# Exploratory Data Analysis

Go to market insight for cab investment firm

7/17/2023

Background

- Due to remarkable growth in the cab industry in last few years and multiple key players in the market, XYZ is planning for an investment in cab industry

- Using EDA we will analyze two cab companies to try to determine which is the best company to invest in

Cab users and population by city


Number of Users per City
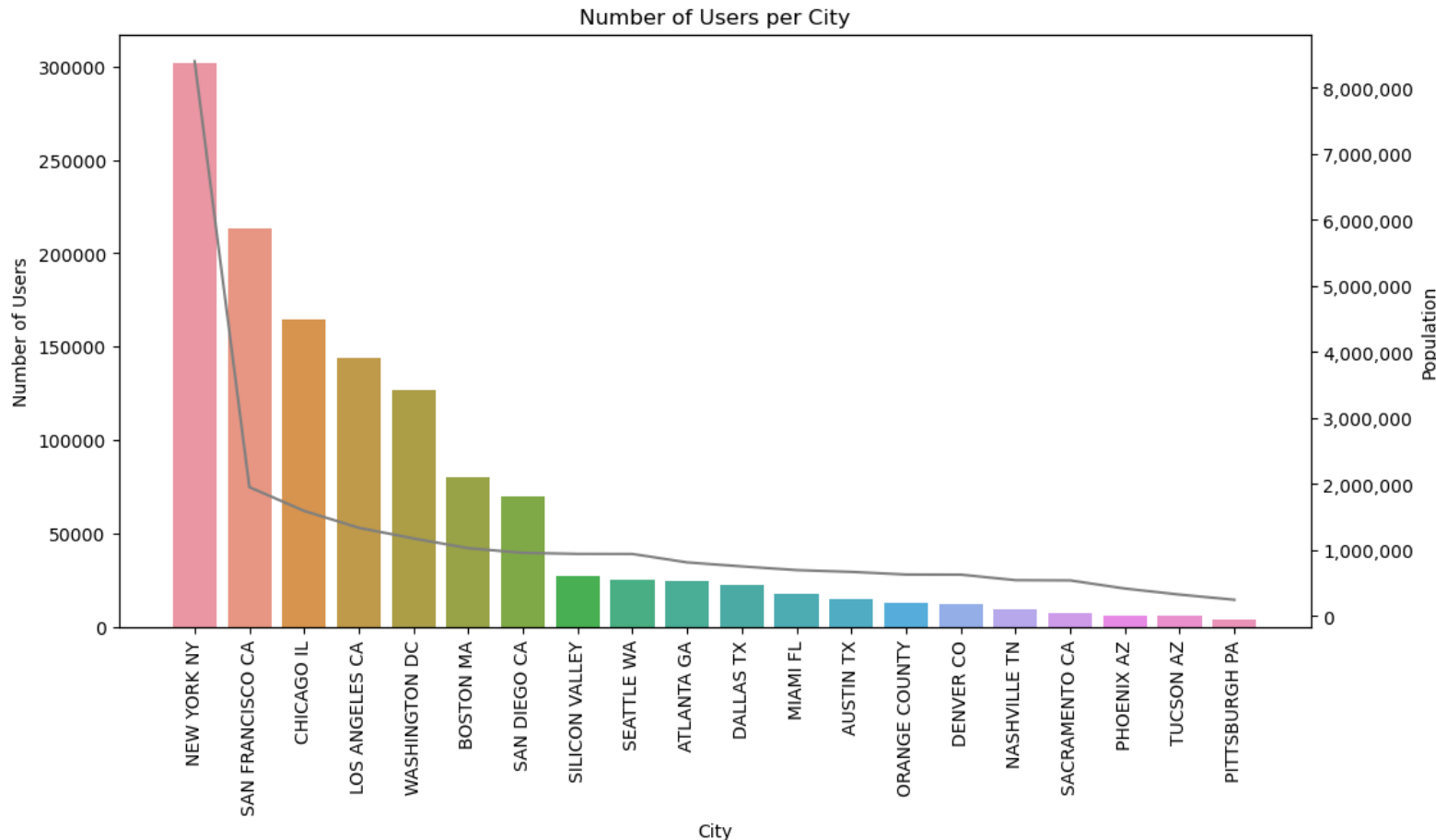
- New York (City) has the highest population and the highest number of users
- With a strong 70% correlation between population and cab usage, as population decreases so does the number of users for the cab services
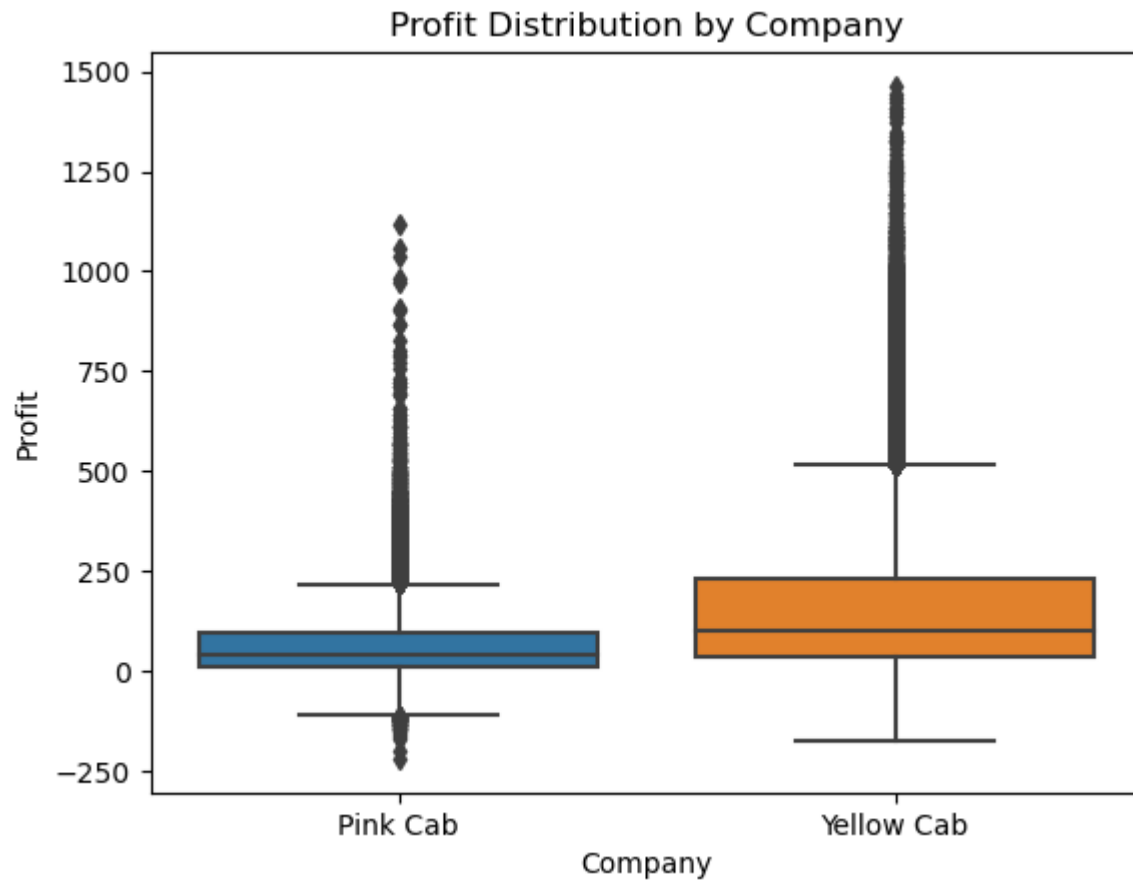
Distribution of companies

