



Data Glacier

Your Deep Learning Partner

GM2 Case Study

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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 by analyzing market trends, customer behavior and financial performance.

The analysis will provide information about the following:

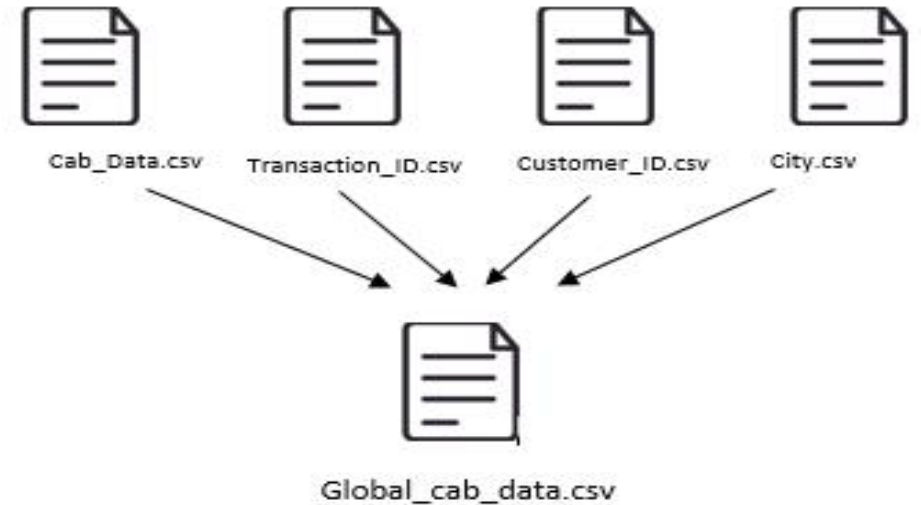
- Data Intake and Preliminary Processing
- Forecasting profit and number of rides for each cab type
- Finding the most profitable Cab company
- Recommendations for investment

DATA EXPLORATION

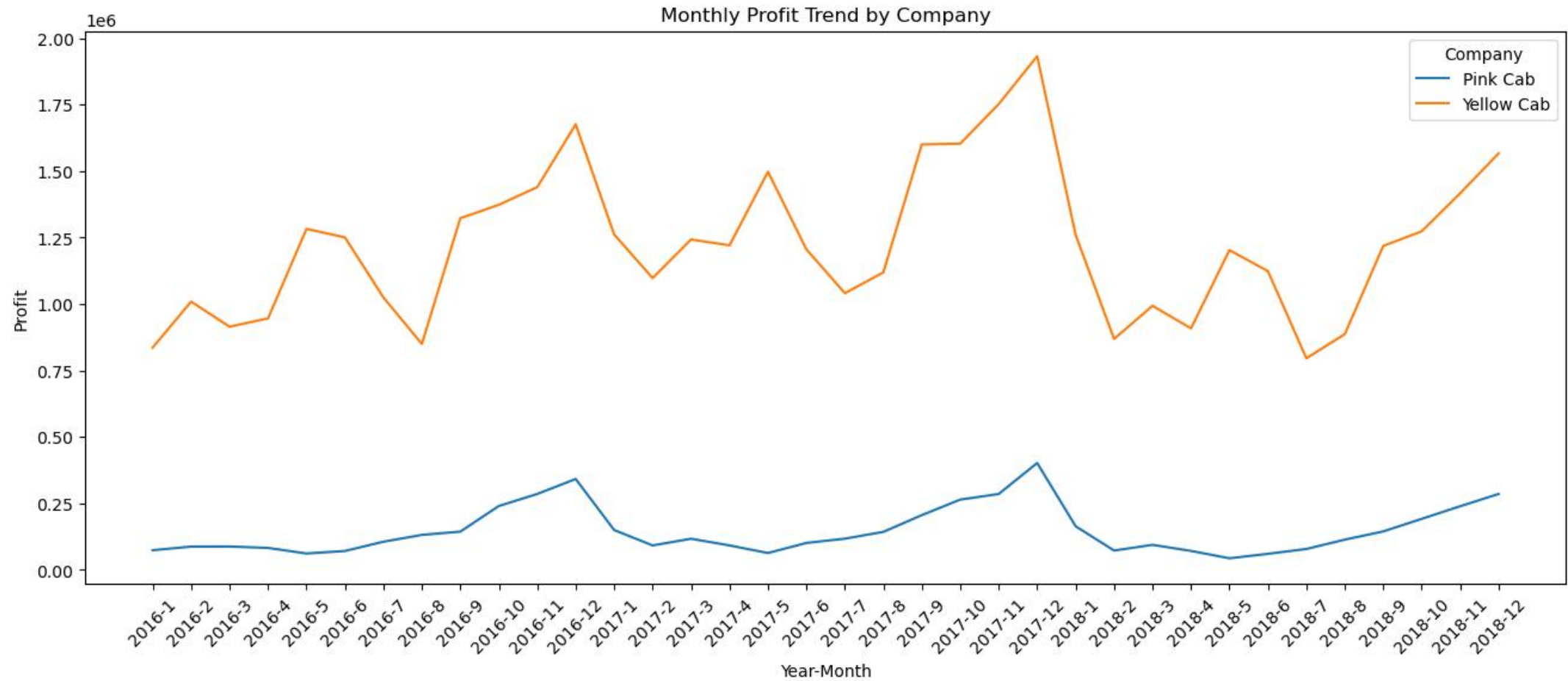
- 23 Features(including 9 derived features)
- Timeframe of the data: 2016-01-01 to 2018-12-31
- Total data points : 359,392

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)



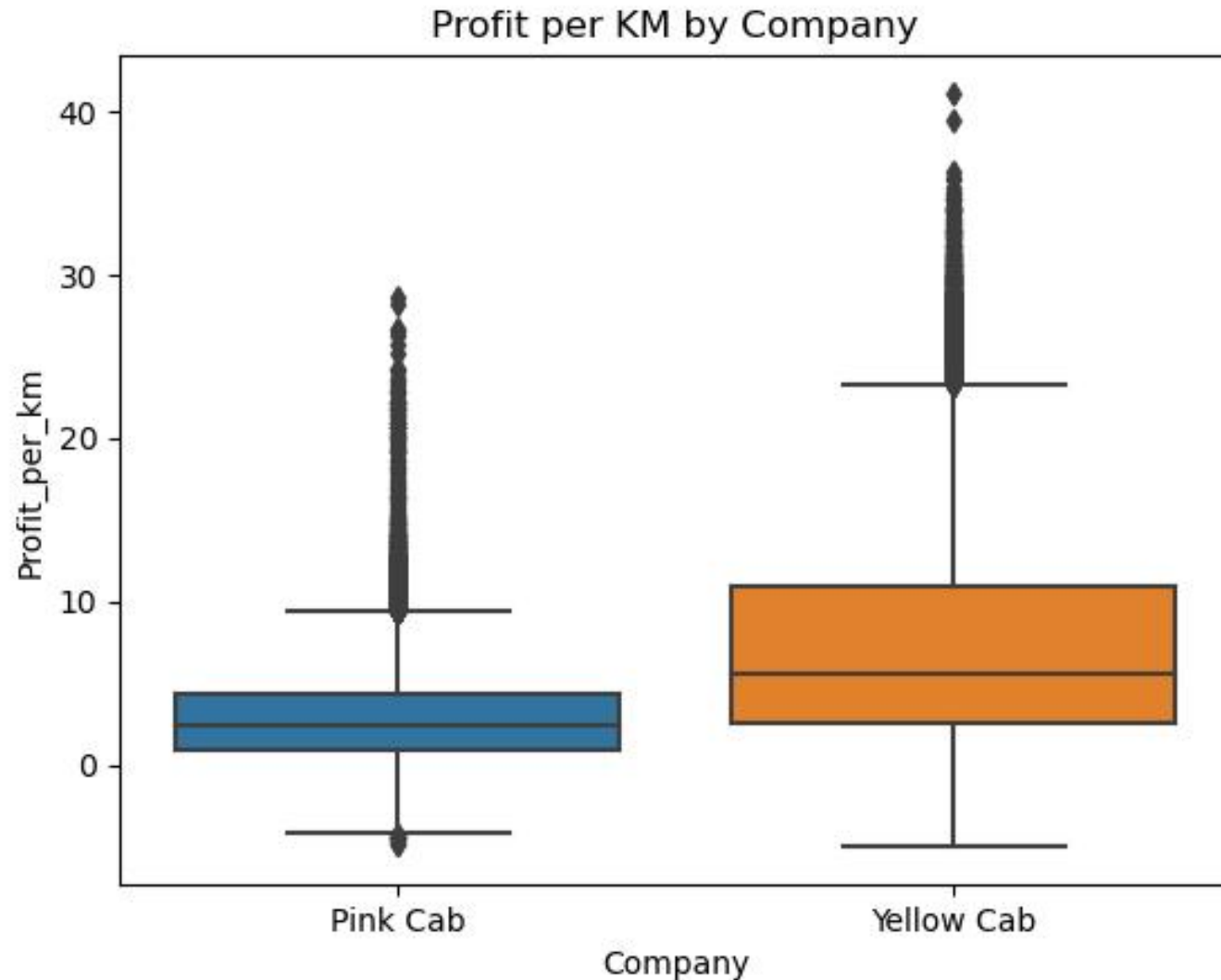
PROFIT ANALYSIS



PROFIT ANALYSIS

- Yellow Cab consistently earns 3–4x higher profits than Pink Cab.
- Most cab users take cab trips between October to December in each year and they are yellow cab users.
- Pink Cab profits are low and less stable.

