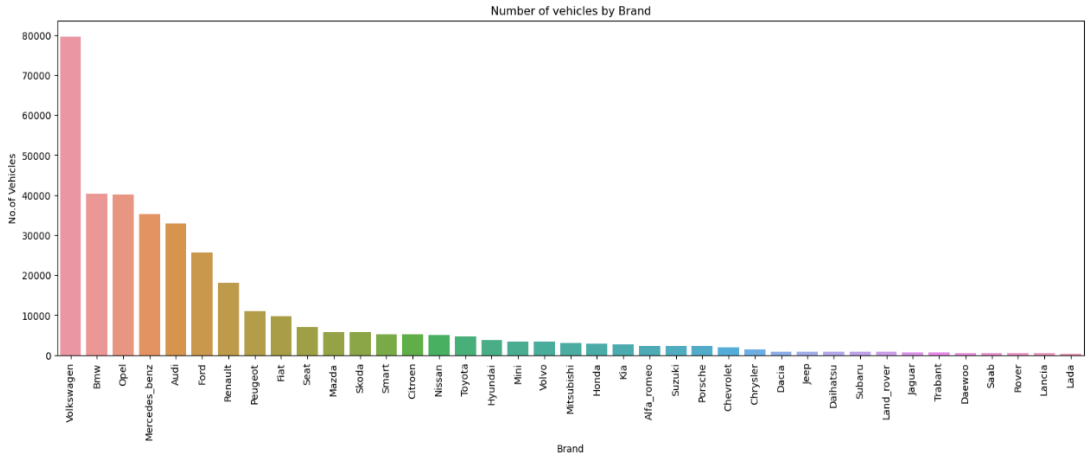


2. What is the Average price for vehicles based on the type of vehicle as well as on the type of gearbox. Explain me with both numerical and visualization analysis?

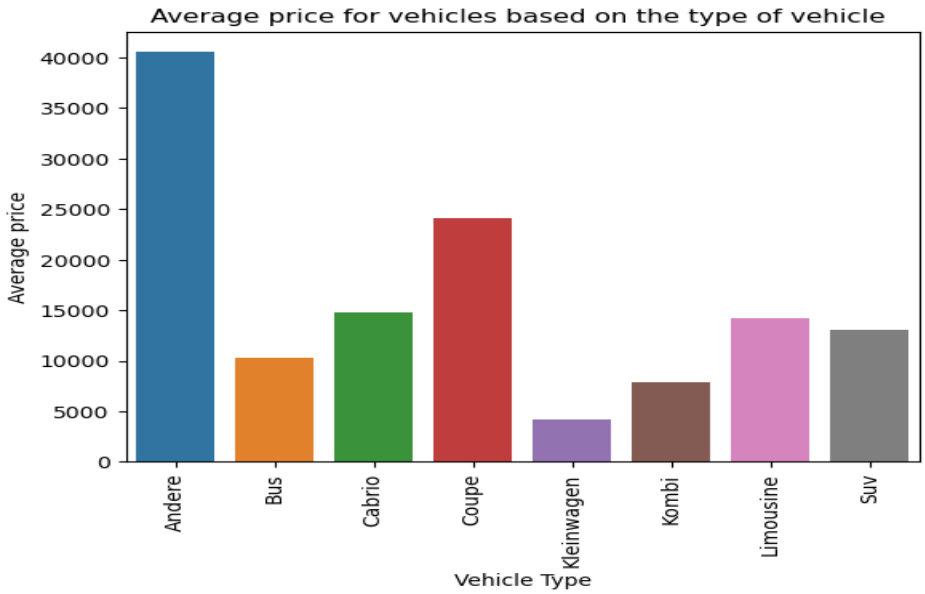
SUMMARY

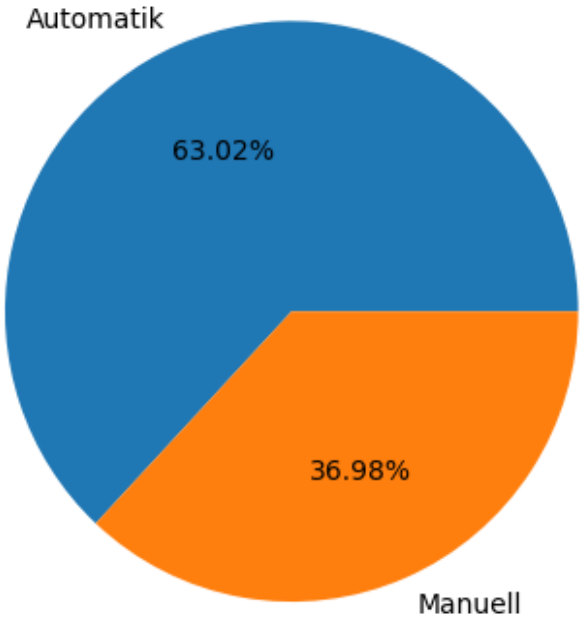
- I have observed that the variation of of the price range by the vehicle type.
- I am took the help of group by function because of group by is used to combine the two column give the result in look like one column.

```
sns.barplot(data=vehicle,x="vehicleType",y="price")
plt.title('Average price for vehicles based on the type of vehicle ')
plt.xlabel('Vehicle Type')
plt.ylabel('Average price')
plt.xticks(rotation=90)
plt.show()
```

```
plt.pie(gearbox.price, labels=gearbox.gearbox,autopct='%1.2f%%')
plt.show()
```

- I am analysing the data show the visualize.
- I am took the help of matplot.lib and seaborn with import the two and using bar plot . and pie chart.
- The pie chart data illustrates the average prices of vehicles based on their gearbox types listed on e-bay. The cars with automatic gearboxes have higher average price compared to those manual transmissions. This suggests that automatic vehicles are generally perceived as more desirable or luxurious, leading to a higher market values. These pricing highlight the impact of gearbox type on the overall market value of vehicles, providing valuable insights for both sellers and buyers.





3. What is the marginal probability of private seller?

SUMMARY

- I have observed that the Marginal probability of private seller.
- I am took the help of value_counts() function.
- We using the formula also.
- marginal_prob=count_privat/count_seller.

- Value is marginal probability is 0.9999918376675319