G2M Case Study

Cab Investment Firm

05-August-2021

Background –G2M(cab industry) case study

- XYZ is a private equity 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.

- Objective : Provide actionable insights to help XYZ firm in identifying the right company for making investment.

The analysis has been divided into four parts:

- Data Understanding

- Forecasting profit and number of rides for each cab type

- Finding the most profitable Cab company

- Recommendations for investment

Data Exploration

- 16 Features
- Timeframe of the data: 2016-01-31 to 2018-12-31
- Total data points :359,392

Cab_Data.csv Customer_ID.csv Transaction_ID.csv City.csv USholiday.csv

Final cab data

Assumptions:

- Outliers are present in Price_Charged feature but due to unavailability of trip duration details ,we are not treating this as outlier.

- Profit of rides are calculated keeping other factors constant and only Price_Charged and Cost_of_Trip features used to calculate profit.

- Users feature of city dataset is treated as number of cab users in the city. we have assumed that this can be other cab users as well(including Yellow and Pink cab)
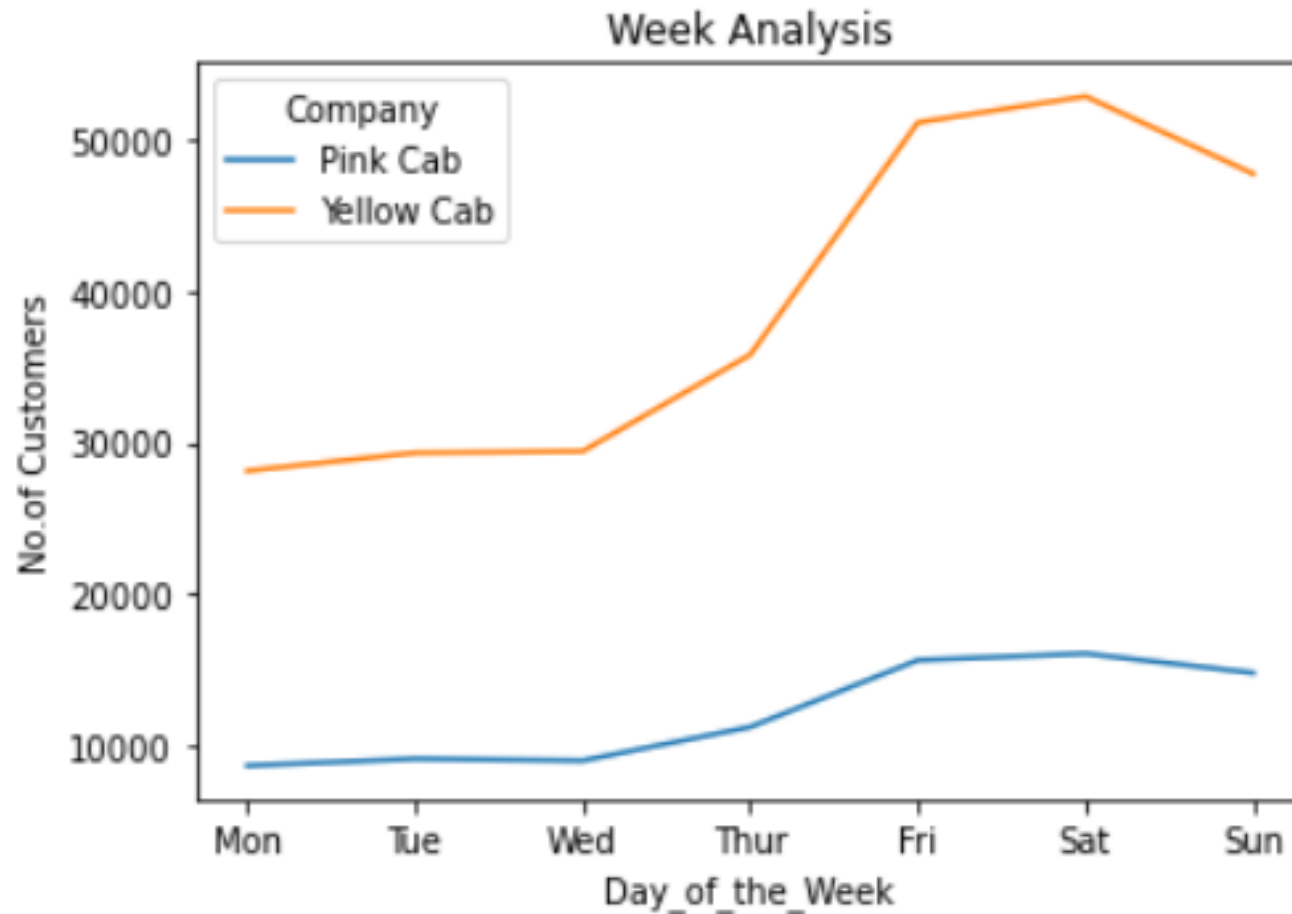
Company Analysis
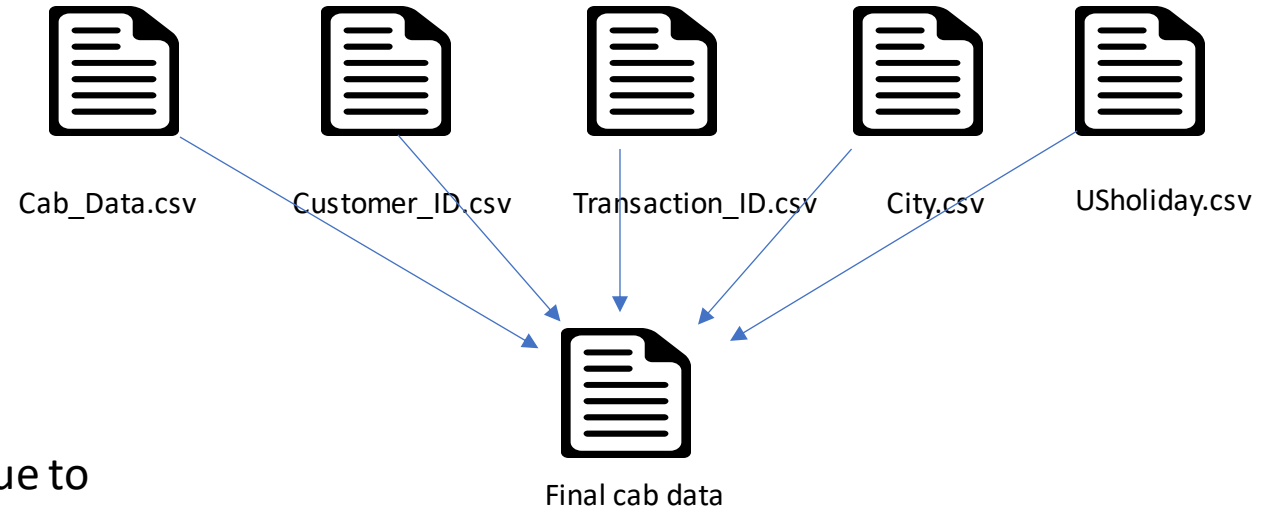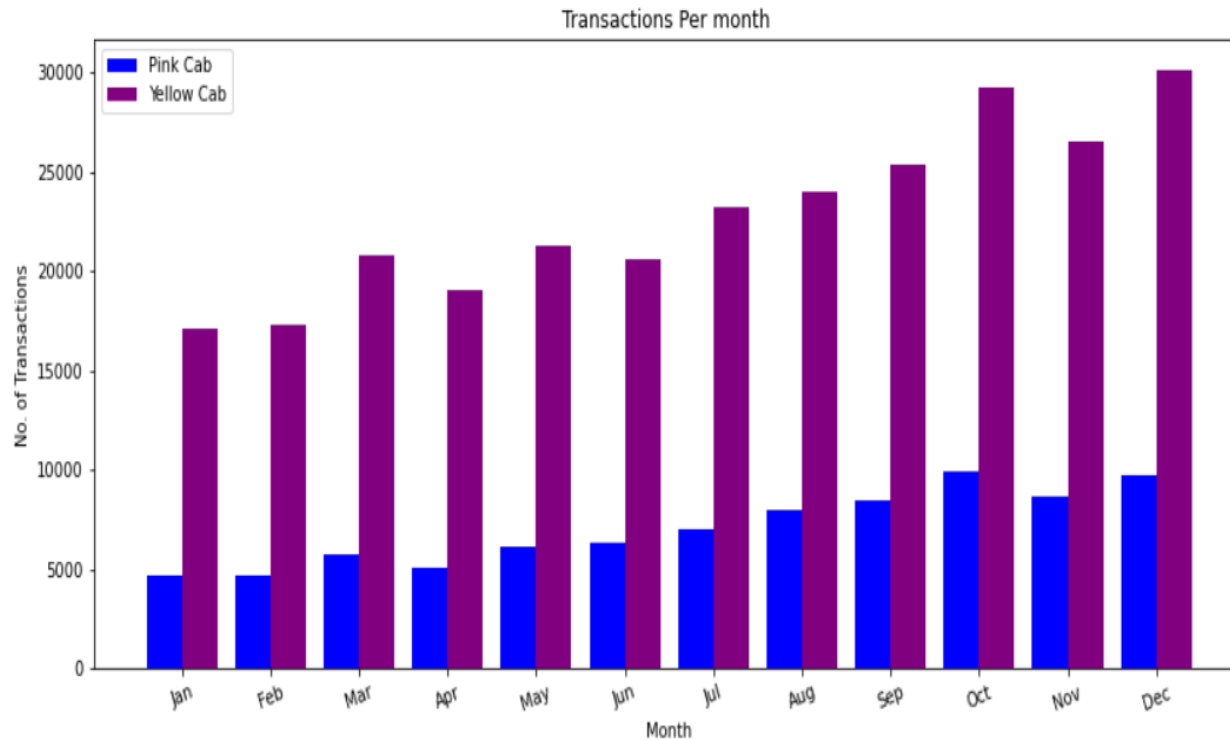