PROFIT VS PER KM

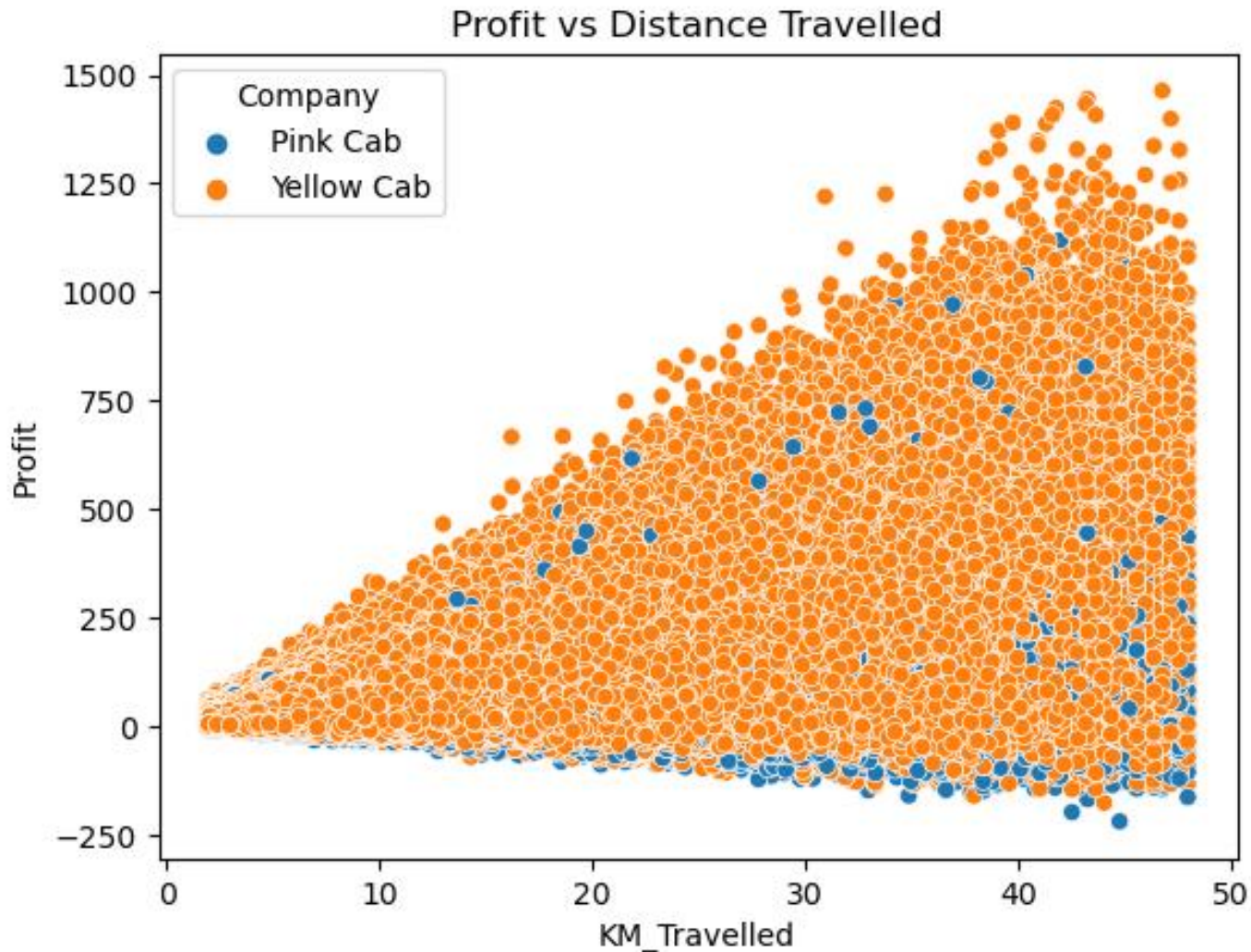


Yellow Cab earns significantly higher profit per kilometer than Pink Cab.

Median profit/km for Yellow Cab is nearly double that of Pink Cab.

Indicates better pricing strategy and cost efficiency.

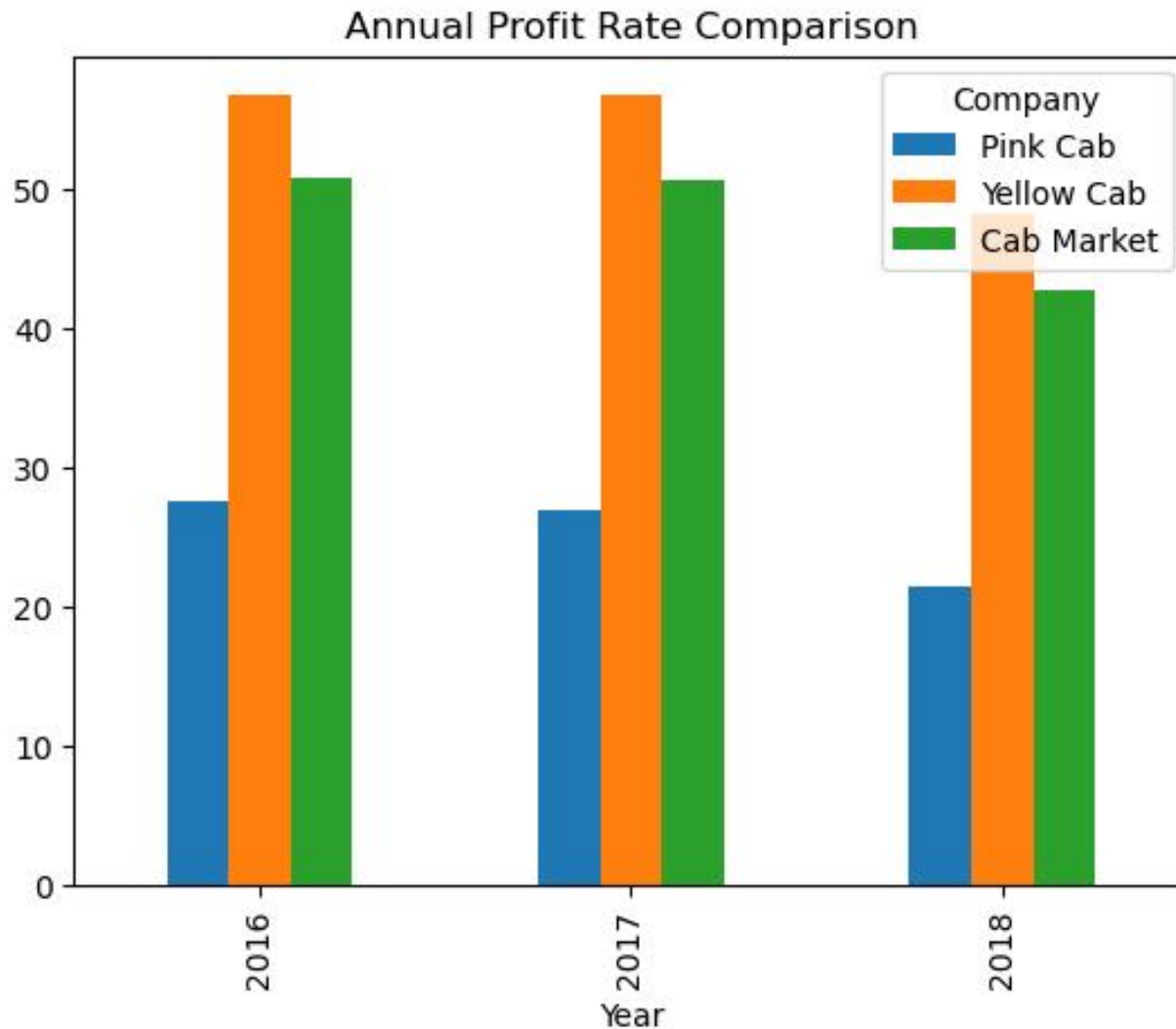
PROFIT VS DISTANCE



Profits generally rise as distance increases for both companies.

