



**Data Glacier**

Your Deep Learning Partner

# G2M insight for Cab Investment firm

17.06.2022

# Executive Summary

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.

## Problem Statement

There are 2 Taxi firms to analyse: Yellow Cab and Pink Cab. Objective is to analyze the work of each firm and provide information that will help XYZ choose a more competitive firm to invest in.

# Approach

There are 4 files with different information:

- Customer\_ID. This is a mapping table that contains a unique identifier which links the customer's demographic details
- Cab\_data. Extended information about transactions. This file includes details of transaction for 2 cab companies.
- Transaction\_ID. This is a mapping table that contains transaction to customer mapping and payment mode
- City. This file contains list of US cities, their population and number of cab users.

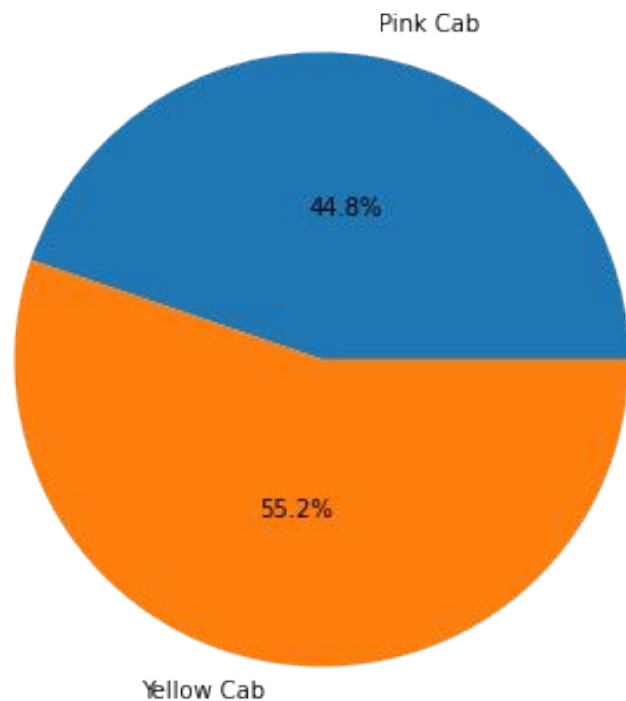
In addition was added file with informations about Holidays in US.

## Assumptions:

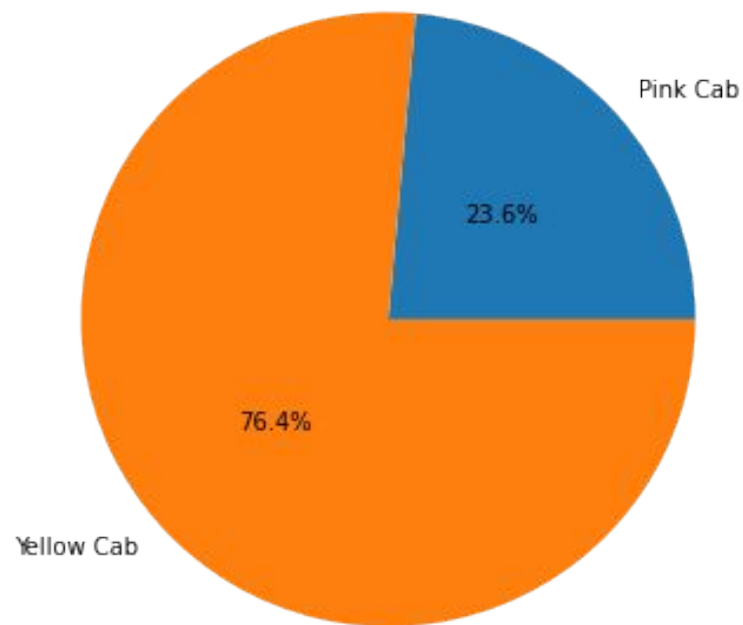
- The file Transaction\_ID has on 80 706 transactions more than Cab\_data. That is mean that we have no informations about price, city and km, company. Information about these transactions was not added in analysis file.
- Outliers are present in the Price\_Changed function, but due to the lack of any additional information about the trip (discounts, duration of the trip), we do not consider tx as an outliers.
- There are 26078 of 46148 clients who use the services of both companies.