Overall Number Of Customers
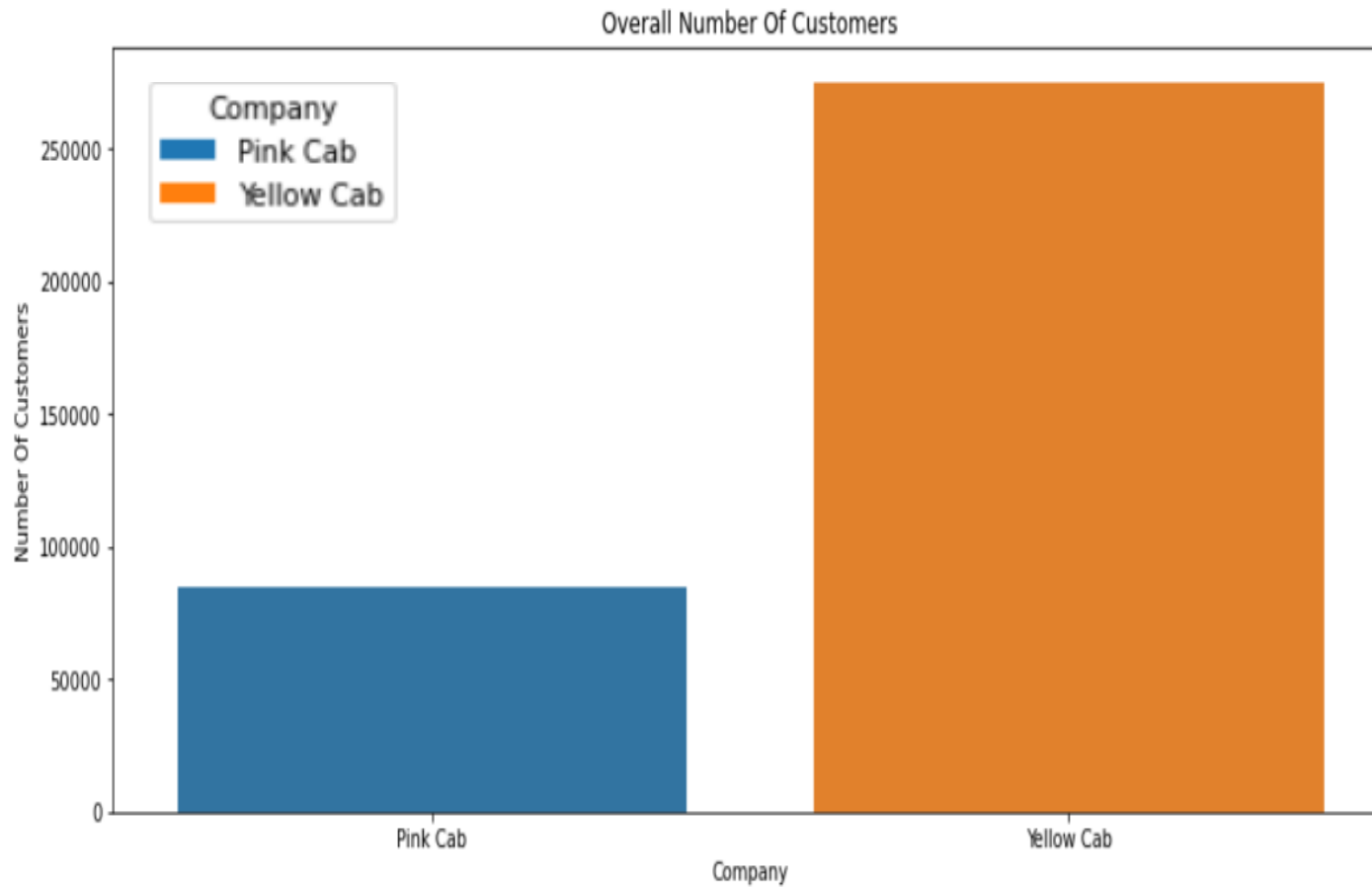
In Company Analysis, we observed that yellow cab company is having maximum number of customers when compared to pink cab company

Weekly Analysis

During Friday and Saturday yellow cab is having maximum rides with maximum number of customers

