



Data Glacier

Your Deep Learning Partner

Exploratory Data Analysis

G2M Case Study

18/05/2024

Agenda

Executive Summary

Problem Statement

Approach

EDA

Conclusion & Recommendations

Executive Summary

Introduction

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.

Problem Statement

Our goal:

To provide actionable insights to help them identify the right company to make their investment.

Data:

15 variables in total show in 4 data sets.

Time line: 31/01/2016 ~ 31/12/2018

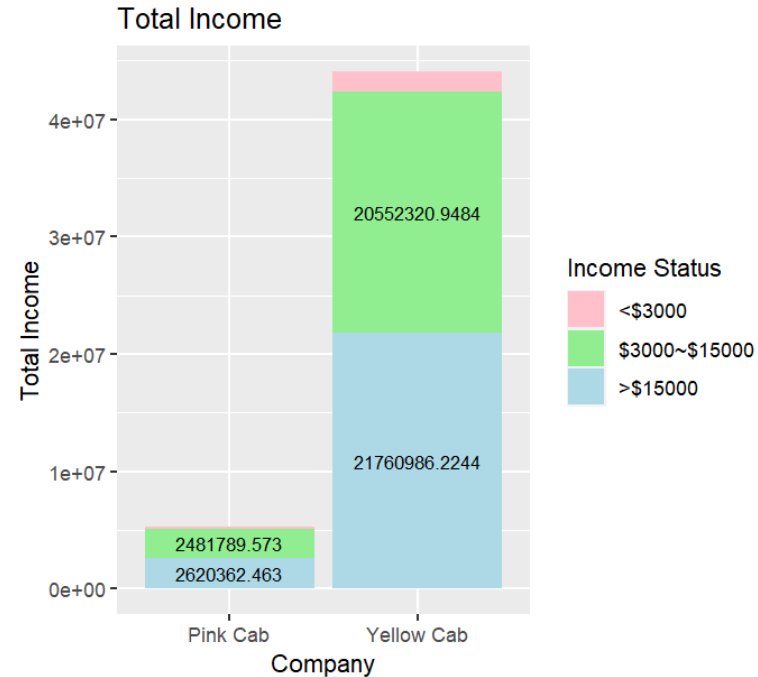
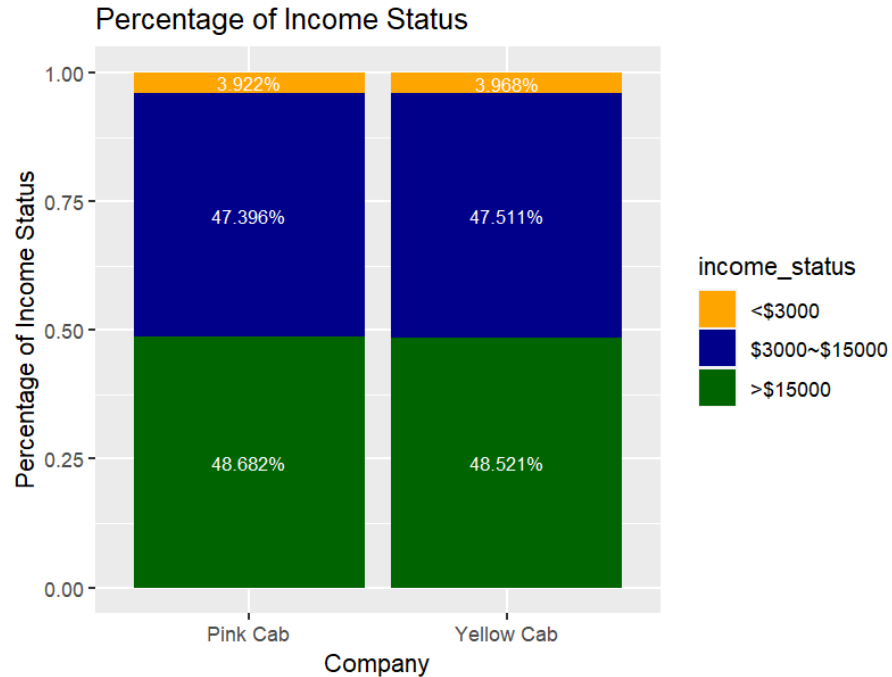
Approach