# Clients & Trips analysis

Yellow & Pink Cab Total Users Overview

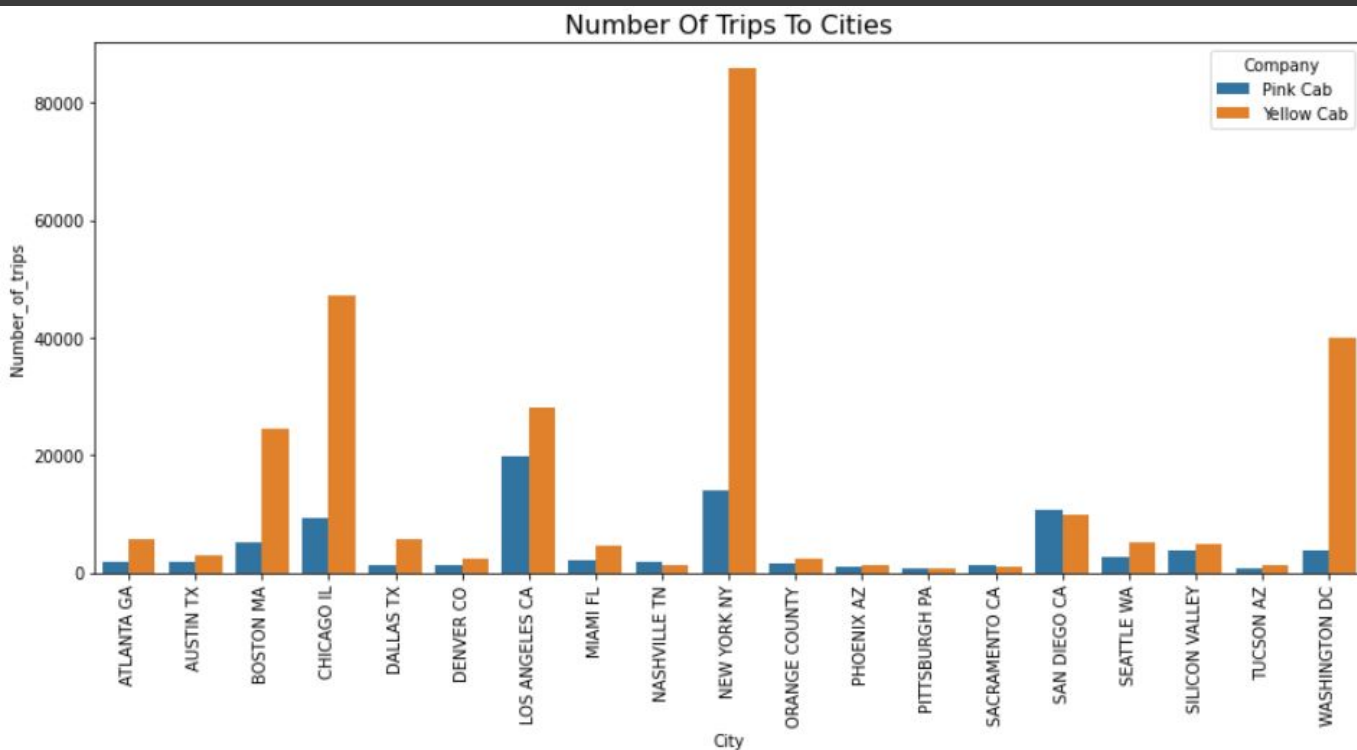


Yellow & Pink Cab Total Trips Overview

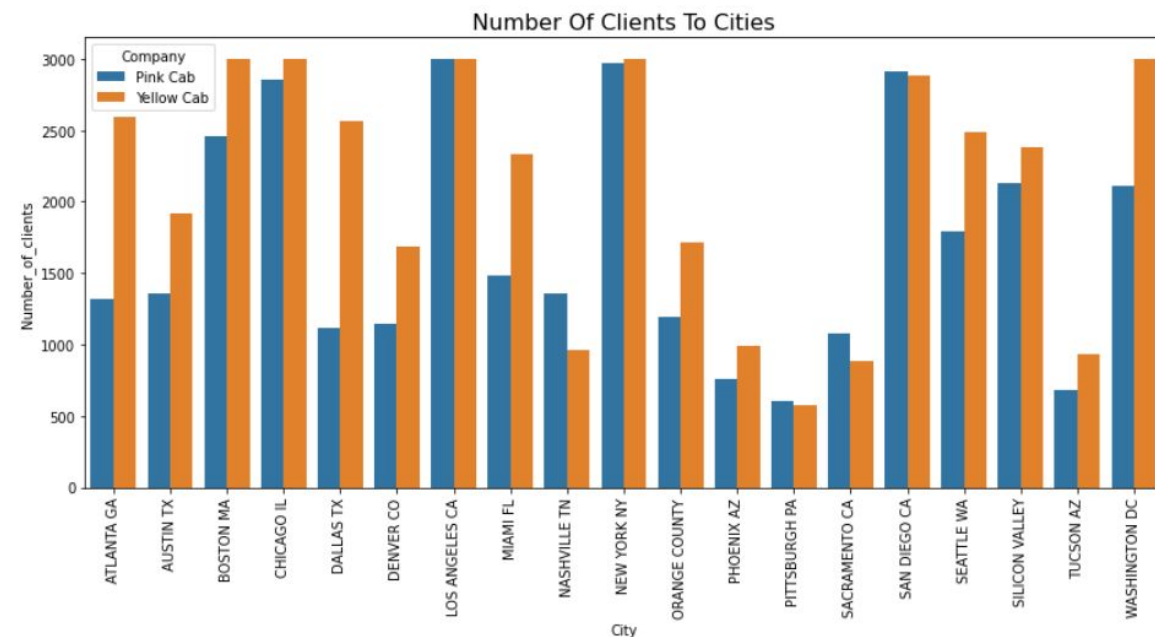


Despite the fact that the number of customers of Yellow Cab Firm is only 10% more than Pink Cab Firm, the number of trips of Yellow Cab Firm is more than 3 times that of Pink Cab Firm.