Monthly and Yearly Analysis

Transactions Per month
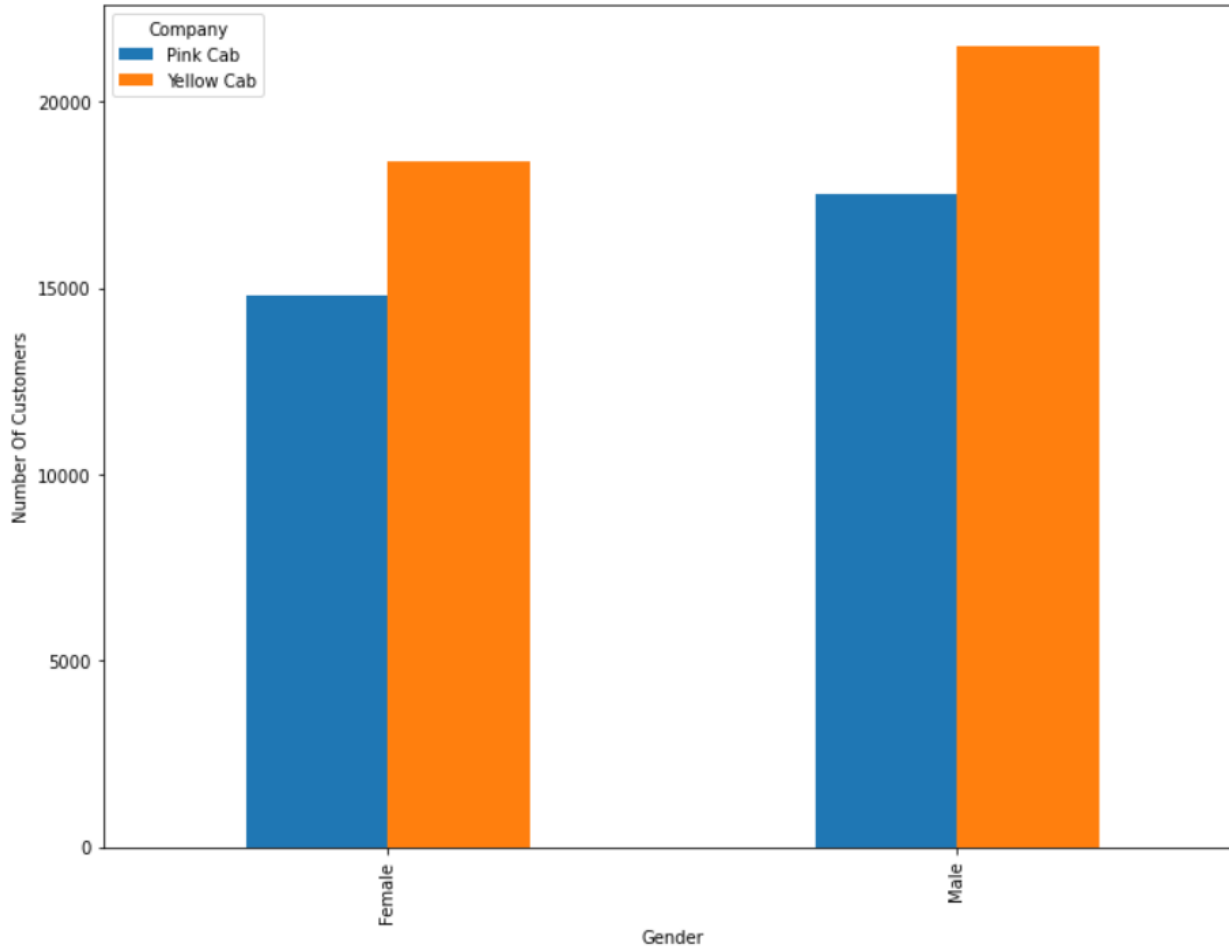

Yearly Customer distribution

In monthly analysis October, November and December are the holiday months. When comparing two cab companies, we observed that yellow cab is gaving maximum no.of transactions
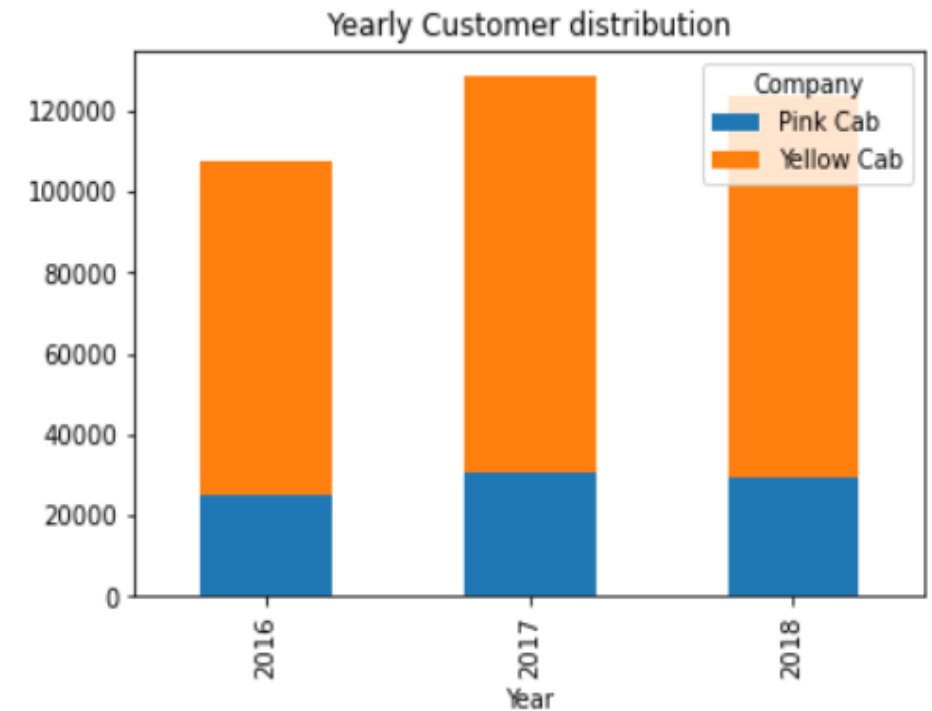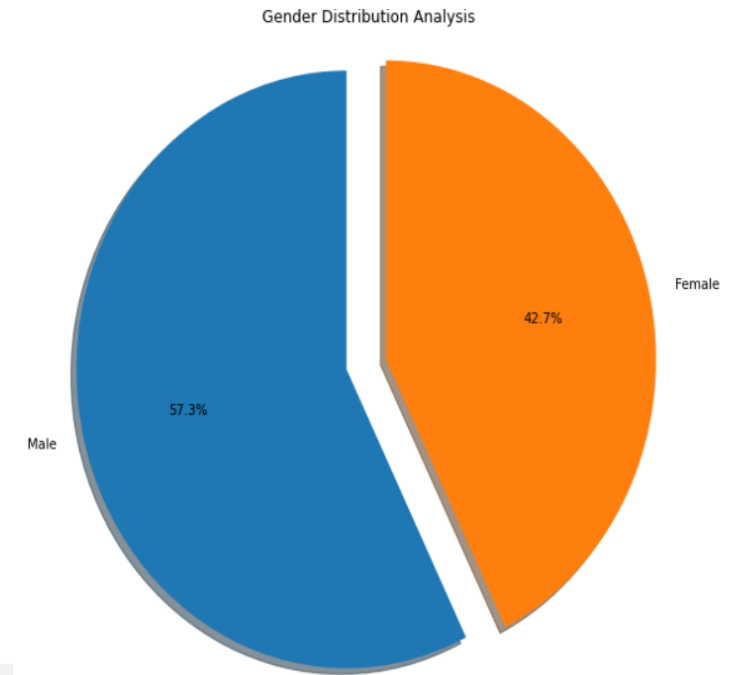
Across the three years yellow cab has maxmium number of customers
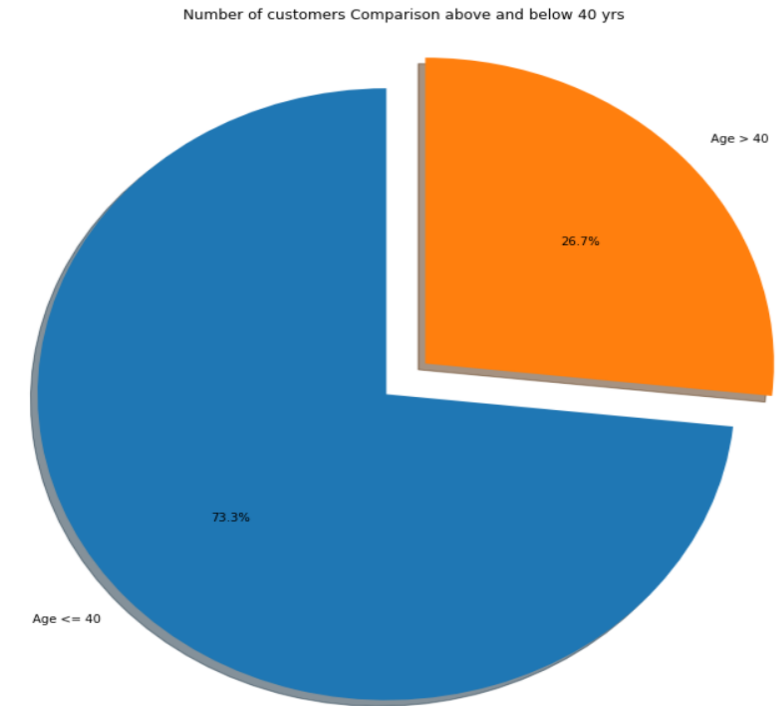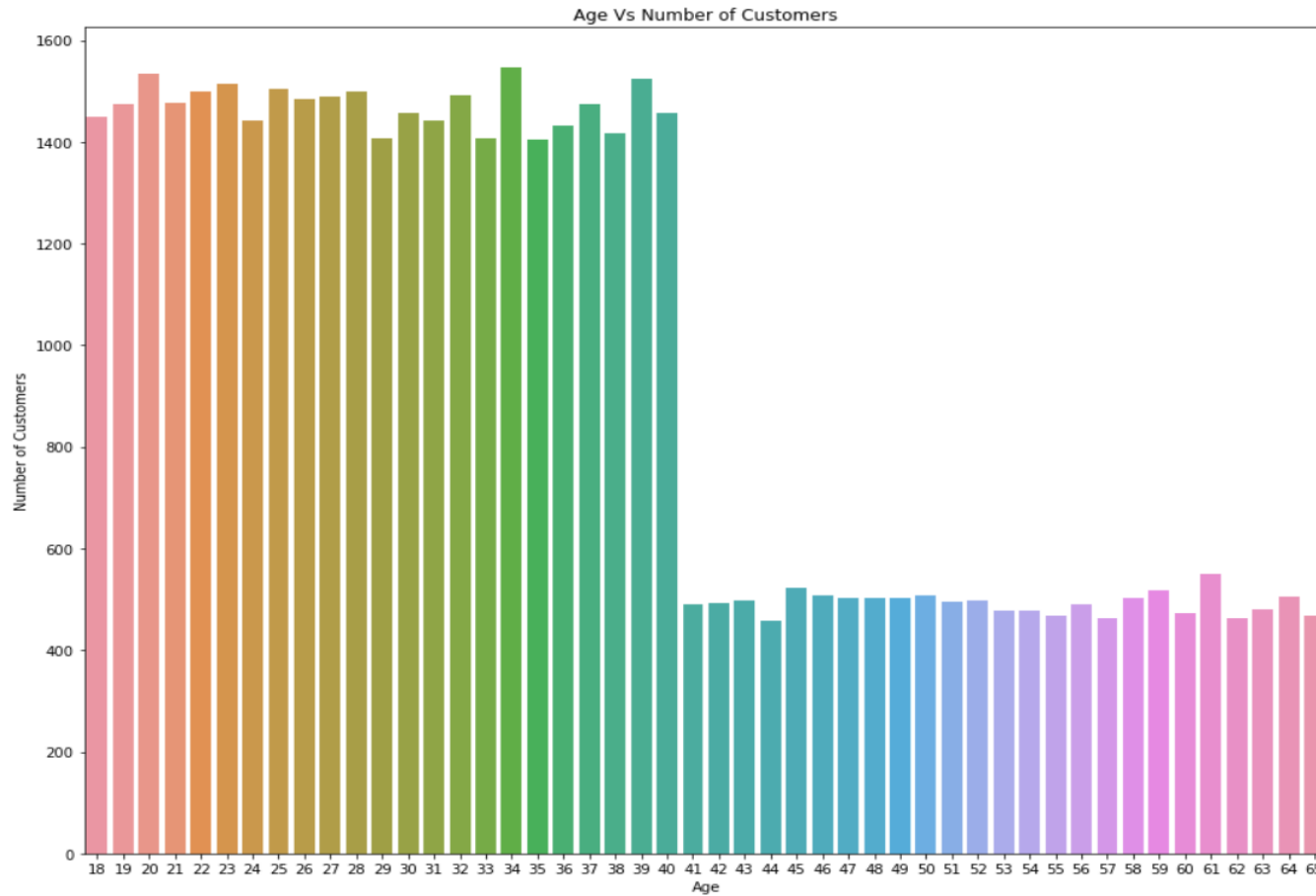
Gender Analysis For Two Cab Companies