Distribution of Companies

Yellow Cab

76.4%

23.6%
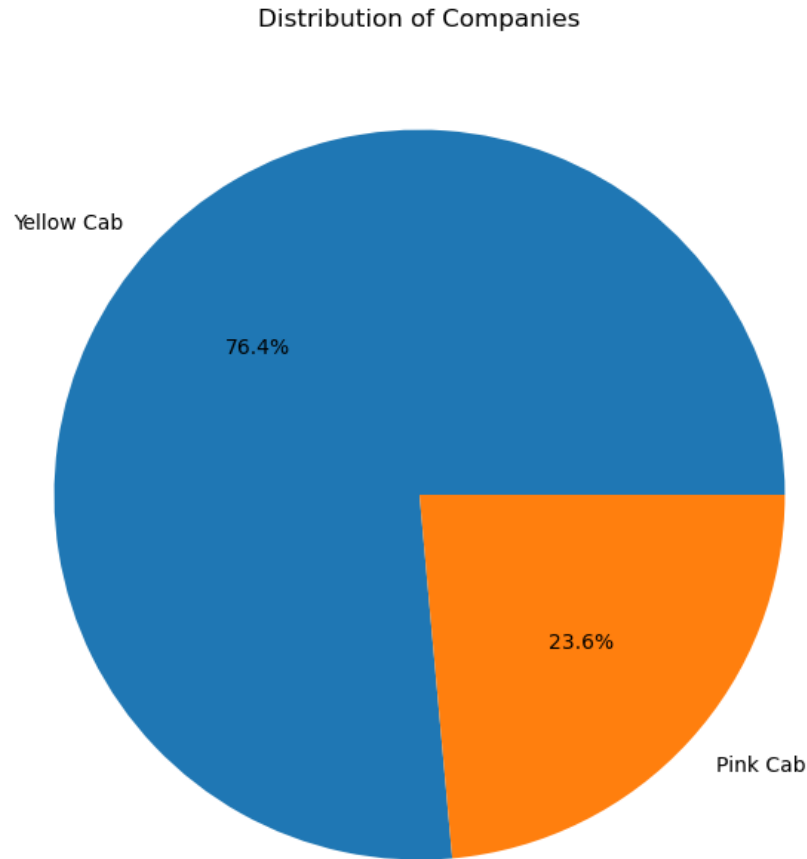
Pink Cab

Yellow cab has the bigger market share with 76.4% overall

Distribution of age

Distribution of Age
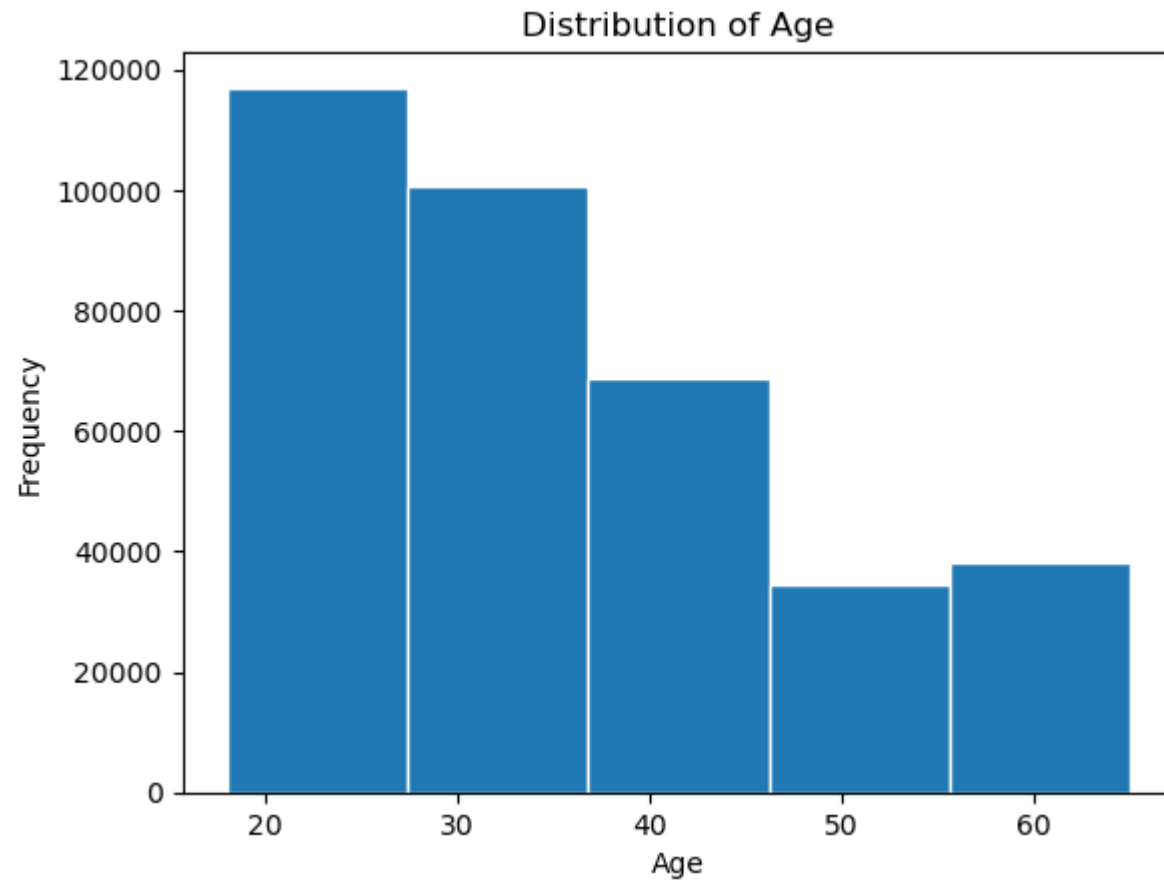
Overall, the largest age group is around ages 18-28