# Clients & Trips analysis



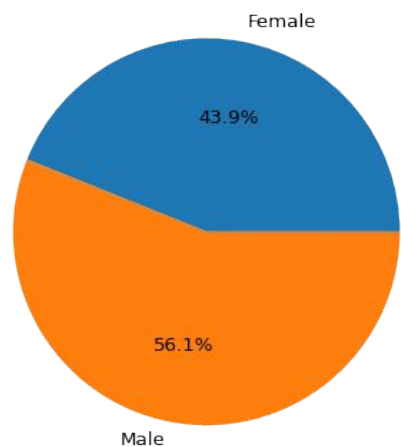
Number of clients by cities totally different than number of trips. In Los Angeles both companies have almost the same number of clients, but Yellow Cab has a more trips. Pink Cab has a advantage only in 4 cities: Pittsburg, Sacramento, Nashville, San Diego, but differents are not to big.



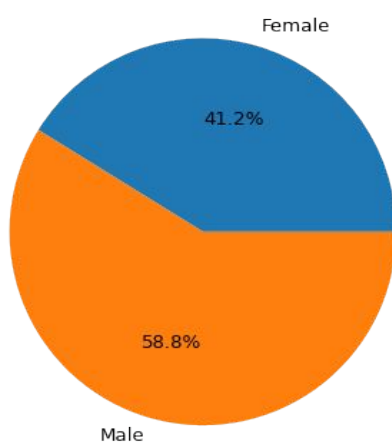


# Profit analysis: by Gender, Age, Income

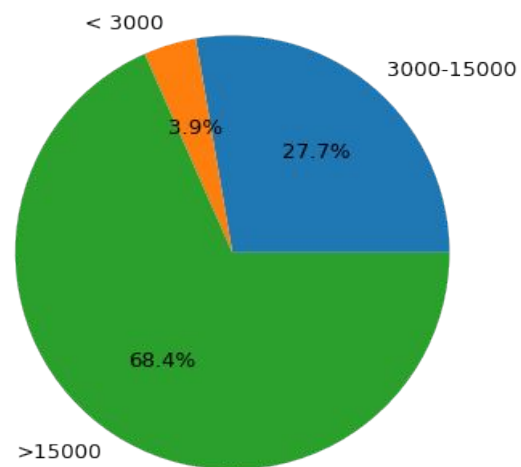
Pink Cab Company's Profit Share by Gender



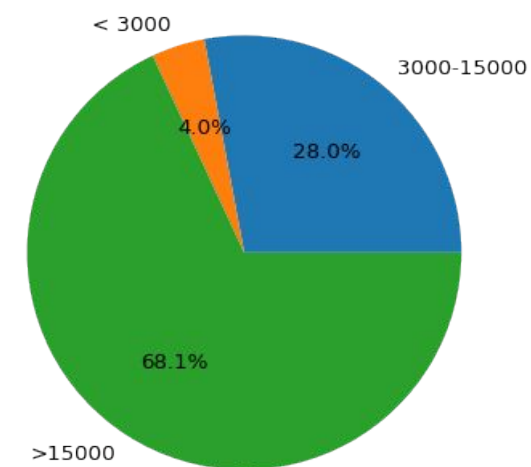
Yellow Cab Company's Profit Share by Gender



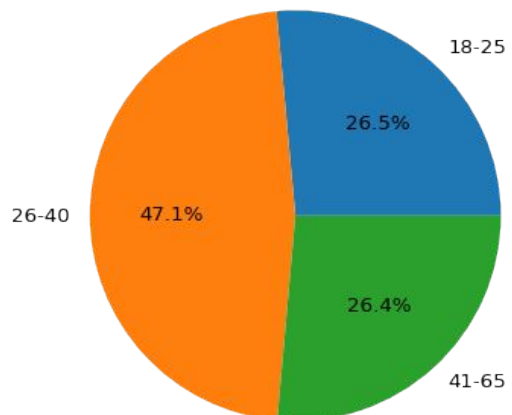
Pink Cab Company's Profit Share by Income Groups



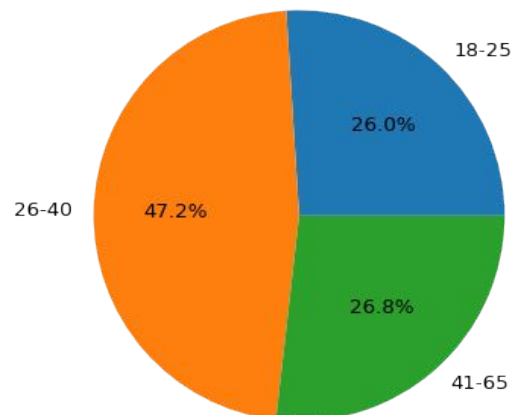
Yellow Cab Company's Profit Share by Income Groups