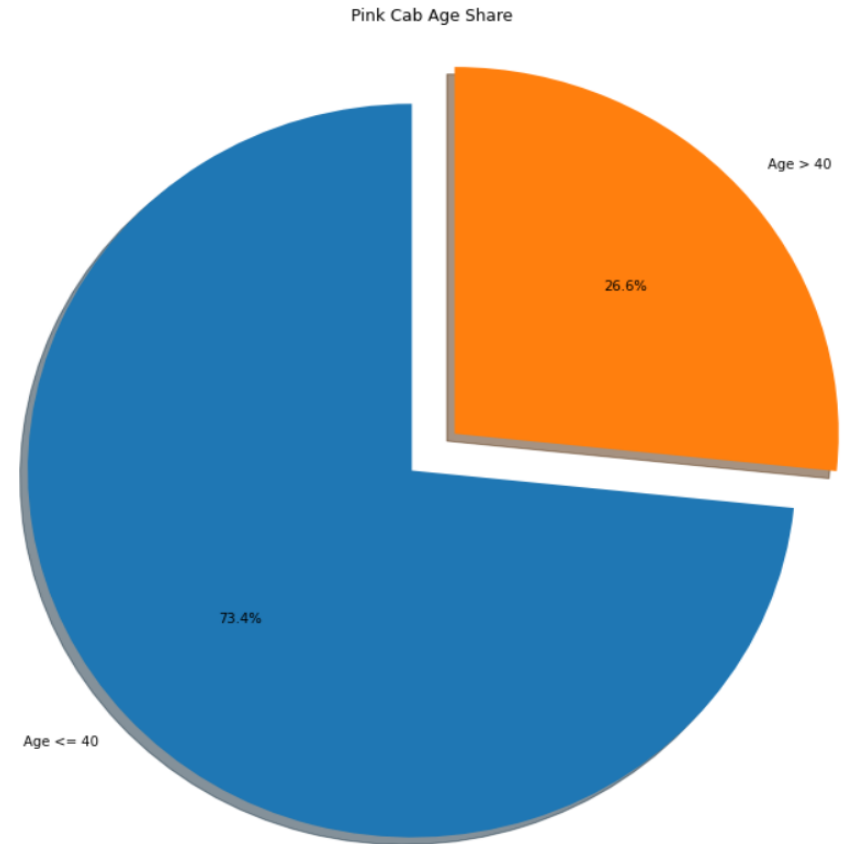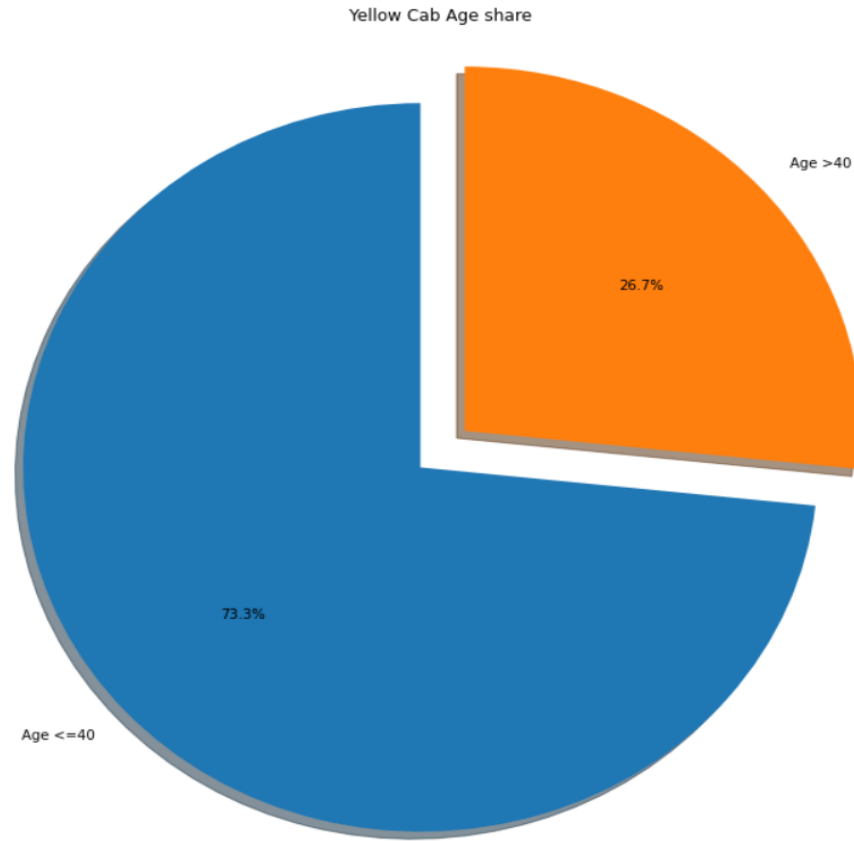| Company	Gender	nunique
Pink Cab	Female	14819
	Male	17511
Yellow Cab	Female	18394
	Male	21502

