



G2M STUDY CASE

Amna Naeem

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BACKGROUND STUDY:

- XYZ is a private firm in US. Due to remarkable growth in the Cab Industry in last few years and multiple key players in the market, it is planning for an investment in Cab industry and as per their Go-to-Market(G2M) strategy they want to understand the market before taking final decision.

Objective of the Study:

- To analyze the Cab industry and suitable company for XYZ to make right decision for their investment.

Hypothesis:

The hypothesis established for this study is:

Both Cabs Yellow and Pink are equal in terms of preference and Profit



DATA SET:

- The four data sets has been used namely; Cab_data, Customer_ID, Transaction_ID and City.
- Four data sets are merged into the one final data set.
- There are 14 features with 359392 observations.

Preliminary Analysis:

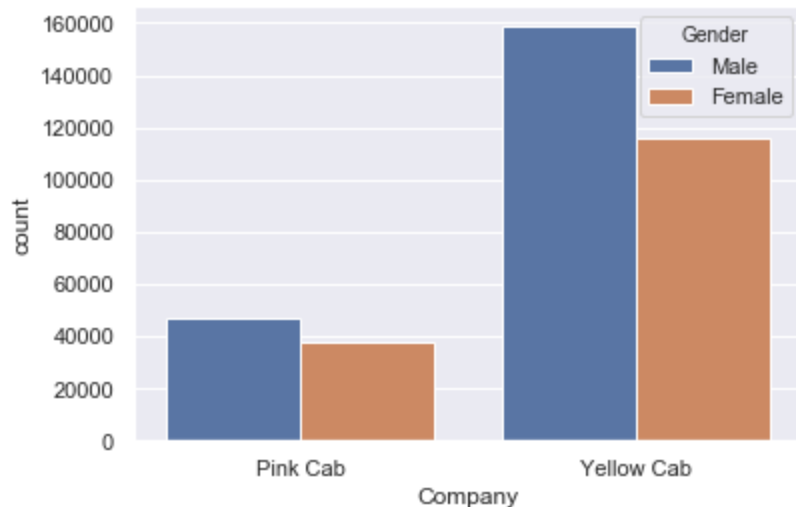
- Data is examined for missing values and outliers.
- No missing record is found for any feature.
- The outliers are found related to feature Price but because of limited information related to the trip duration this is treated as not an outlier.



COMPANY AND GENDER

Company	Gender
Pink Cab	84711
Yellow Cab	274681

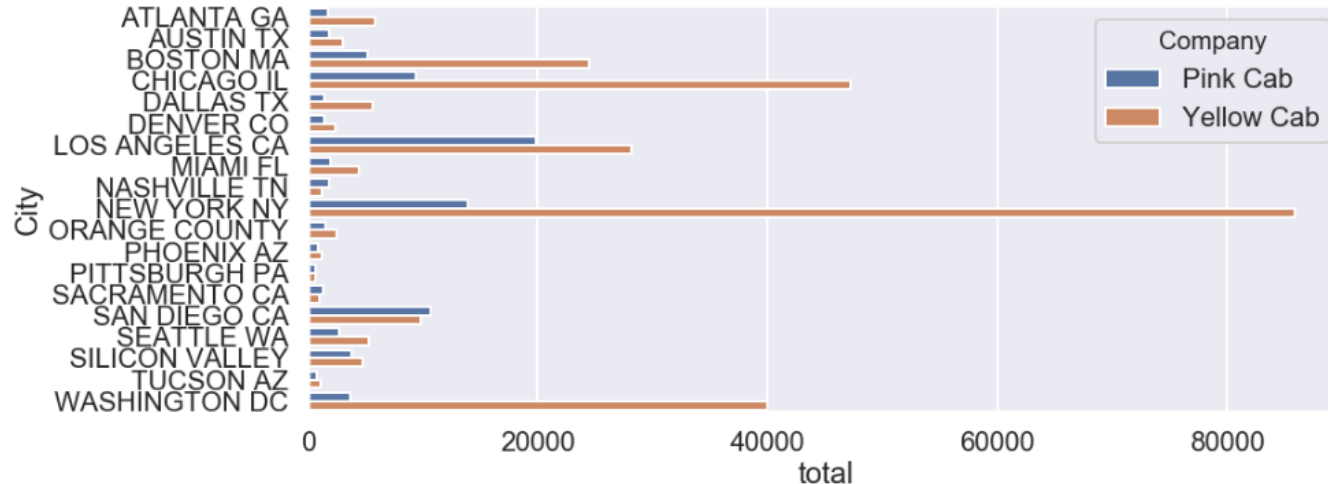
The both gender male and female prefers the yellow cab. The difference is clearly visible at a large scale. There are 189,970 more people who prefers yellow cab.