Pink Cab Company's Profit Share by Age Groups



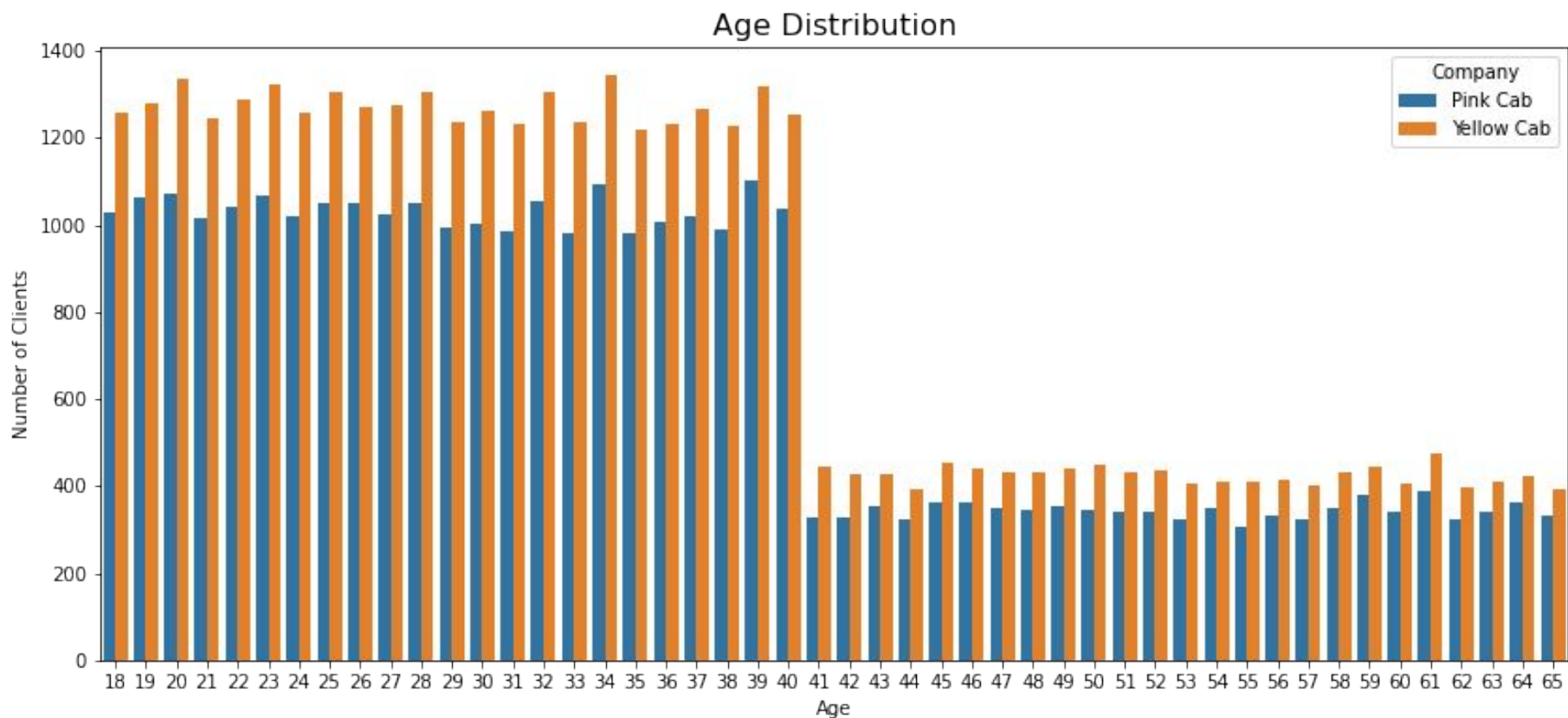
Yellow Cab Company's Profit Share by Age Groups



Profit was calculated as **Price\_Charged - Cost\_of\_Trip**

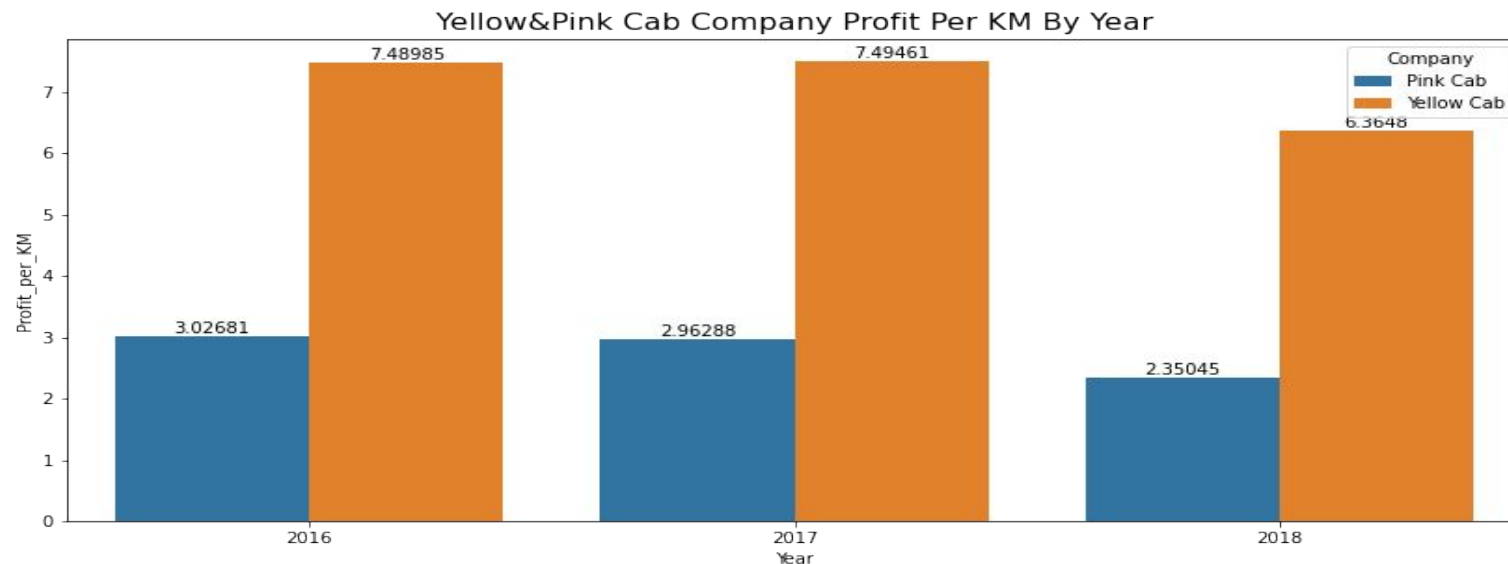
The distribution of clients by salary groups, age, gender in both firms is almost the same.