Gender Distribution Analysis

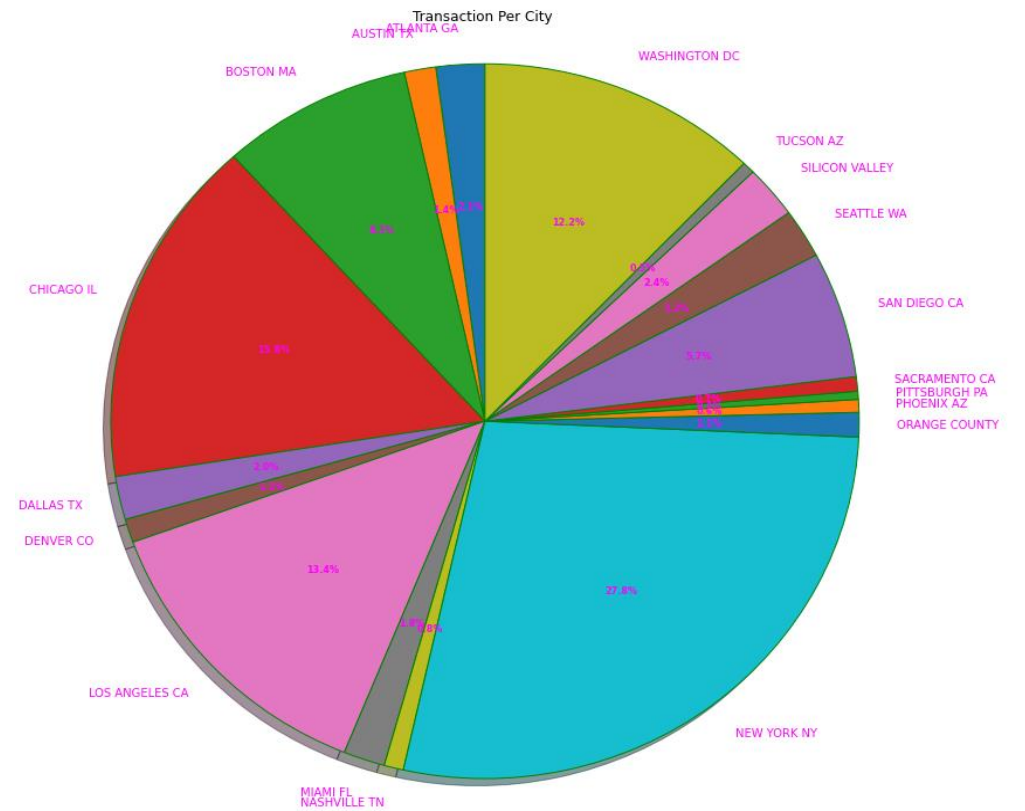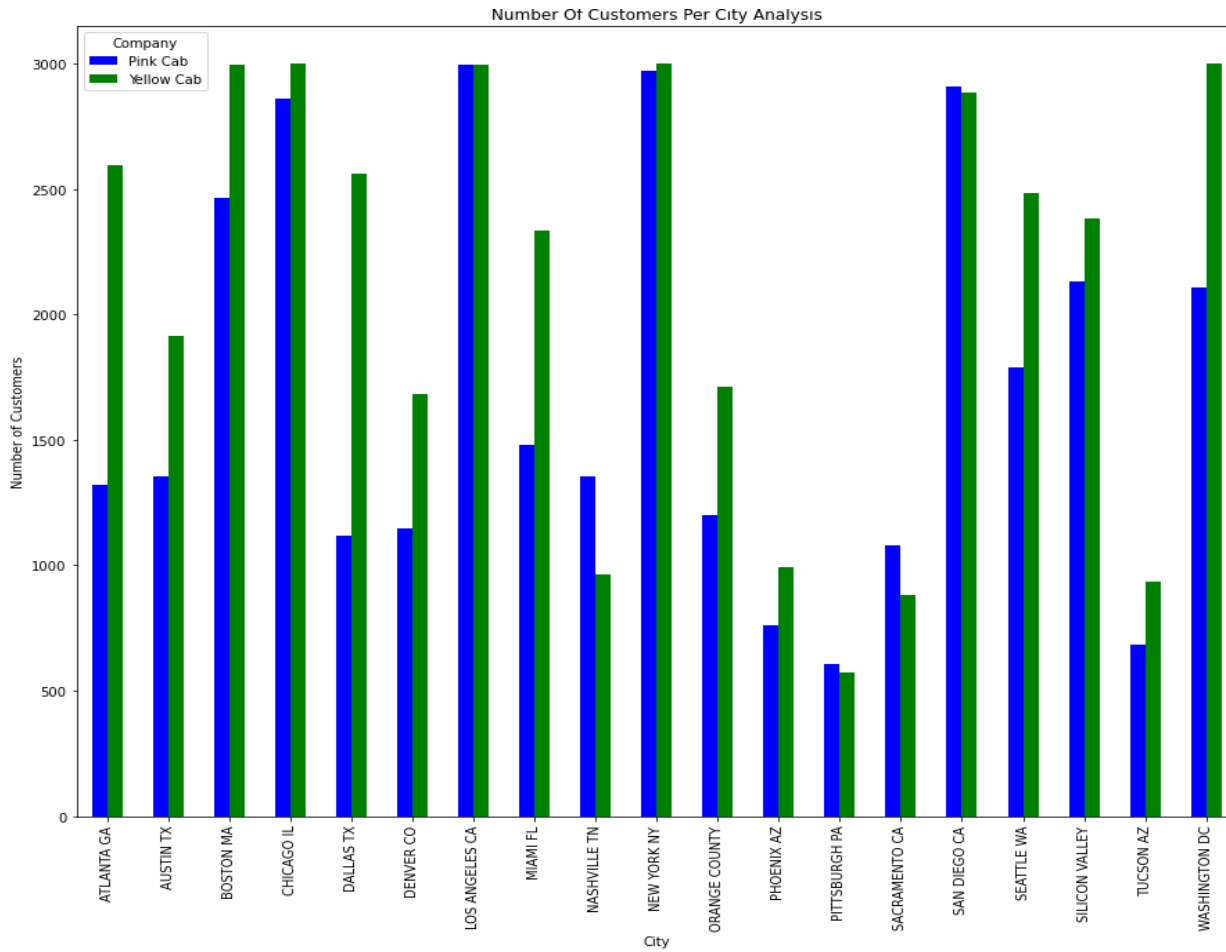57.3% customers are males travelling
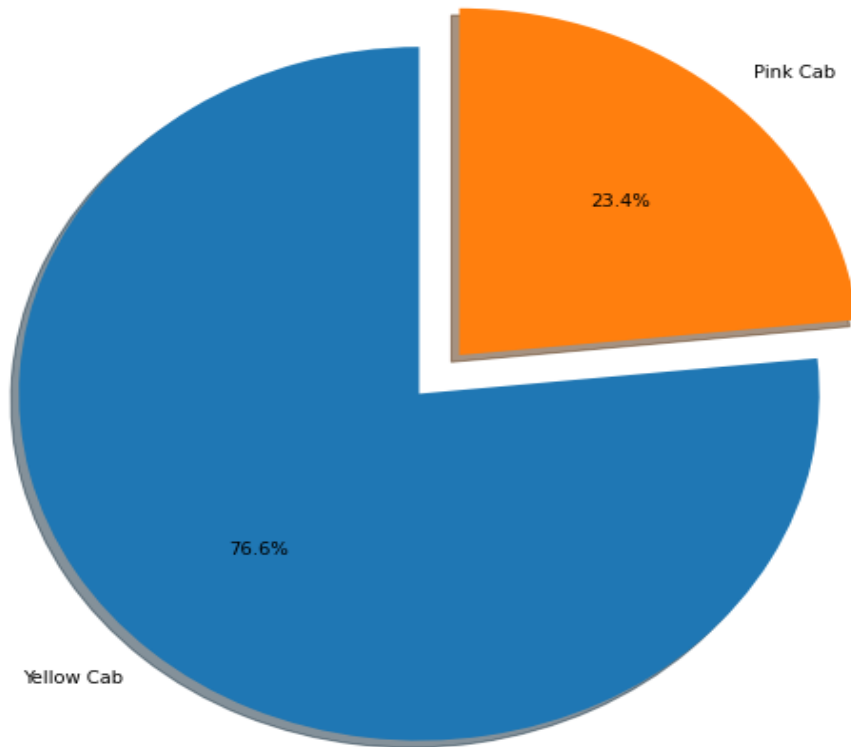
Age and Customer Based Analysis