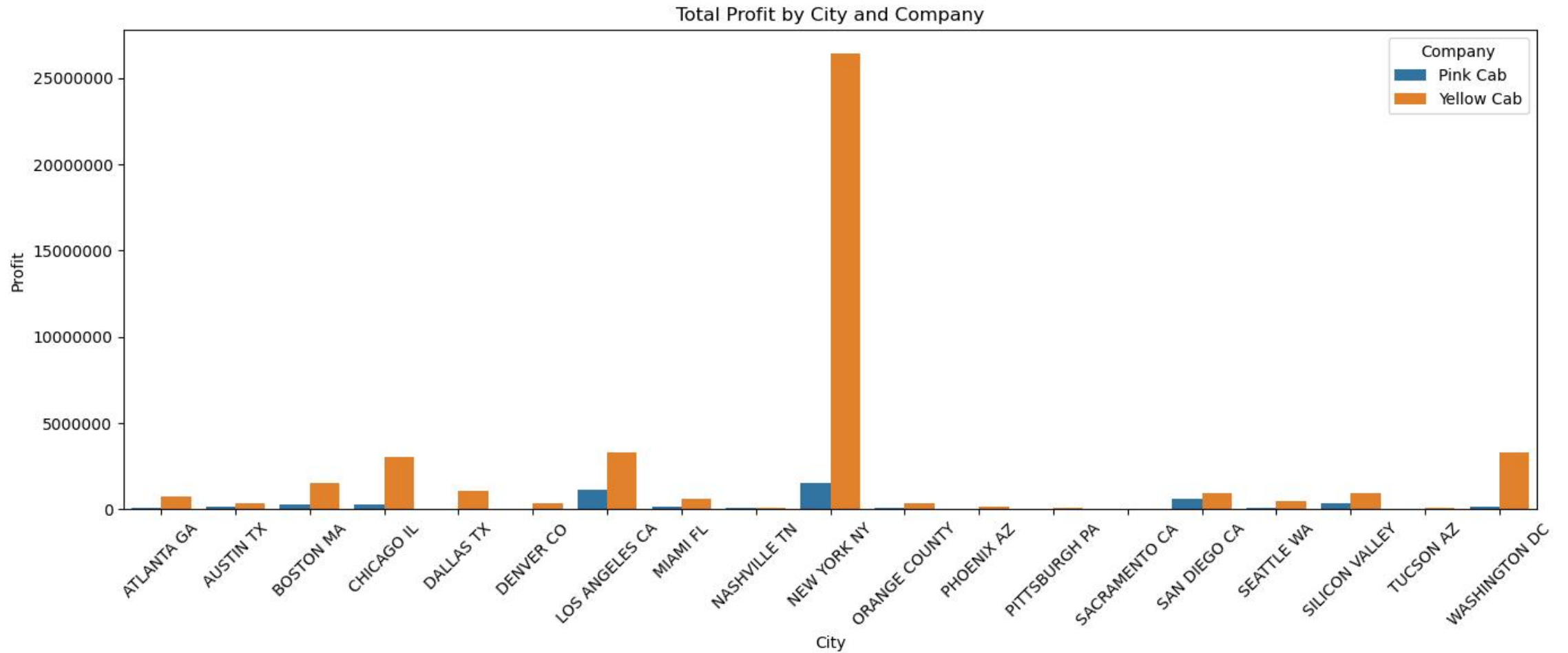
The higher number of orange dots indicates more recorded trips for Yellow Cab.

YEARLY PROFIT



Yellow cab company made 54% of profit while the Pink cab company has only 25% of the total profit made each year and has more users

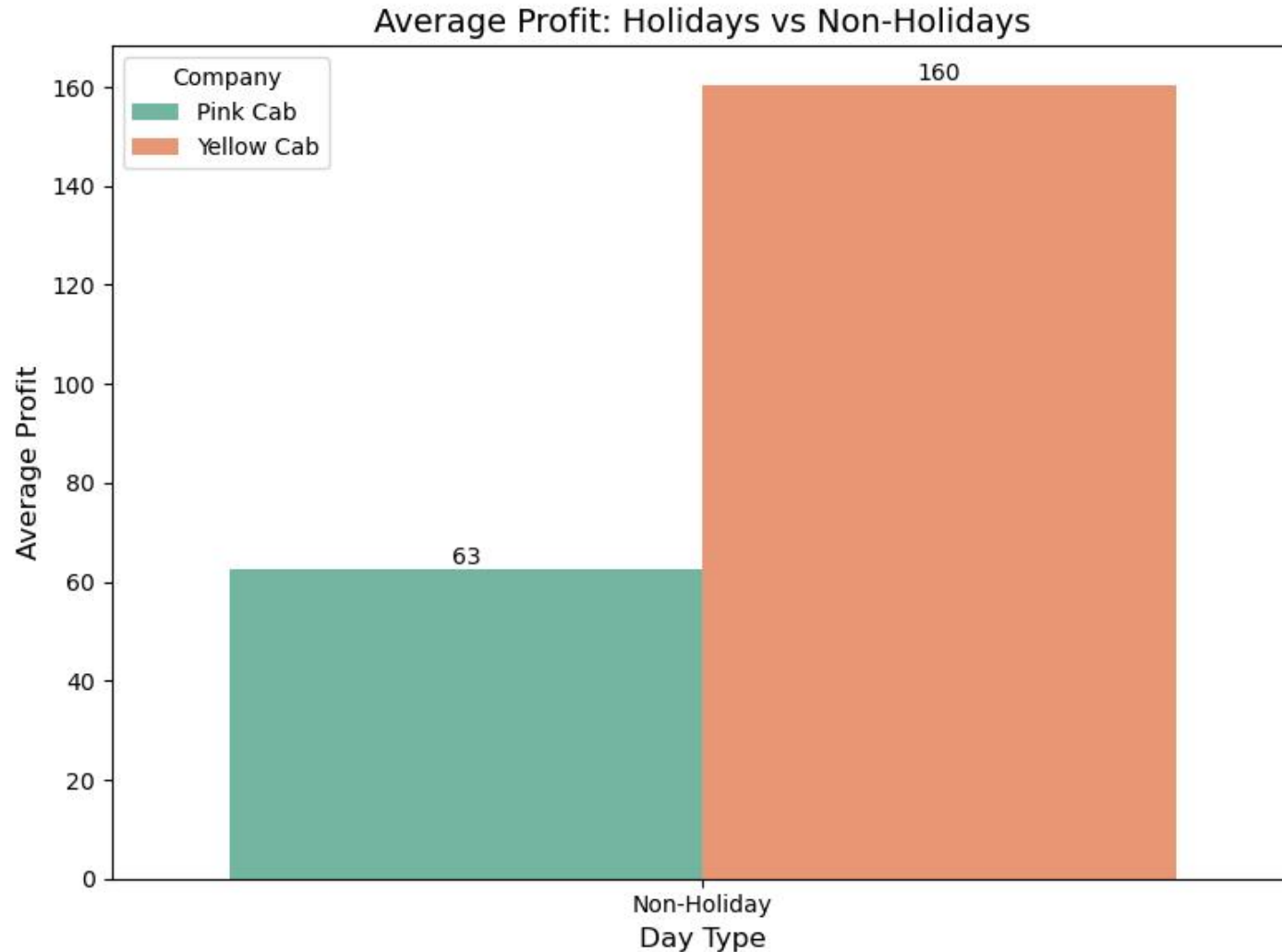
PROFIT VS CITY



PROFIT VS CITY

- Above slide shows profit comparison across cities for Pink Cab and Yellow Cab
- Yellow Cab leads in most cities, especially New York, NY
- High profits also in DC, Chicago, and LA
- Suggests stronger market presence for Yellow Cab