# Age distribution

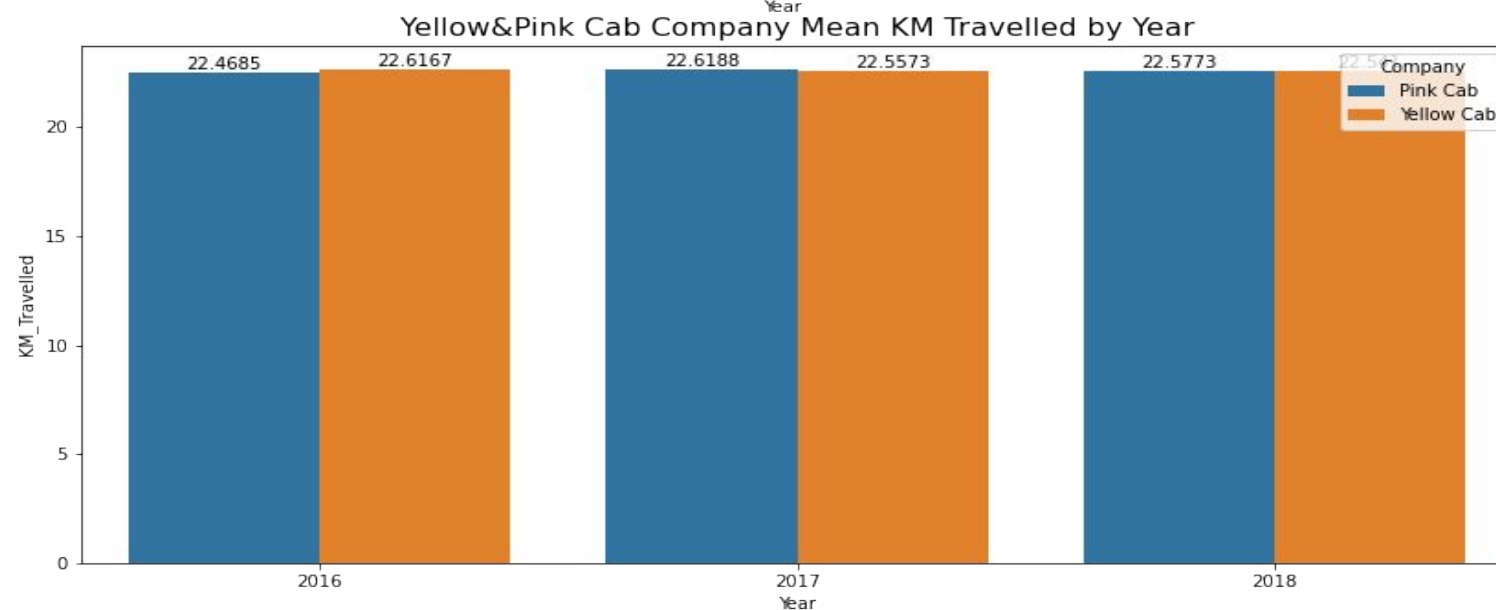


The number of clients over the age of 40 is sharply decreasing. This trend is true for both companies.