Age and Customer Based Analysis

City and Customer Based Analysis

Customer Share Analysis For Three Years

Customers share in 2016

Pink Cab

23.4%

Yellow Cab

76.6%

Customers share in 2017

Pink Cab

23.6%

Yellow Cab

76.4%

Customer Share Analysis For Three Years

Customers share in 2018
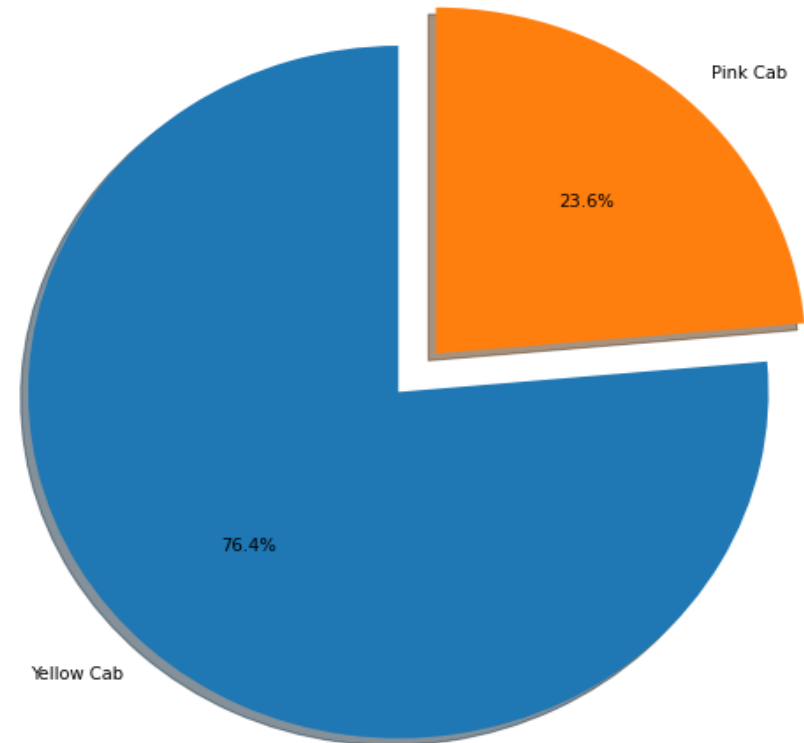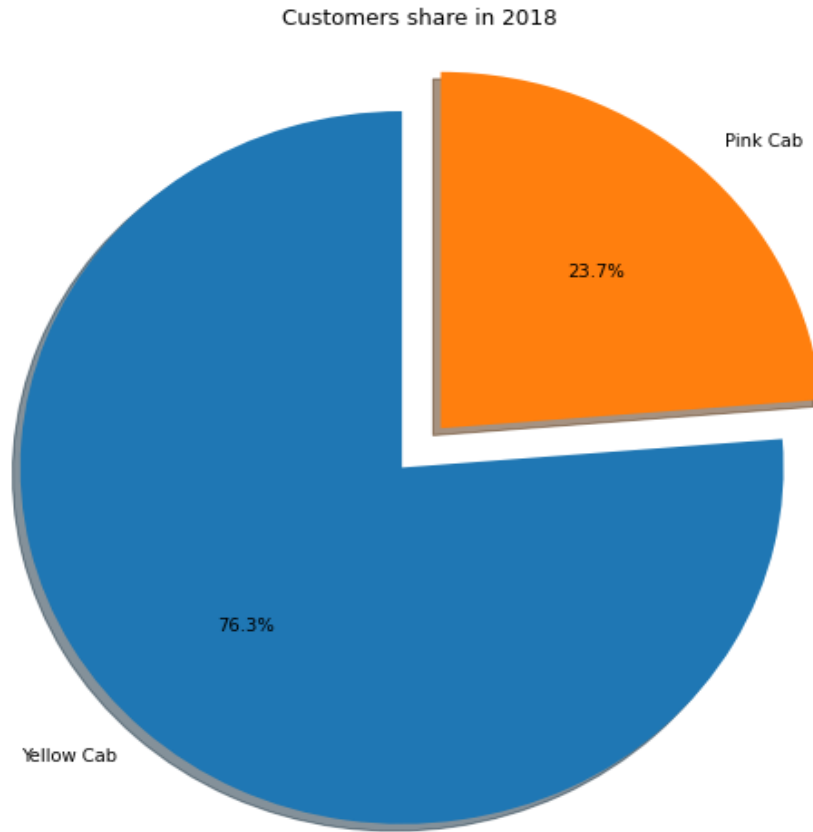
Company	Year	Gender	
Pink Cab	2016	Female	10873
		Male	14207
	2017	Female	13475
		Male	16846
	2018	Female	13132
		Male	16178
Yellow Cab	2016	Female	33861
		Male	48378
	2017	Female	41785
		Male	56404
	2018	Female	40354
		Male	53899

when compared to three years male customers of yellow cab is having maximum share