Profit distribution by company
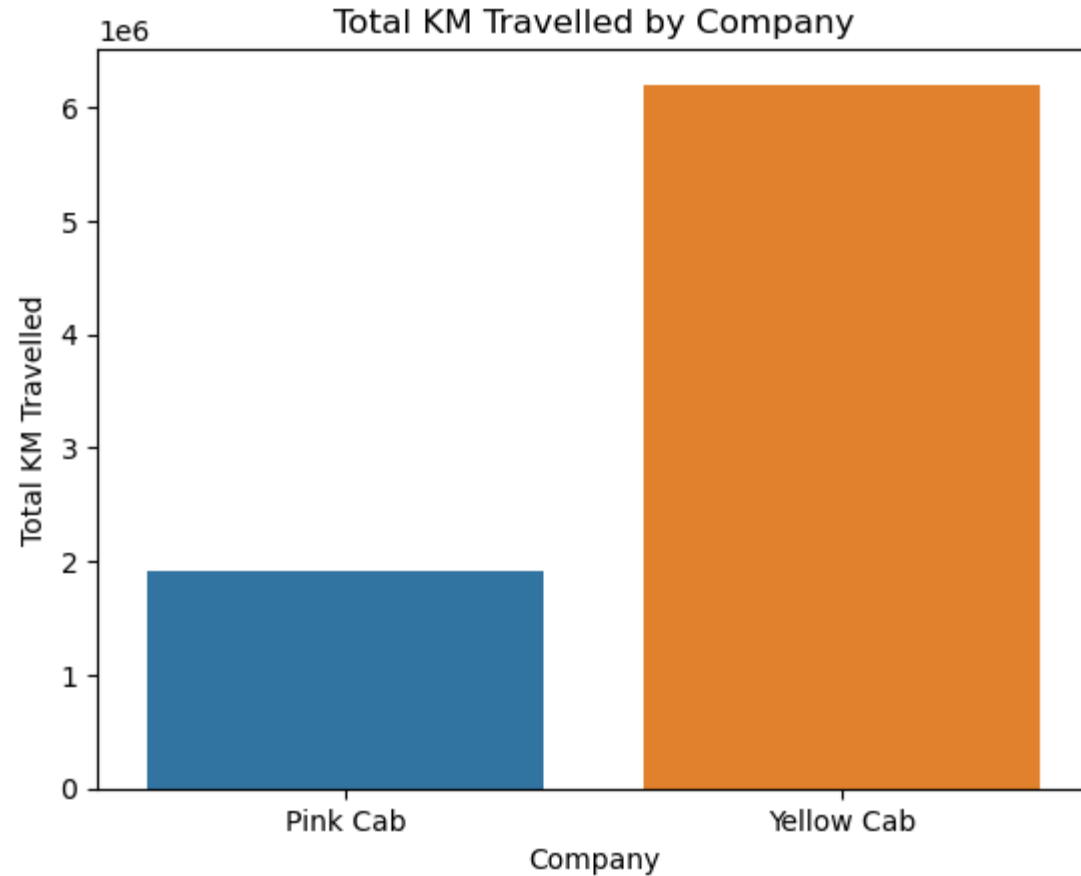

Profit Distribution by Company

It appears that the pink cab company has some outlier <$0 profit rides, while the outliers for the yellow cab are much higher than the outliers for the pink cab company