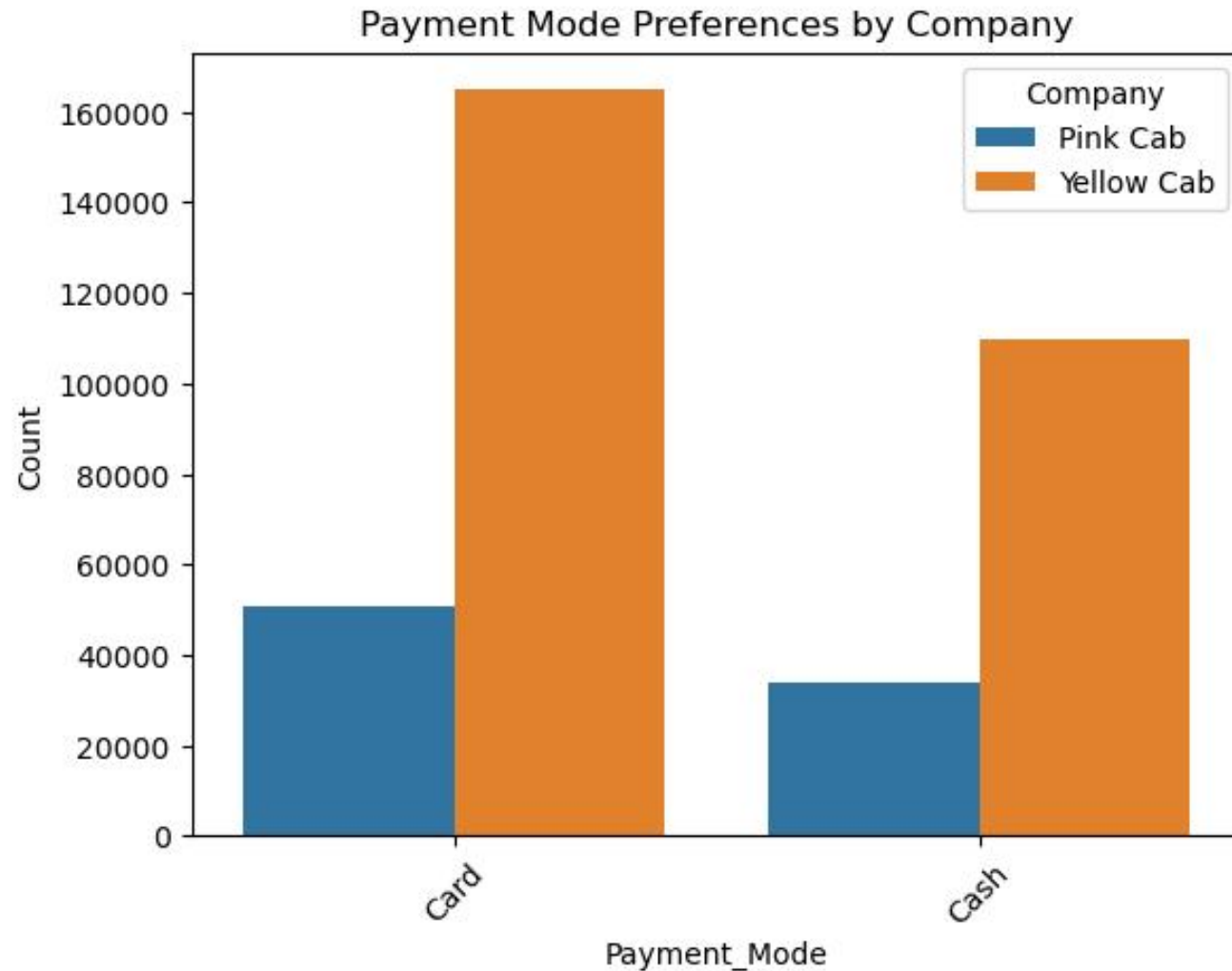
PROFIT VS HOLIDAYS



Yellow Cab earns an average of 160 per trip, significantly higher than Pink Cab's 63.

This confirms Yellow Cab's superior profitability on regular (non-holiday) days.

CUSTOMER SEGMENTATION(PAYMENT MODE)

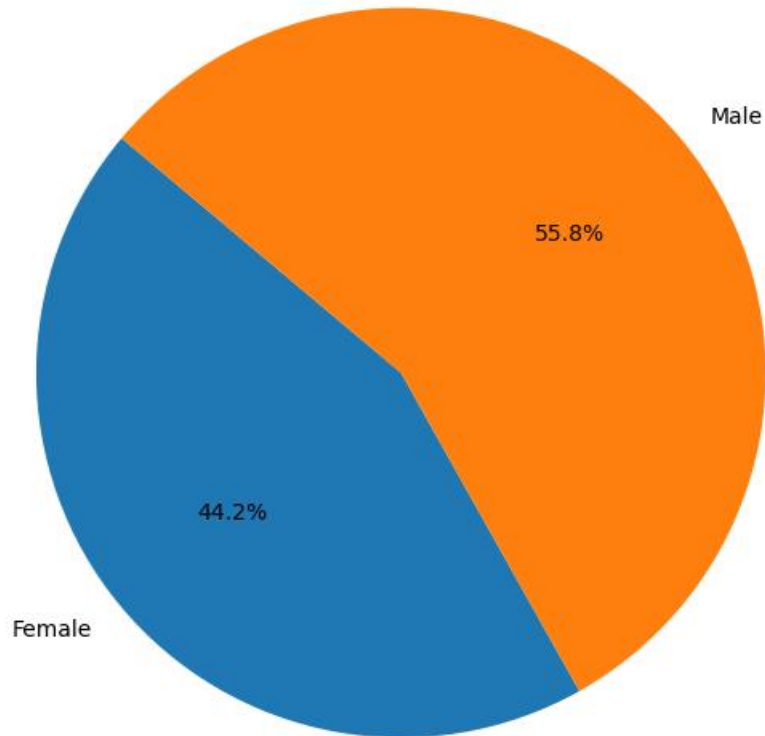


Most Yellow Cab users
prefer card payments

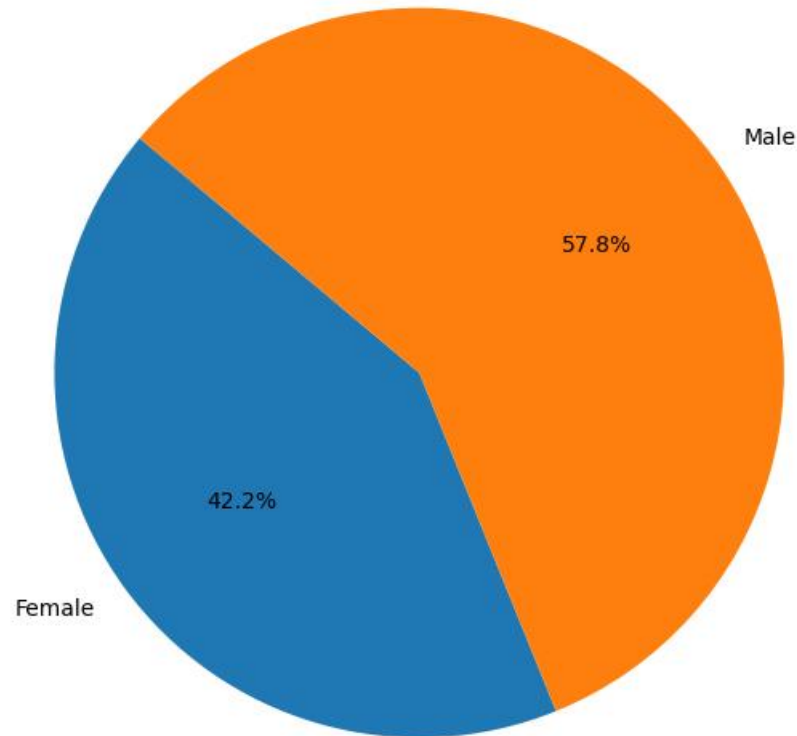
Pink Cab has a more
balanced split between
card and cash

CUSTOMER SEGMENTATION(GENDER)