# Profit analysis



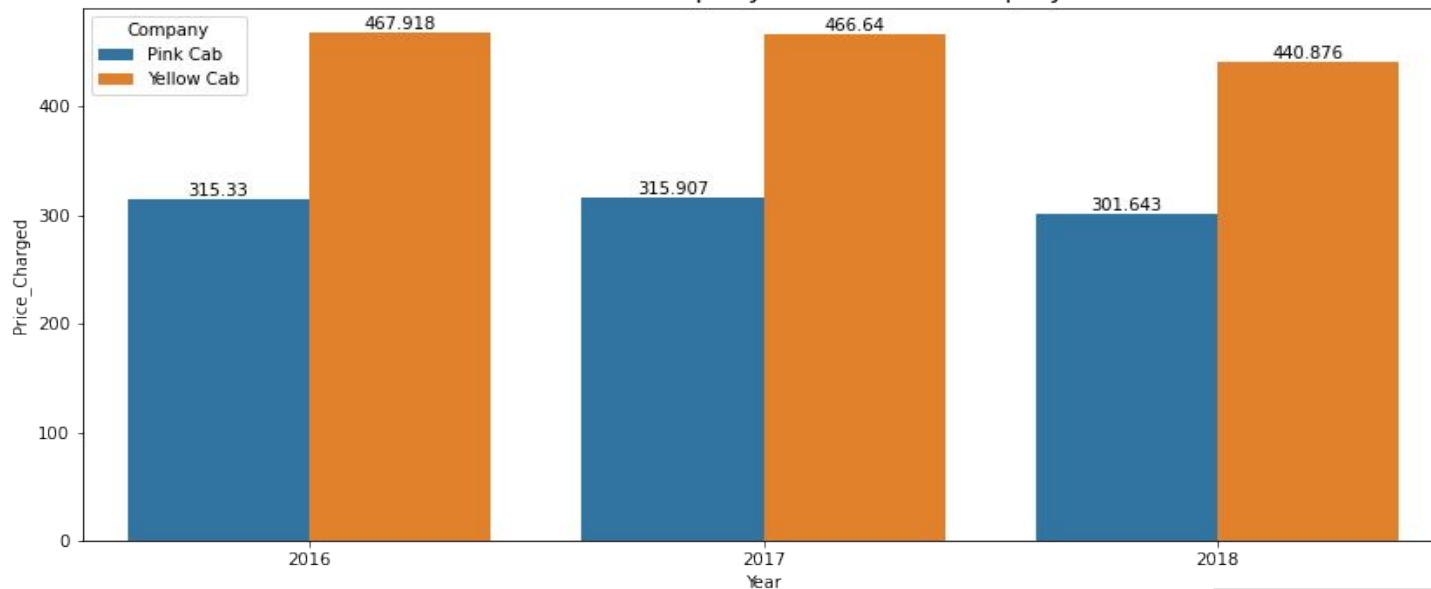
Despite the fact that the mean travel's distance for both companies are almost the same, mean profit per km has Yellow Cab Firm more than Pink Cab Firm.