Margin Distribution Analysis For Three Years

Margin distribution across the three Years
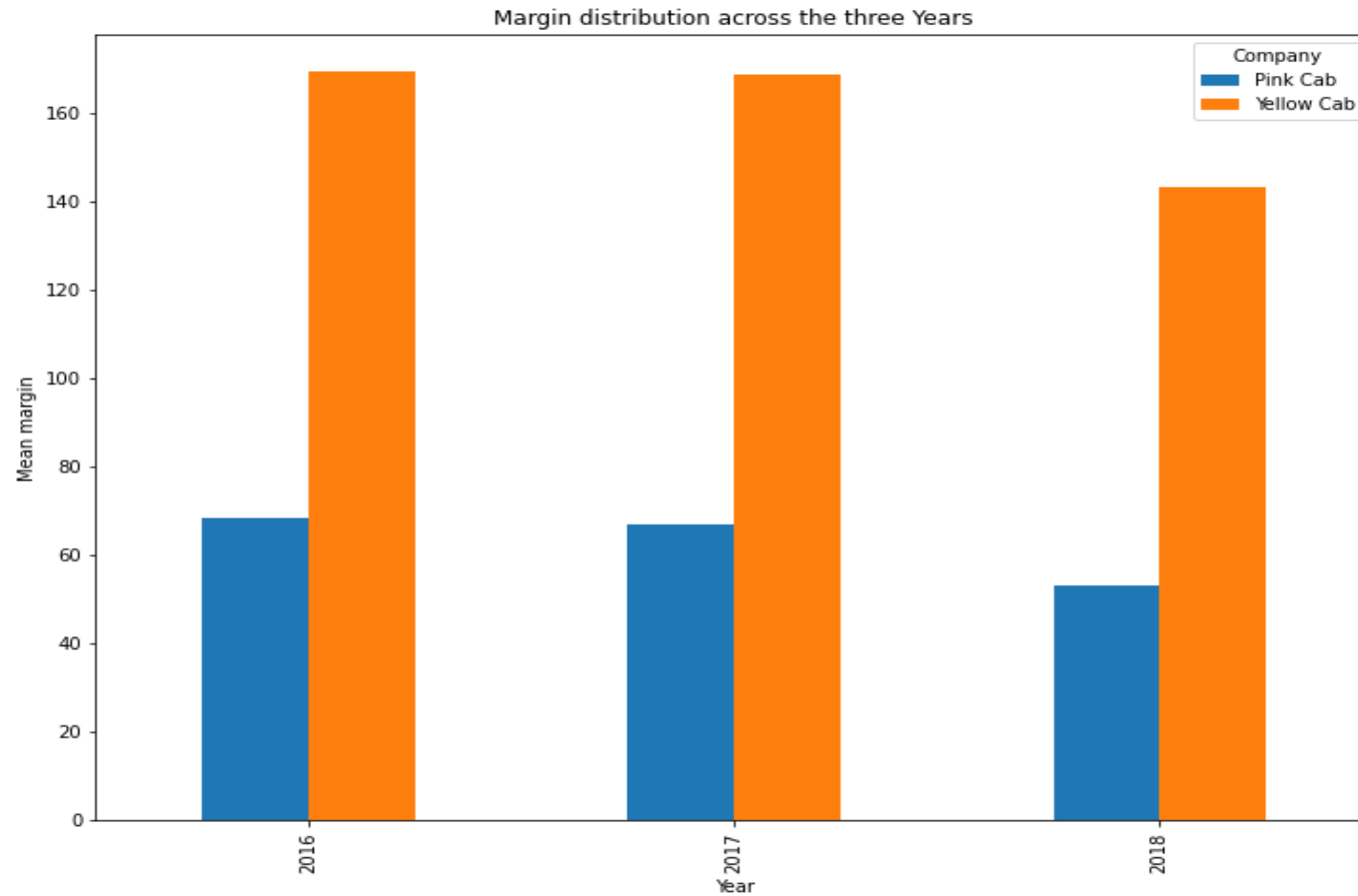
Yellow cab is having the maximum Profit compared to Pink Cab across the three years

Margin Distribution Analysis

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Gender  Company
Female  Pink Cab       62.180701
        Yellow Cab    156.305325
Male    Pink Cab       63.026310
        Yellow Cab    163.150948
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Yellow cab is having maximum margin distribution

|	KM_Travelled	Price_Charged	Cost_of_Trip	Month	Year	Age	Margins
KM_Travelled	1.000000	0.835753	0.981848	0.001033	-0.001072	-0.000369	0.462768
Price_Charged	0.835753	1.000000	0.859812	-0.036288	-0.036409	-0.003084	0.864154
Cost_of_Trip	0.981848	0.859812	1.000000	-0.002720	-0.001773	-0.000189	0.486056
Month	0.001033	-0.036288	-0.002720	1.000000	-0.007440	-0.000095	-0.059428
Year	-0.001072	-0.036409	-0.001773	-0.007440	1.000000	-0.000579	-0.060567
Age	-0.000369	-0.003084	-0.000189	-0.000095	-0.000579	1.000000	-0.005093
Margins	0.462768	0.864154	0.486056	-0.059428	-0.060567	-0.005093	1.000000