COMPANY, CITY AND USERS:

Company	Users (%)
Pink Cab	18.692547
Yellow Cab	81.307453

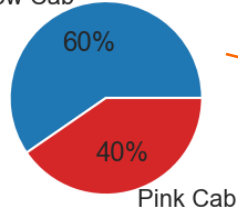
User feature is considered as number of users per cab in the particular city. However, this is assumed that users can consist of . The City analysis shows that mostly people in cities prefers yellow cab. There is 125.23% difference in number of users of both cabs.



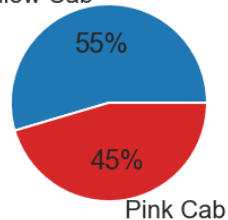
COMPANY AND PROFIT:

Cab Type	Mean Price Charged	Mean Cost of Trip	Mean Profit
Yellow Cab	458.18	297.92	160.25
Pink Cab	310.80	248.15	62.65

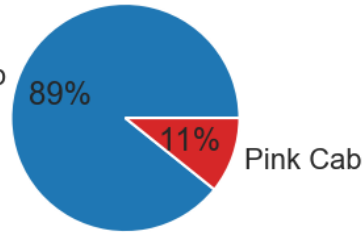
Mean Price Charged
Yellow Cab



Mean Cost of Trip
Yellow Cab



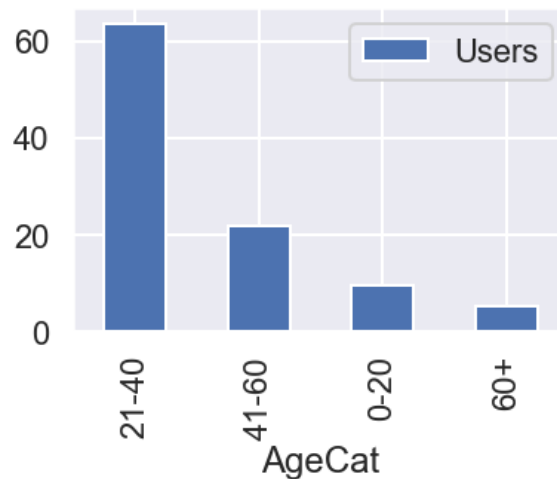
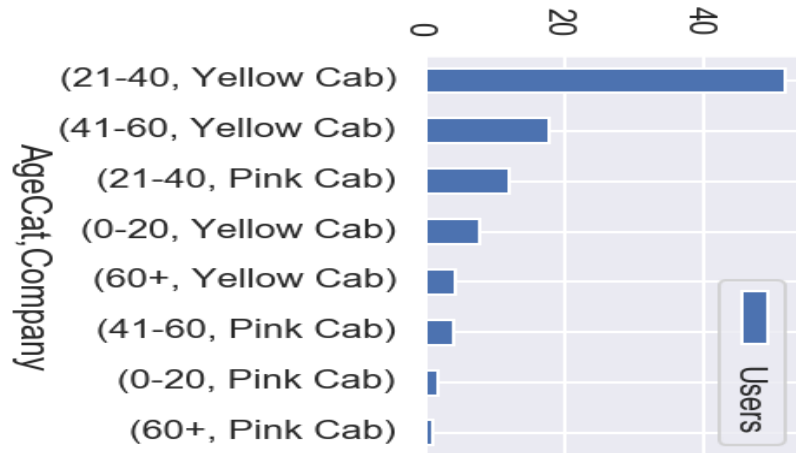
Profit



Profit is computed using Price charged and Cost of Trip. From analysis it can be seen clearly that yellow cab is more profitable in terms of investment.