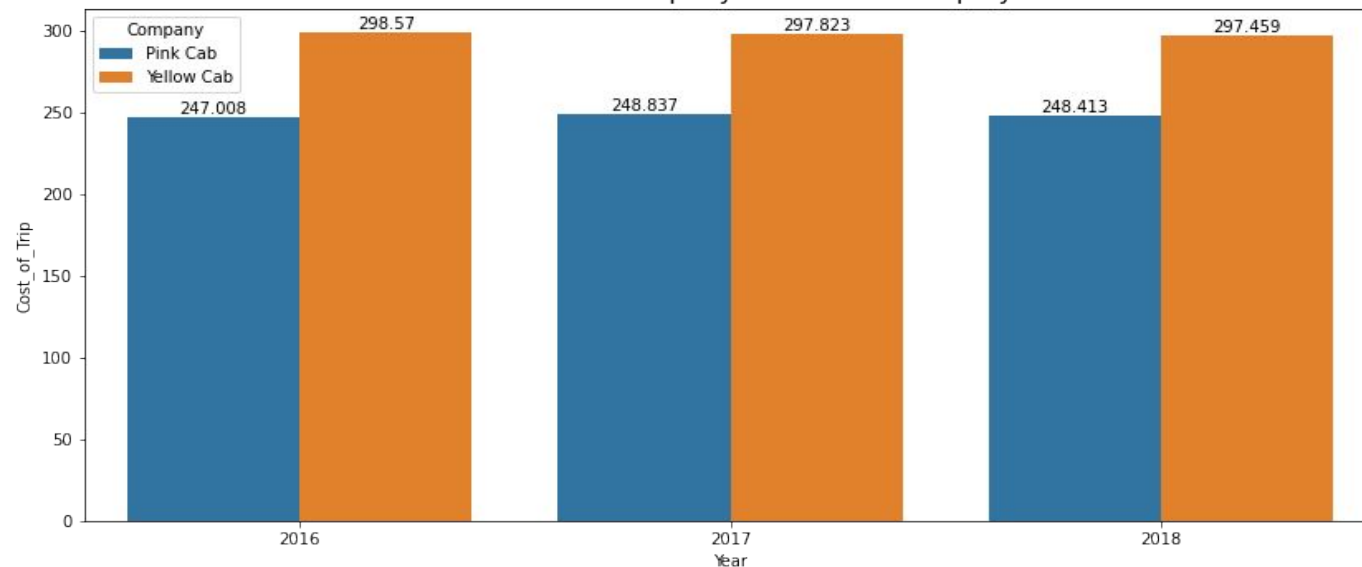
# Profit analysis

Yellow&Pink Cab Company Mean Price of Trip by Year



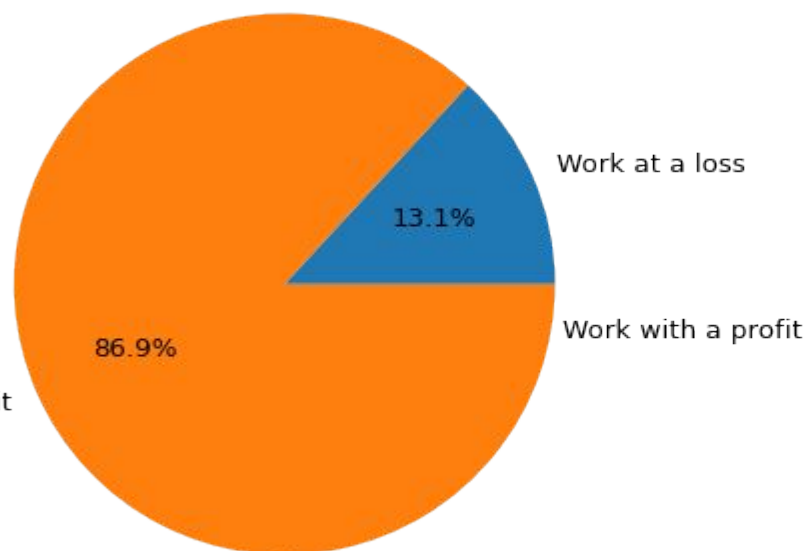
- The difference in average cost between 2 companies is about 20% every year. The trips by Yellow Cab Company cost more expensive than Pink Cab.
- Mean Yellow Cab price higher than Pink Cab on about 48%. Based on this, even with the same number of trips, the profit of the yellow taxi will be higher.

Yellow&Pink Cab Company Mean Cost of Trip by Year

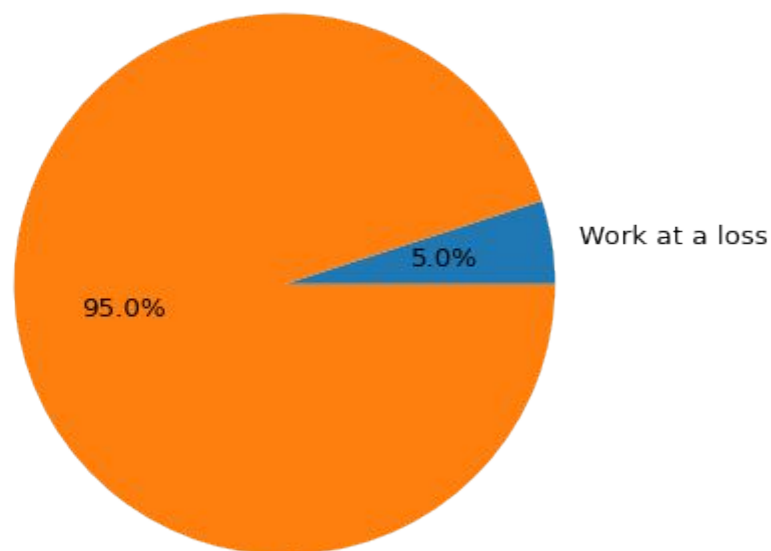


# Work At a Loss Analysis

Pink Cab Company's Work At A Loss



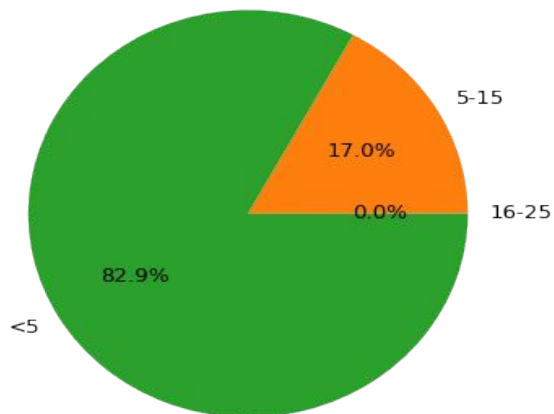
Yellow Cab Company's Work At A Loss



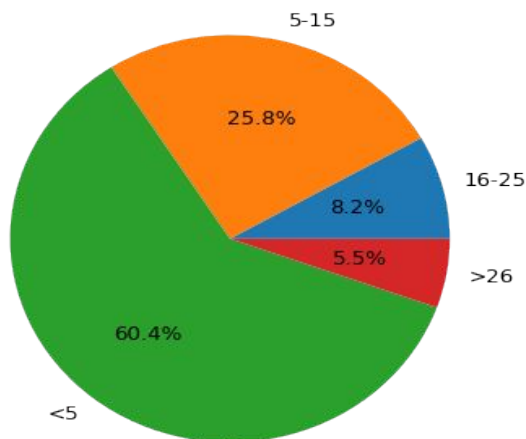
- Pink Cab company makes 13 percent of all its trips at a loss.
- Yellow Cab company also has such trips - 5%.