Pink Cab - Gender Distribution



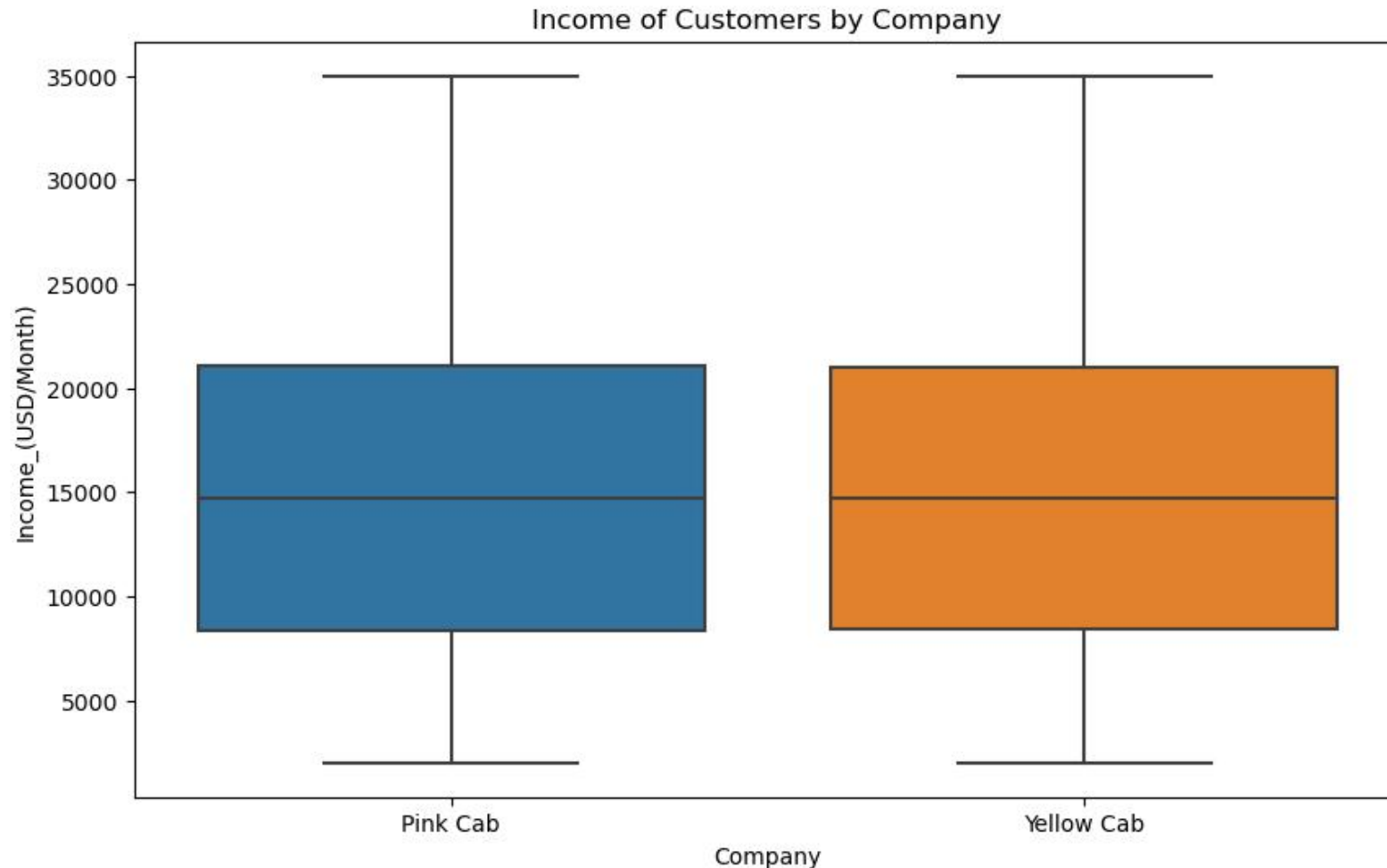
Yellow Cab - Gender Distribution



Majority of users are male for both companies

Pink Cab has a slightly higher share of female users

CUSTOMER SEGMENTATION(INCOME)

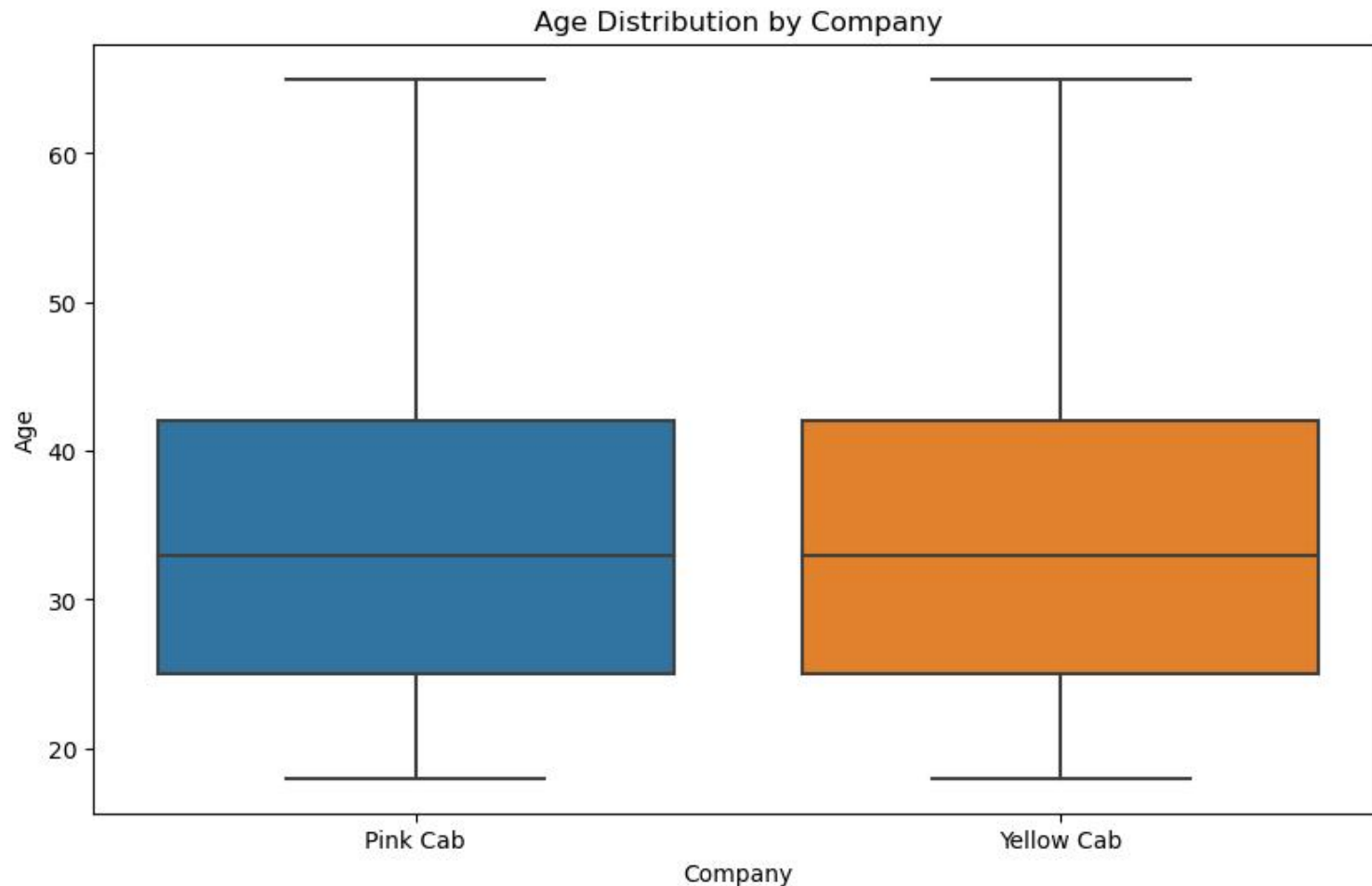


Pink Cab: Higher median income (15,000 USD) than Yellow Cab (12,500 USD)