COMPANY AND AGE PREFERENCE

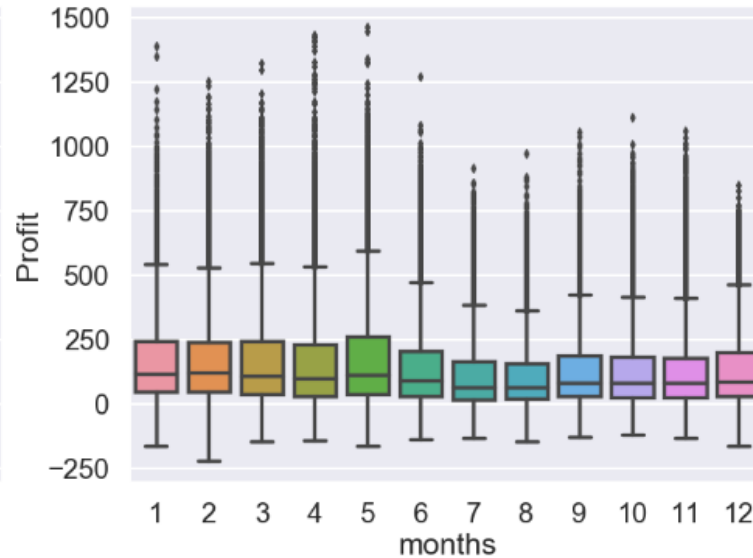
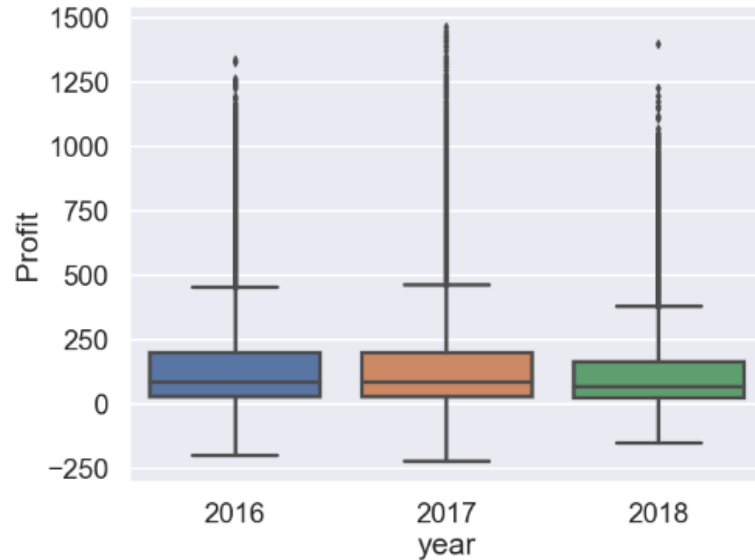
Age Category	Population(%)
0-20	9.542888
21-40	63.720466
41-60	21.739738
60+	4.996908