KM_Travelled Analysis
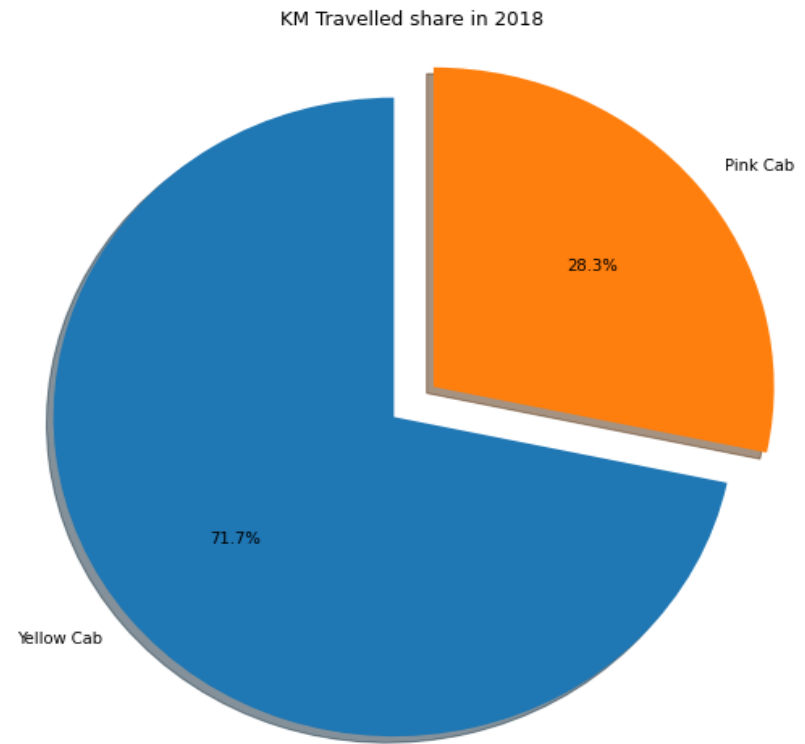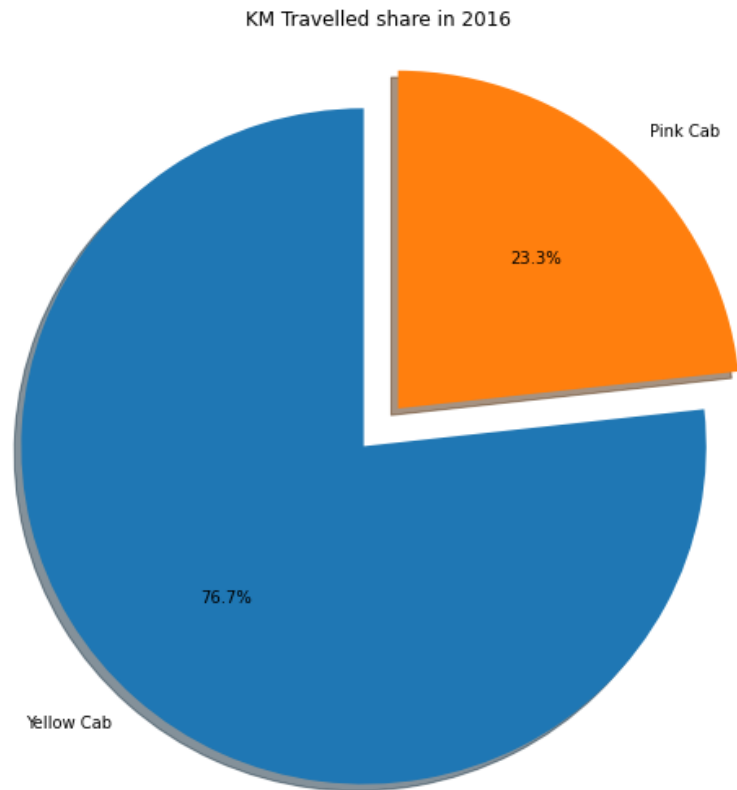
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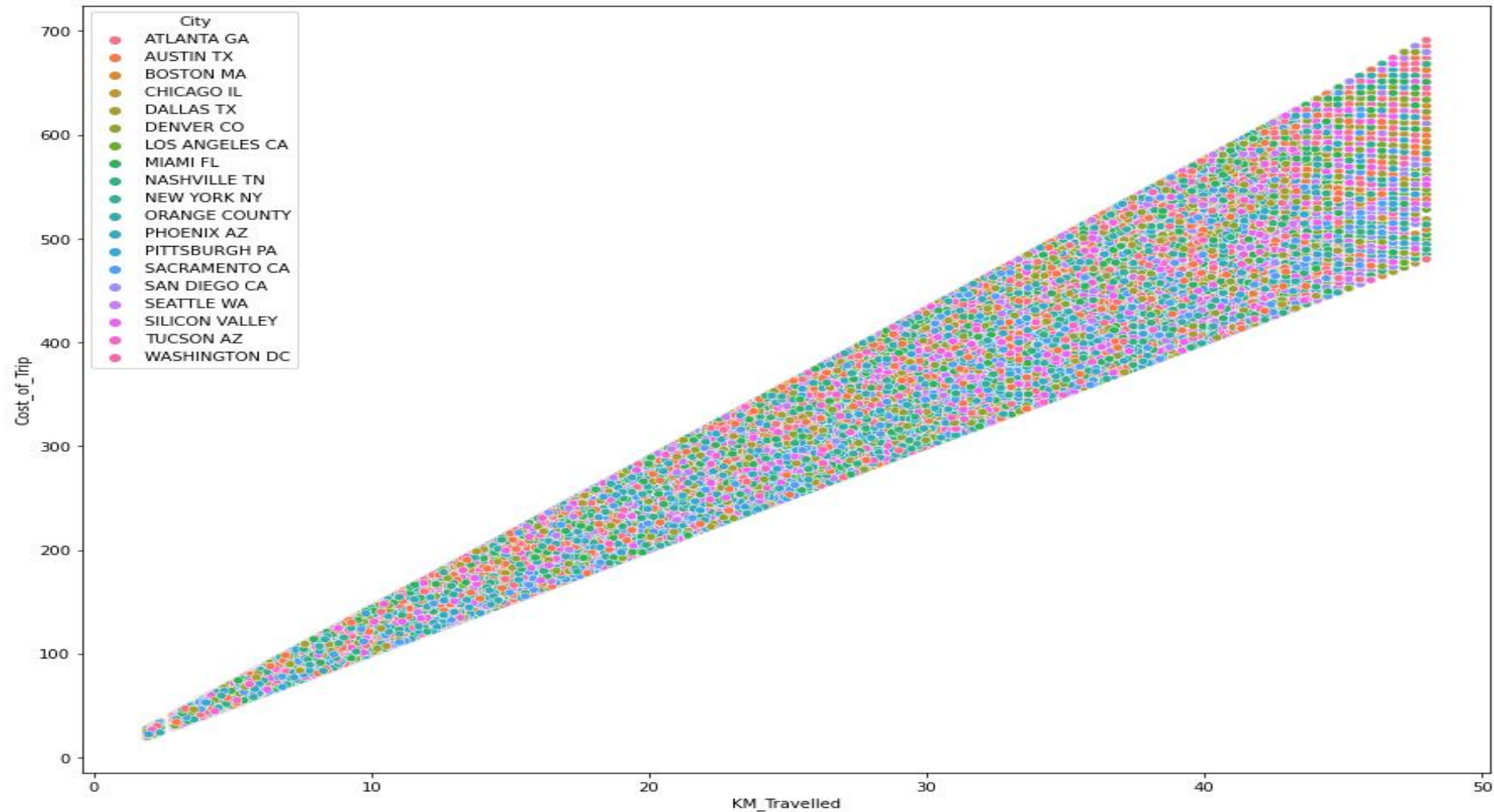
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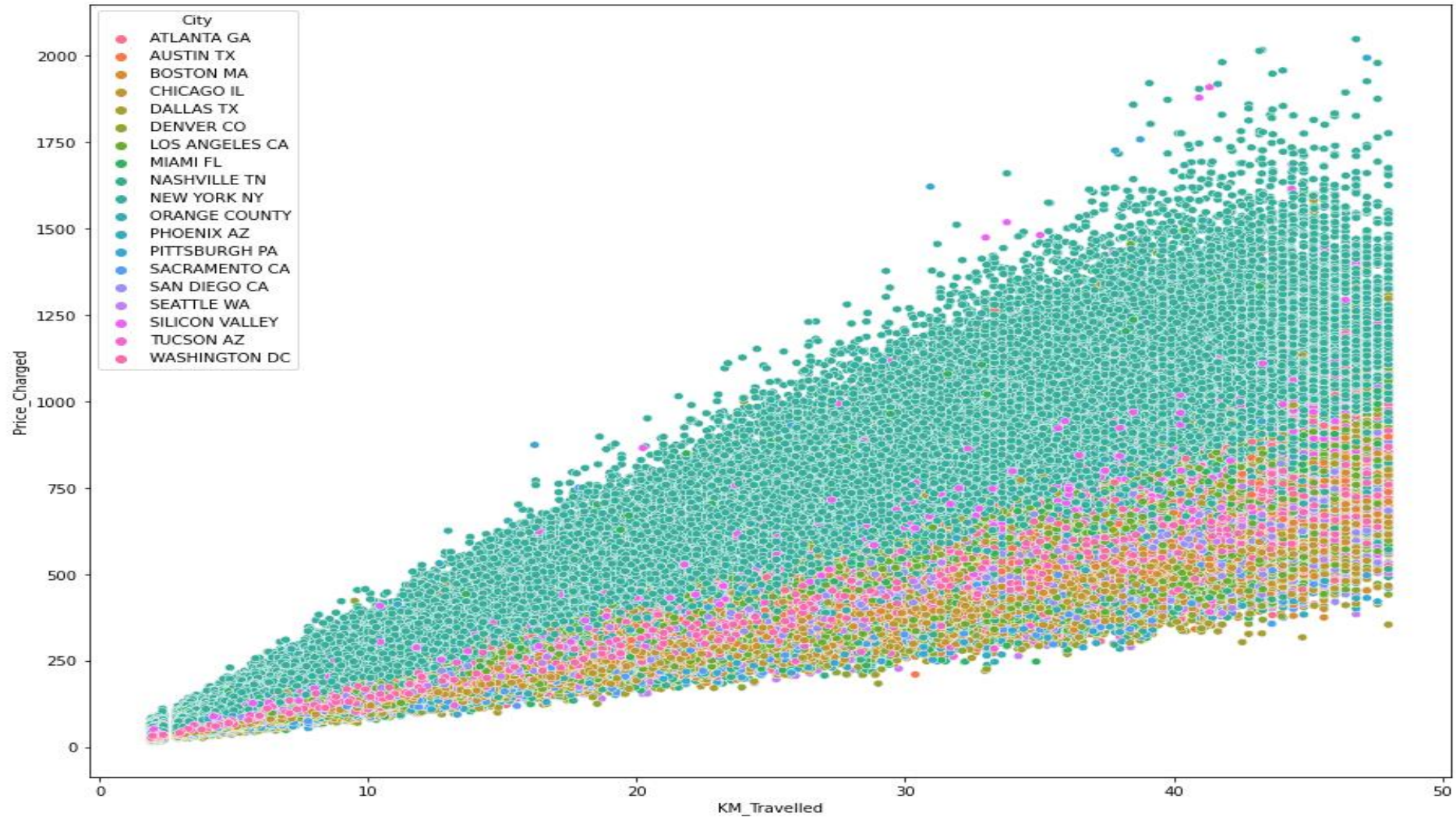
Recommendations

We have evaluated both the cab companies on following points and found Yellow cab better than Pink cab:

- **Customer Reach :** Yellow cab has higher customer reach in all the 20 cities. Yellow cab Company has more users in populated cities such as New York City.

- **Customer Retention:** Yellow cab has a very high customer retainability rate compared to Pink Cab

- **Age wise Reach :** Most of the young aged customers prefer Yellow Cab. It is to be noted that the young aged customers are the biggest consumers in this cab business.

- **Average Profit per KM:** Yellow cab's average profit per KM is almost three times the average profit per KM of the Pink cab.

- **Income wise Reach :**Both the cabs are very popular in high and medium income class but here also Yellow cab is performing better than Pink cab in offering their services to all the three income class group (low, medium and high)

- **Company Availability:** Most cab users travelled mostly in October, November and December and choose Yellow cab over Pink cab Company because they Yellow cab has 3times the number of Pink cab customers.

On the basis of above point , we will recommend Yellow cab for investment.

Thank You