Income range: 2,500 to 35,000 USD for both services

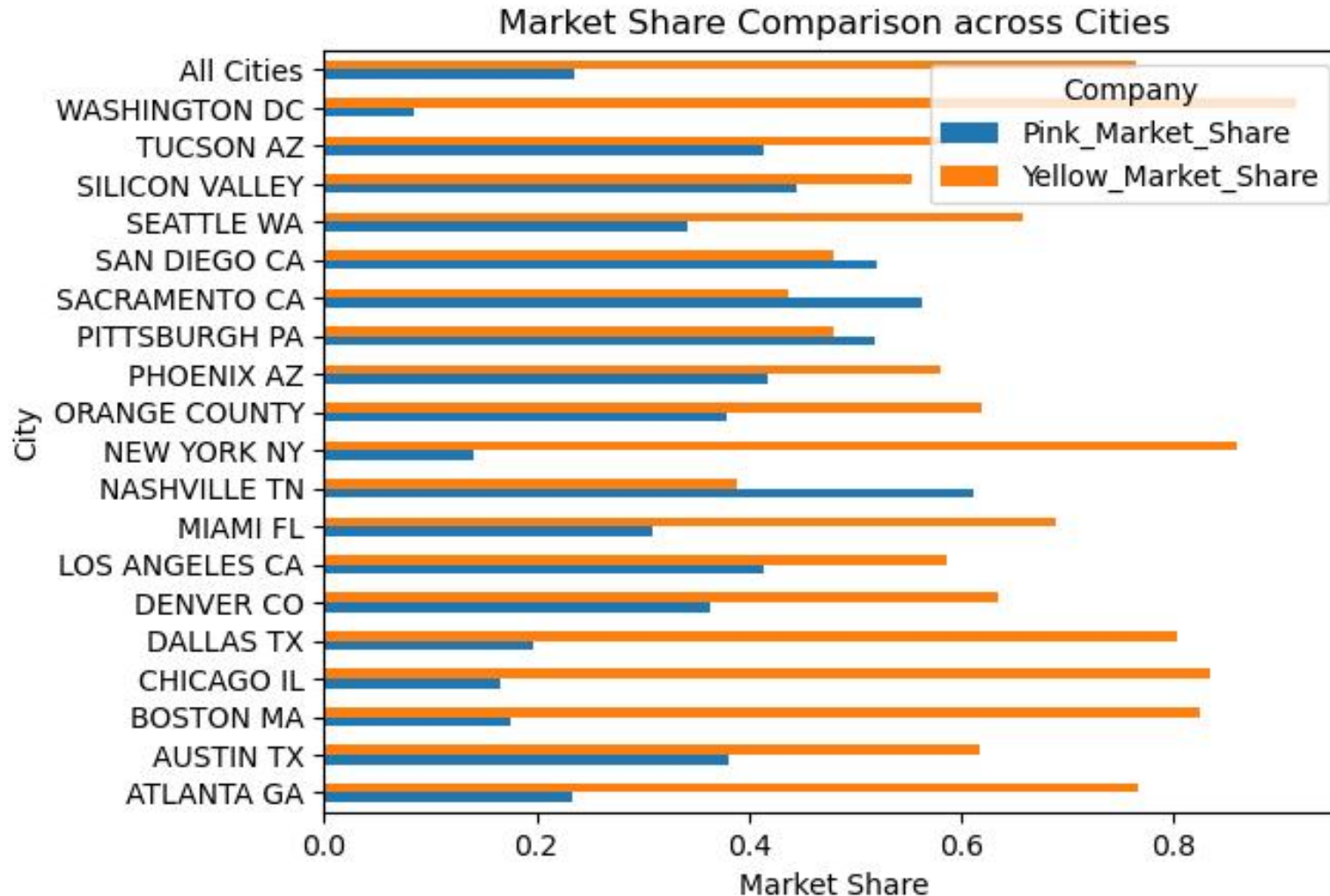
Insight: Pink Cab customers generally earn more, useful for market analysis

CUSTOMER SEGMENTATION(AGE)



Both companies serve customers mostly aged 25 to 45. Pink Cab has a higher median age. Pink Cab shows a wider age range. Suggests Pink Cab attracts slightly older and more diverse age groups

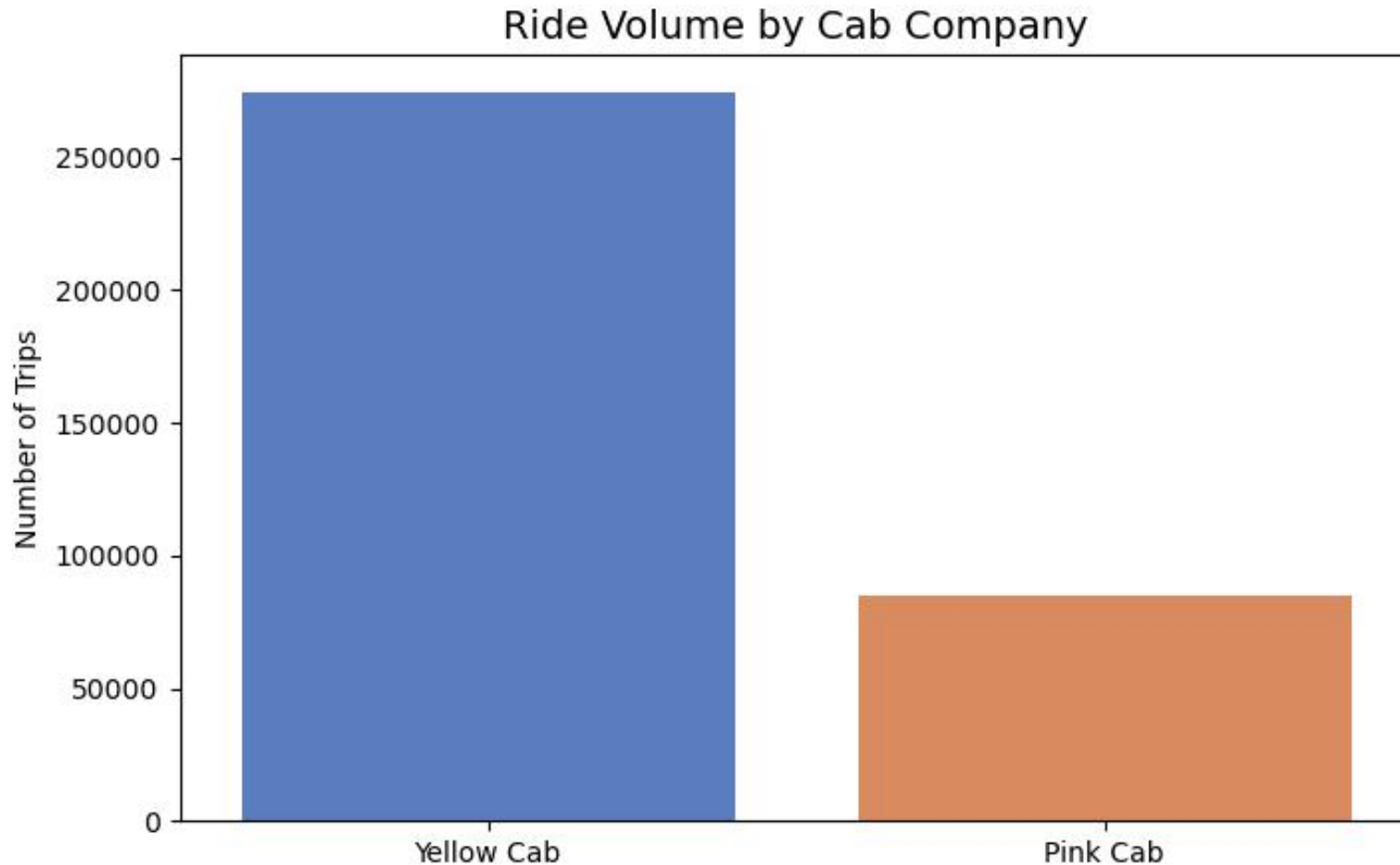
CUSTOMER SEGMENTATION(Market Share)



"Yellow_Market_Share" holds a higher market share in most cities as represented by orange lines compared to "Pink_Market_Share ."

Competitive regions include New York, Chicago, and Los Angeles.