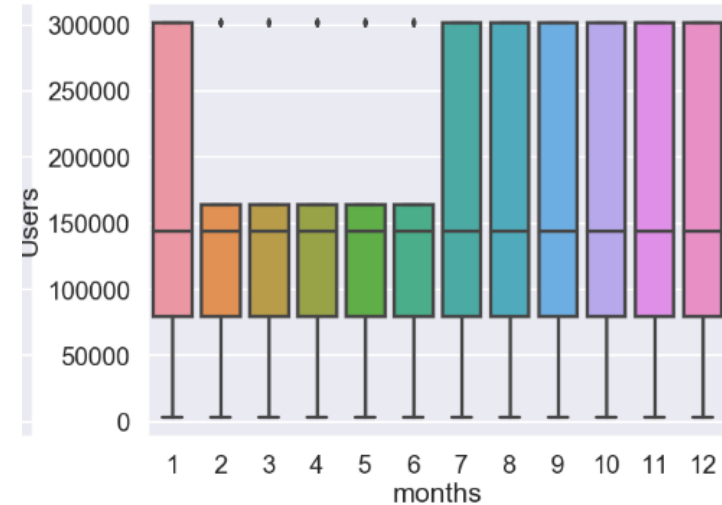
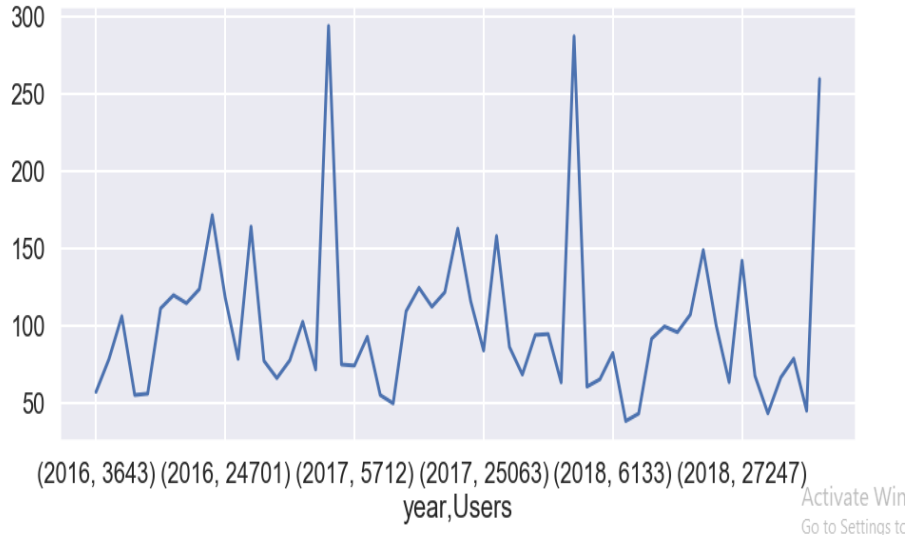
The mostly users of cab are of age between 21-40 and people of this age prefers to use yellow cab

TIME SERIES ANALYSIS:

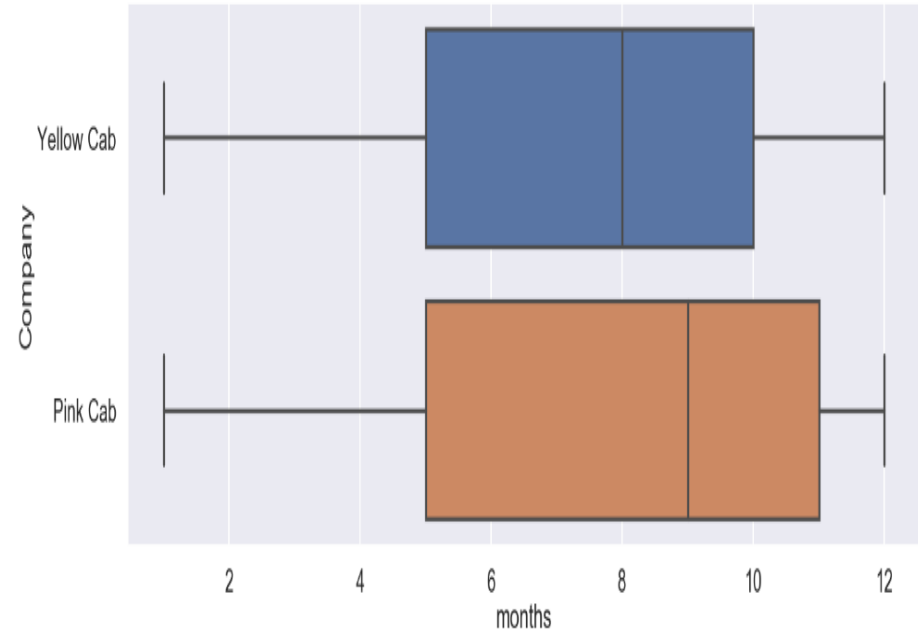
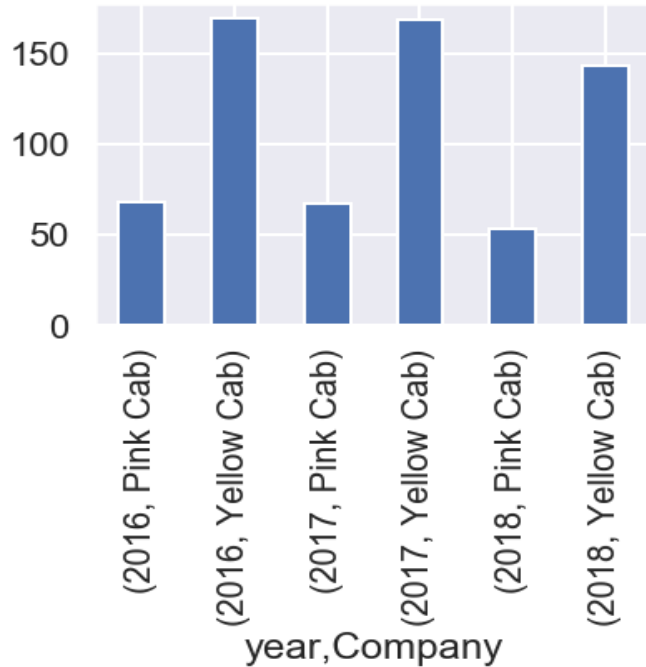
The profit is examined against year and month however, there are some extreme values where as the profit difference can be seen monthly.