Profit distribution by age and company

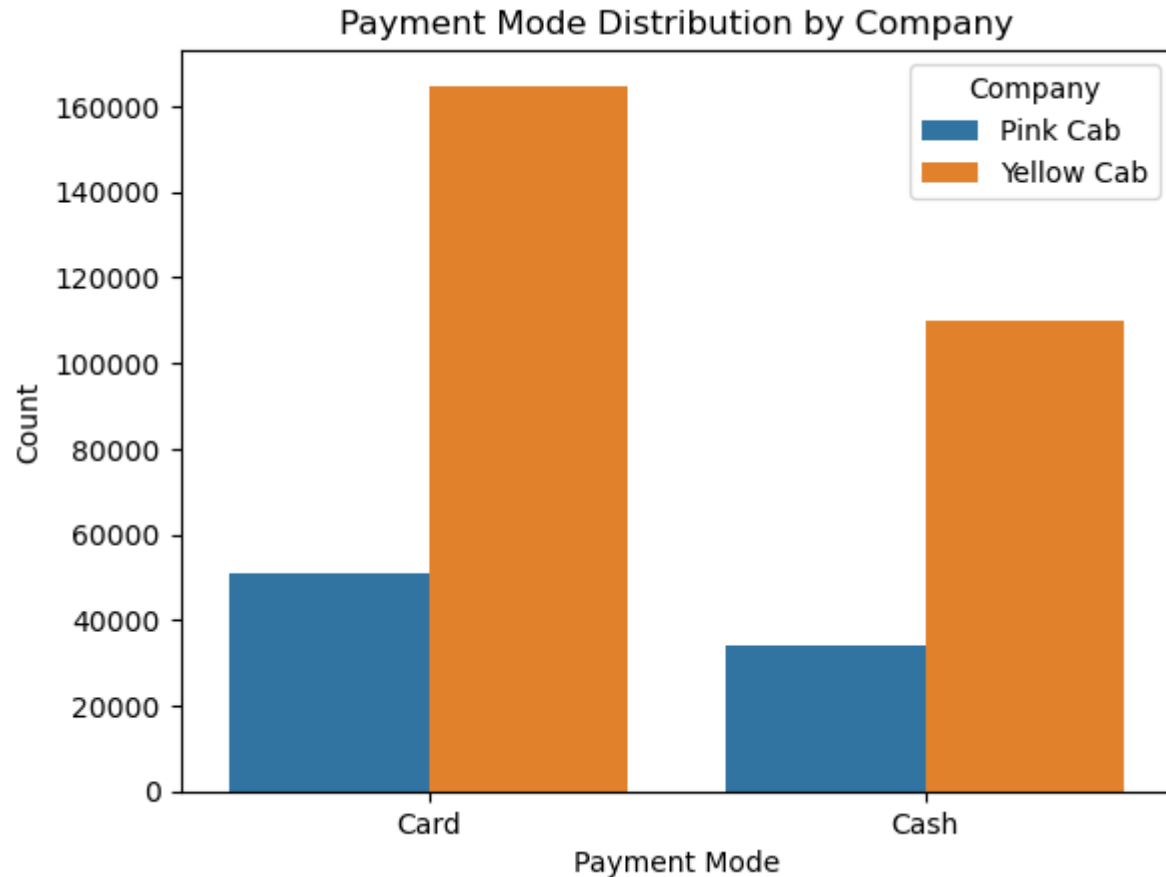Profit Distribution by Company and Age Group
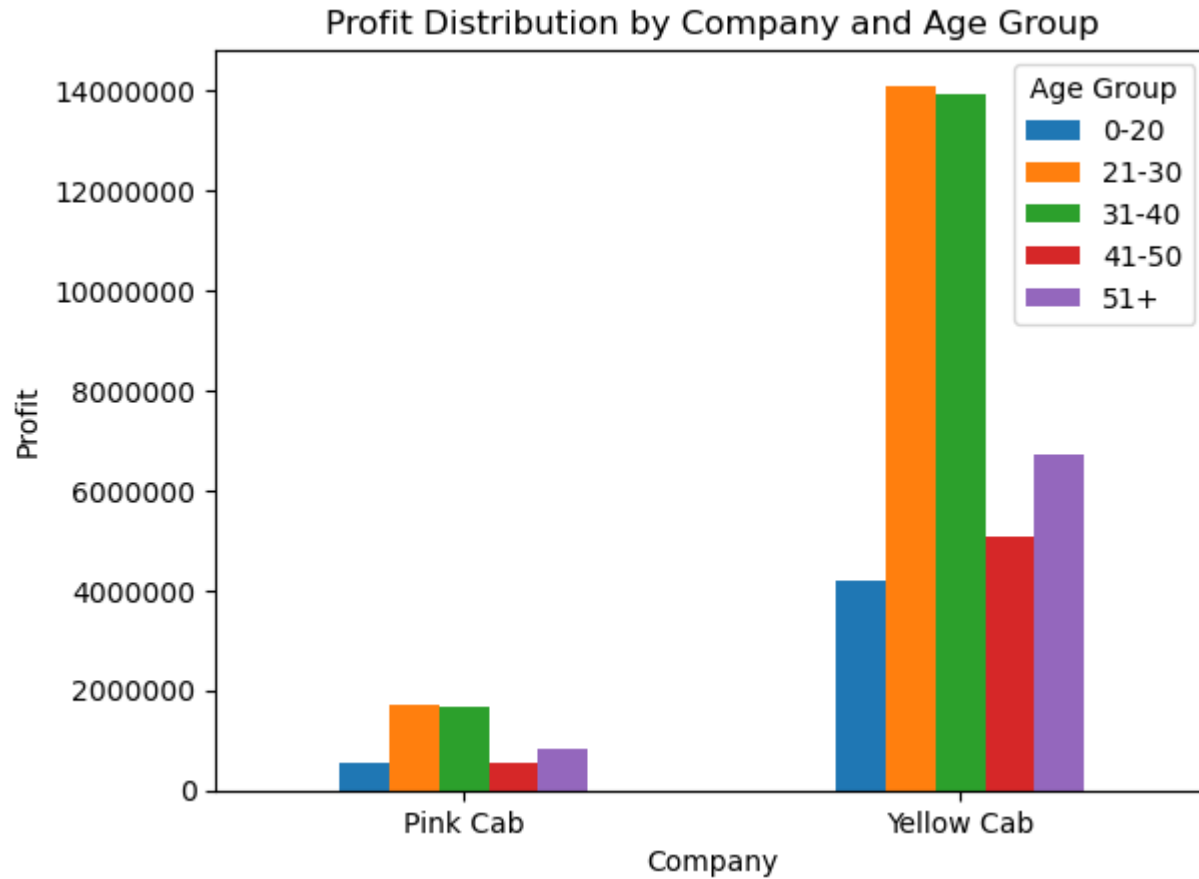
The yellow cab company has a much greater amount of profits. Each company has the most profits from the 21-40 age range
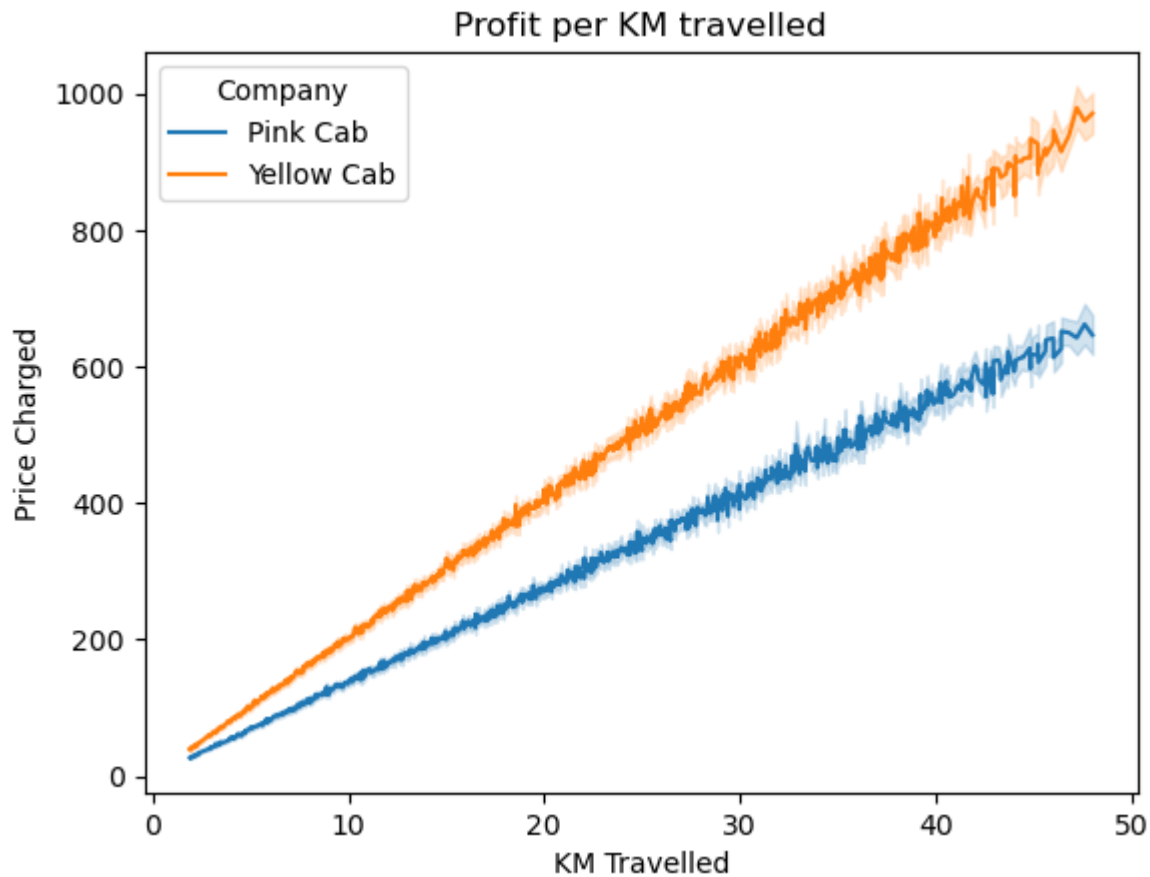
Total distance travelled

Yellow cab company has the most KM travelled

Payment mode distribution

Payment Mode Distribution by Company

Each company primarily uses card payments

Profit per KM travelled

Yellow cab company has a greater profit per KM traveled

Recommendations

The yellow cab company is the clear winner here as they have:

- The largest market share
- The greatest profits
- The most distance travelled with the highest profit per KM travelled

Additional information

- Credit card payments are most commonly used

- The youngest age groups are the most frequent riders

- As a cities population increases, there is a proportional increase in ridership

Thank You