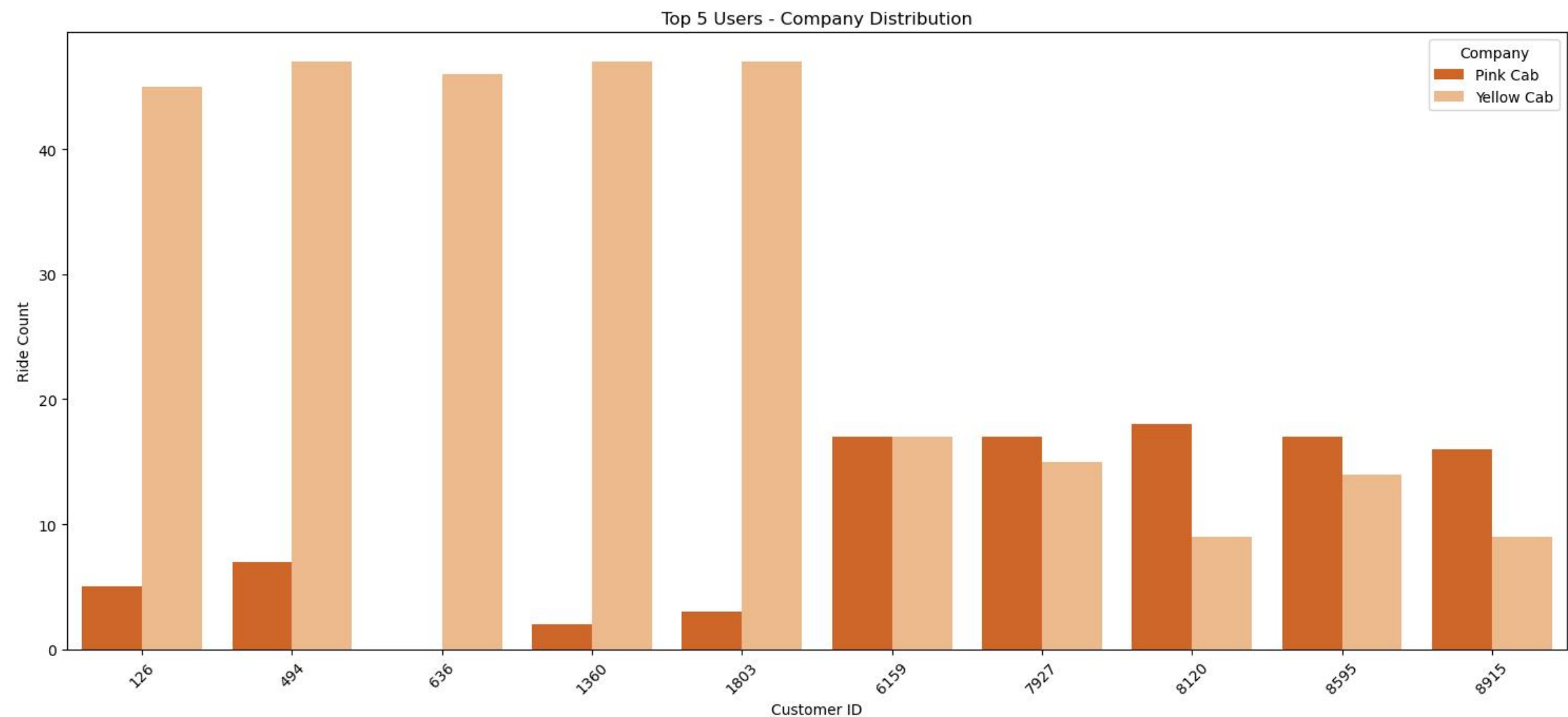
CUSTOMER SEGMENTATION(CAB USERS)



Yellow Cab has a significantly higher ride volume, with over 250,000 trips.

Pink Cab has fewer trips, around 100,000, making it the lower-performing service in comparison.

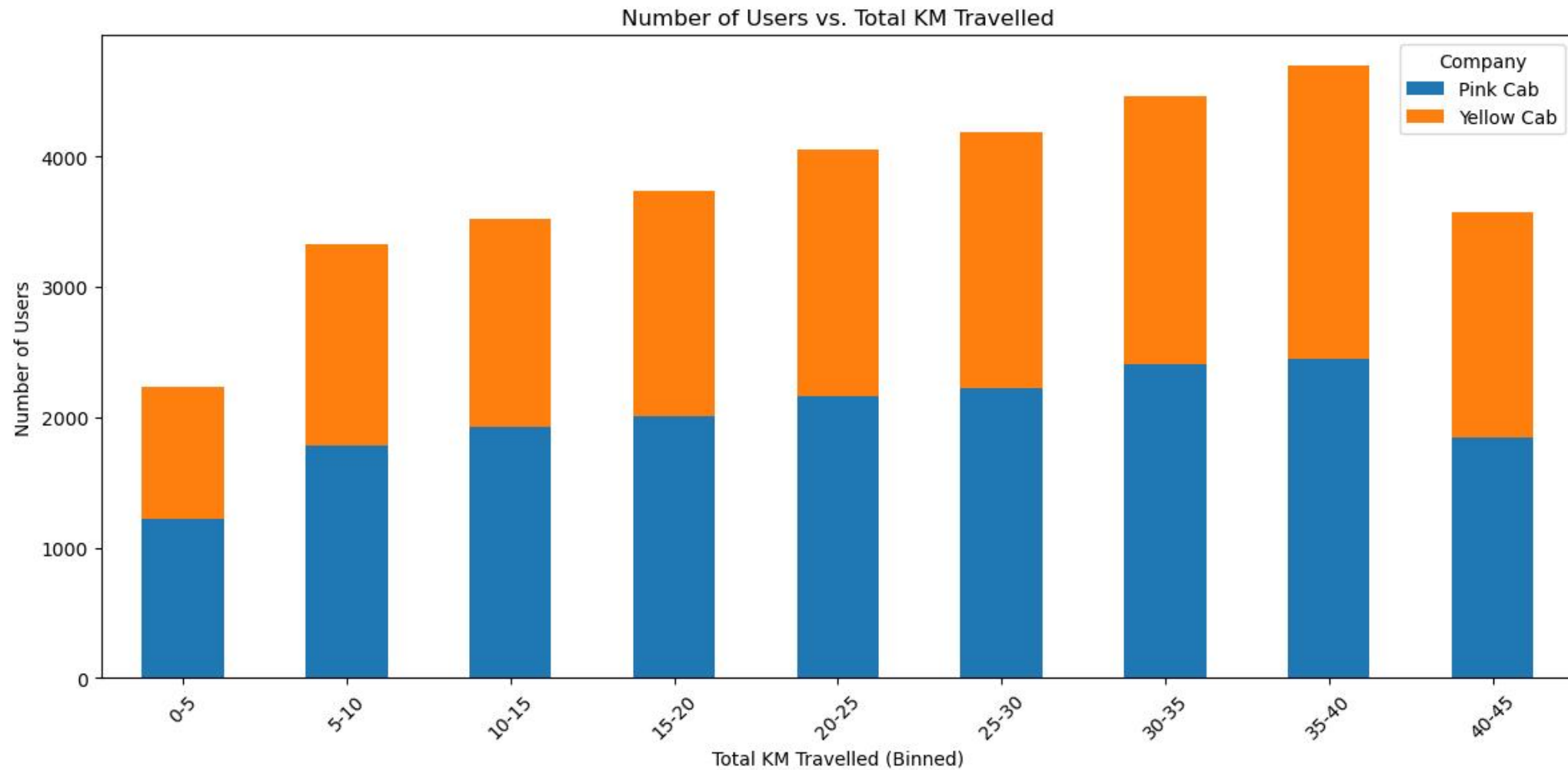
TOP 5 CUSTOMER ANALYSIS



TOP 5 CUSTOMER ANALYSIS

- The top 5 cab users mostly travelled with Yellow cab, as shown above they used Yellow cab more than 40 times in 50 rides.
- for every 10 rides taken:
 - Yellow Cab: ~7 to 8 rides
 - Pink Cab: ~2 to 3 rides
- This suggests that the top users in the dataset generally favored Yellow Cab more frequently.