The trend in the users per year is found to exist in the data. However, the trend of using cabs is increasing.



YEARLY AND MONTHLY PREFERENCE OF COMPANY:



ONE WAY-ANOVA TEST:

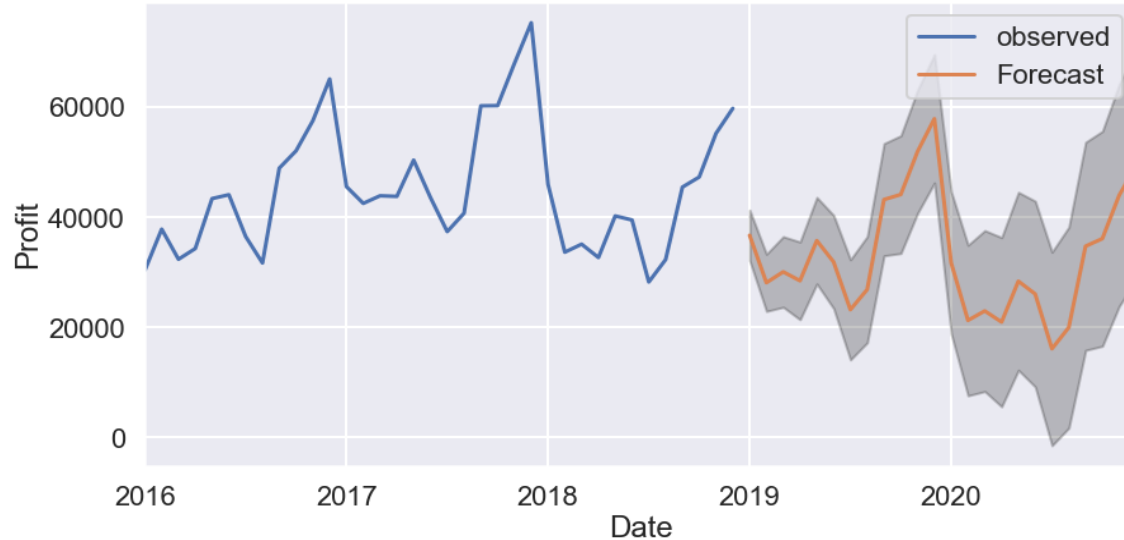
One way ANOVA test is performed to test the hypothesis established as:

Ho: There is a no difference between Companies in terms of Profit

According to the results obtained we can reject null hypothesis and conclude that both companies are different in terms of Profit



ARIMA MODEL FOR PROFIT IN CAB INDUSTRY FOR FORECAST (2019-2020)



ARIMA model is used to see the pattern of profit for year 2019 and 2020. The profit seems to follow the same trend. The use of Cabs seems to increase with time.



CONCLUSION & FUTURE RECOMMENDATION:

- Both companies are evaluated using different features.
- The price charged has some outliers but because of the lack of information its hard to remove specific outliers.
- The yellow cab is found to be profitable company in order to make investments.
- The outliers are found in terms of price however they are not excluded from study because of lack of information. The proper information regarding the Price feature can help to exclude the outliers and a chance of influencing the decision.



Thankyou