# Retention

Pink Cab Company's Retention

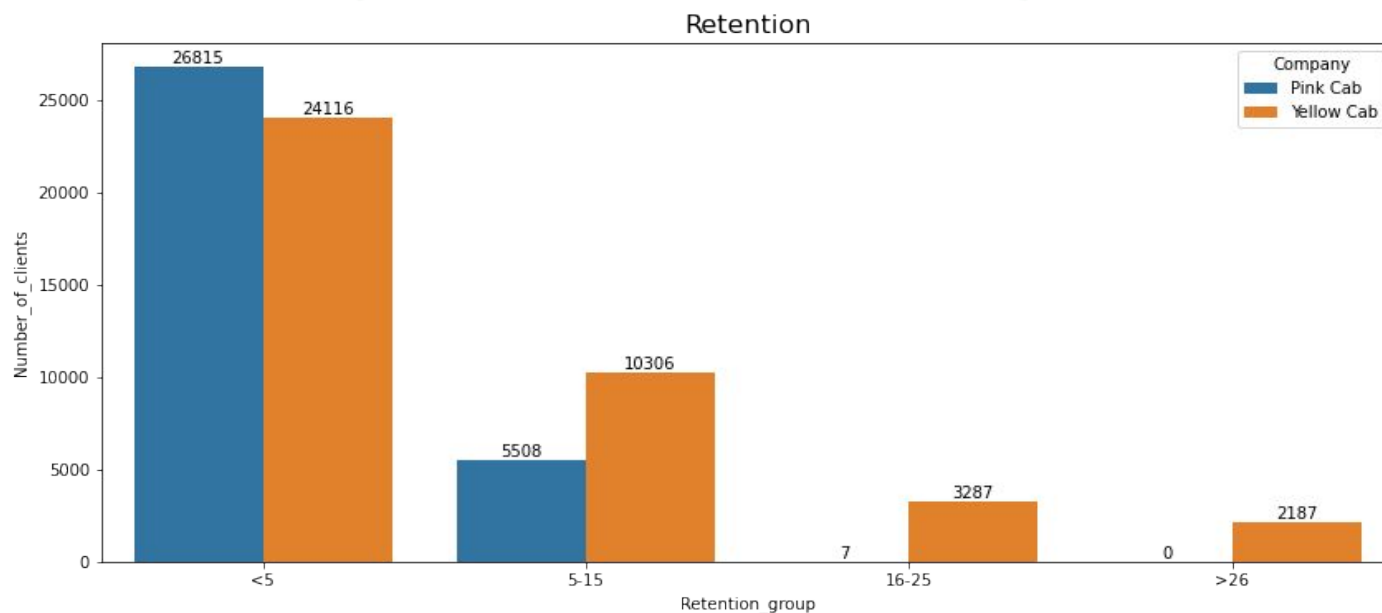


Yellow Cab Company's Retention



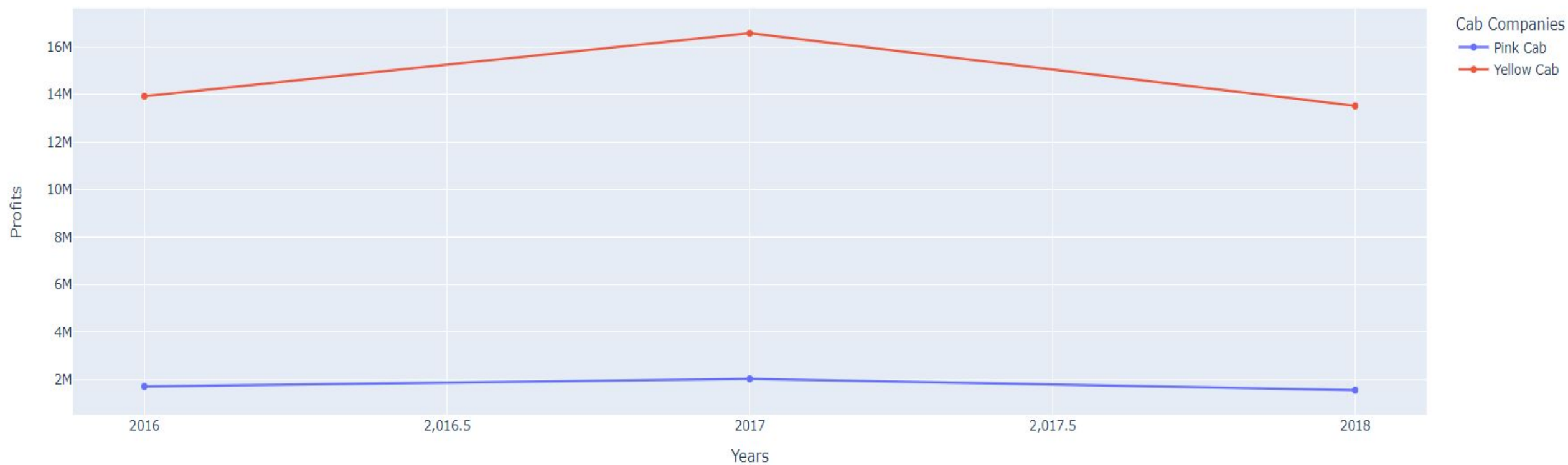
On this slide we can see how many clients return to company.

- Pink Cab company has a 83% of clients who have 4 and less trips during 3 years. 17% clients have 5-15 trips. And only 7 clients (< 0.01%) have 16-26 trips.
- 60.4% Yellow Cab company's clients have less than 5 trips. Almost 40% clients are regular customers.



# Profit per Year

Yellow&Pink Cab Firms Profit Per Year



# Recommendations

We analyzed both taxi companies and came to the conclusion that the Yellow Cab company is better for investing for the following reasons:

- **Higher number of clients and trips.** The number of customers 10% more, number of trips in 3 times more than has Pink Cab Firm.
- **Distribution by city.** More number of cities where taxis are more popular. (Yellow Cab - 25 vs. Pink Cab - 4)
- **Average profit per KM** higher in 2.5 times.
- **Work at a loss.** 8% less than Pink Cab company works at a loss.
- **Retention.** Almost 40% of clients are permanent clients who had more than 5 trips during 3 years.

**Based on the above, we recommend the Yellow Cab company for investment.**

# Thank You