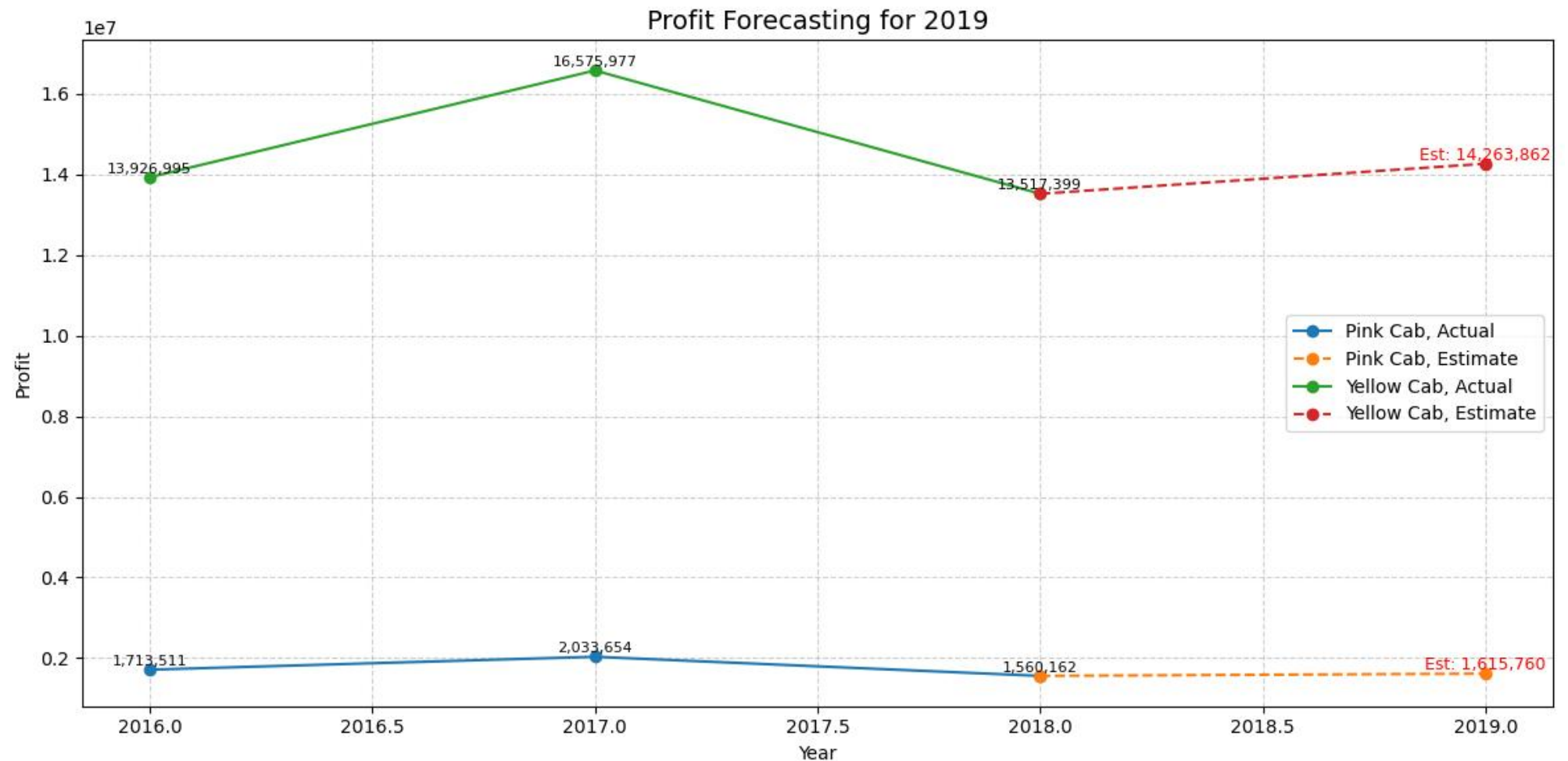
CUSTOMER ANALYSIS BASED ON RIDE DISTANCE



CUSTOMER ANALYSIS BASED ON RIDE DISTANCE

- Yellow Cab has a uniform customer distribution across short, medium, and long trips.
- Indicates better service plans for all distance segments.
- Trips between 5–35 KM contribute most to profits for both companies.
- Yellow Cab has a significantly higher customer reach than Pink Cab in short and long trip segments.

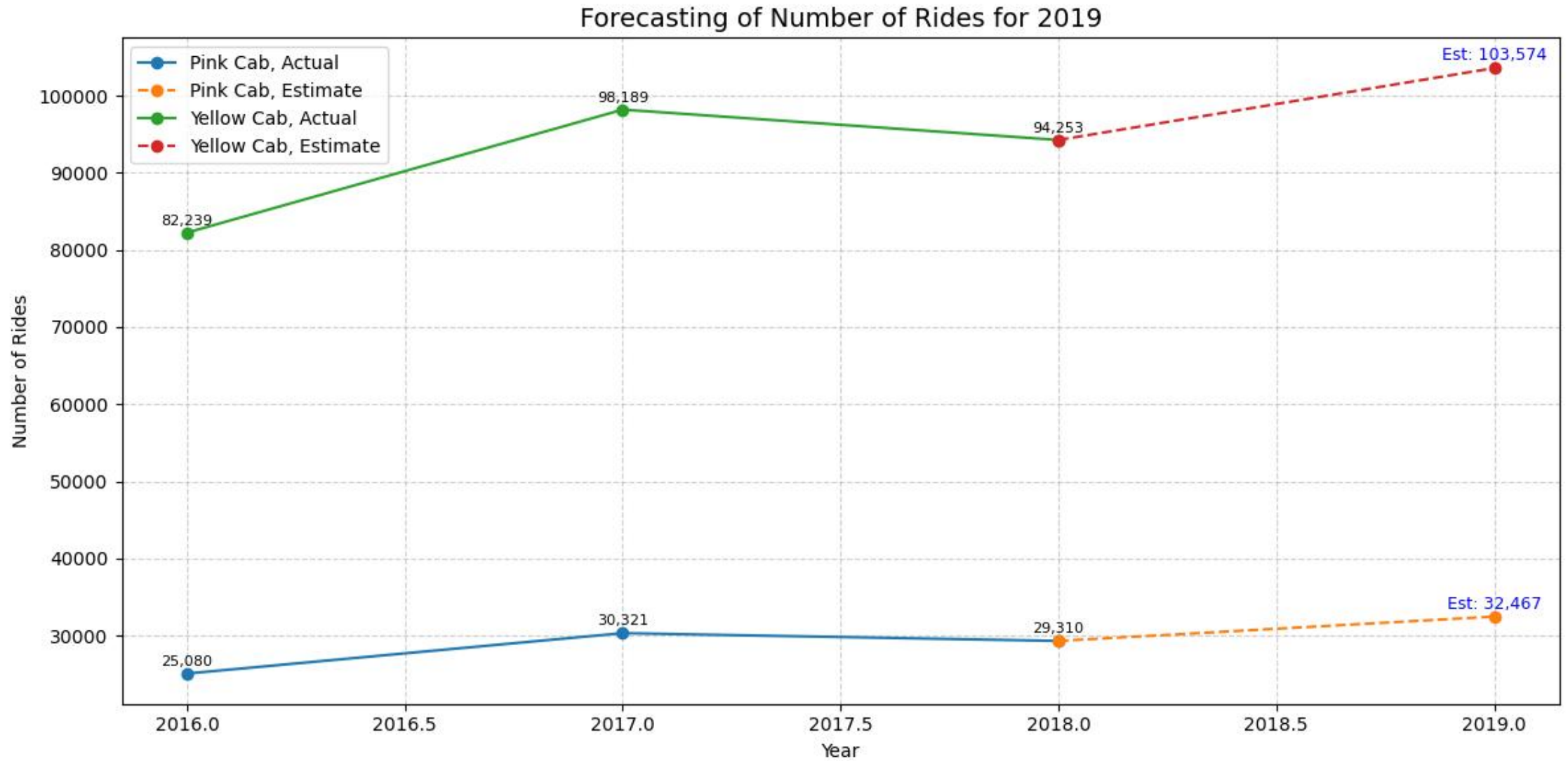
PROFIT ANALYSIS(FORECASTING PROFIT FOR 2019)



PROFIT ANALYSIS(FORECASTING PROFIT FOR 2019)

- Yellow Cab had significantly higher profits across all years compared to Pink Cab.
- After a dip in 2018, Yellow Cab's 2019 forecast shows a recovery, rising from \$13.5M to \$14.26M.
- Pink Cab shows a modest growth from \$1.56M in 2018 to an estimated \$1.62M in 2019.
- The profit gap between the two companies remains large.

RIDE ANALYSIS(FORECASTING RIDES FOR 2019)



RIDE ANALYSIS(FORECASTING RIDES FOR 2019)

- Yellow Cab has consistently higher ride numbers compared to Pink Cab.
- Pink Cab shows moderate growth, while Yellow Cab continues to increase significantly.
- The estimated number of rides for 2019 suggests both companies will experience growth, but Yellow Cab's dominance will continue.

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:** The top 5 users that has 50 rides with both Company, they had more than 40 rides with Yellow cab and closely 10 rides with Pink Cab. Cab users prefer travelling with Yellow cab Company.
- **Age wise Reach:** Yellow cab has customer in all age group and it's been observed that it's even popular in 60+ age group as equally as it's in 18-25 age group.
- **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 any class.
- **Ride count and Profit Forecasting :** The estimated number of rides for 2019 suggests both companies will experience growth, but Yellow Cab's dominance will continue and Yellow Cab had significantly higher profits across all years compared to Pink Cab.
- **On the basis of above point, we will recommend Yellow cab Company for investment.**

Thank You