1. Data Exploration
2. Analyze the customers' structure of each company
3. Find out the company with potential and low investment risk
4. Recommendations

Assumptions

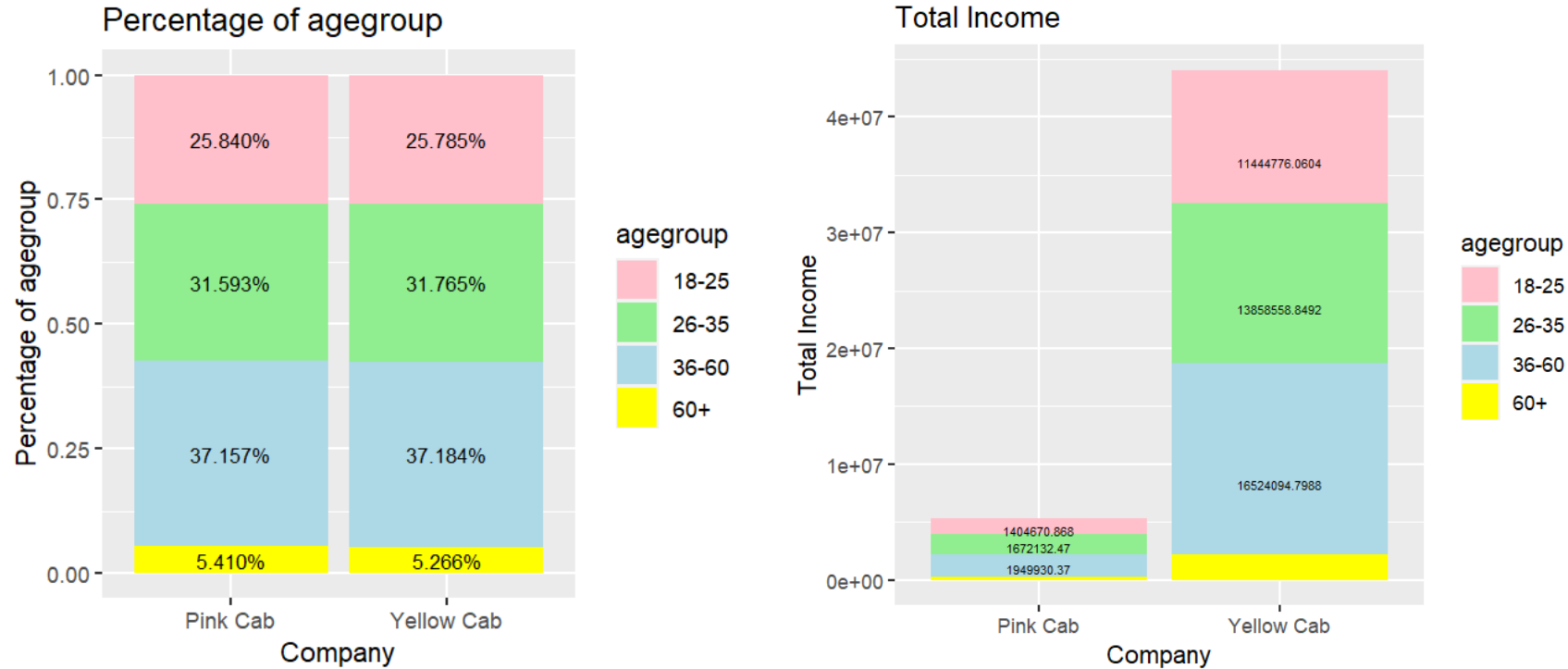
1. Outliers are shown in "cab" for missing specific order information, and the only information we can get is the payment method. Hence I choose to delete these outliers in the "cab" file.
2. Due to different amount of orders in each city and each company, and different amount of KM, profit per KM is calculated and used to compare in each city and company.
3. Due to huge gap of number of customers in each company, the percentage of age, income status etc. are calculated to show the structure of customers.
4. Since the total number of customers belong to these two companies is not equal to the total users, I assume that there are other companies exist but not being collected into these files.
5. In order to analyze conveniently, I combine "transaction", "cus_id" and "city" with "cab". Moreover, I create several data sets to calculate the total profit of each group, such as age group, income_status etc., and the percentage of each group.

Income Status



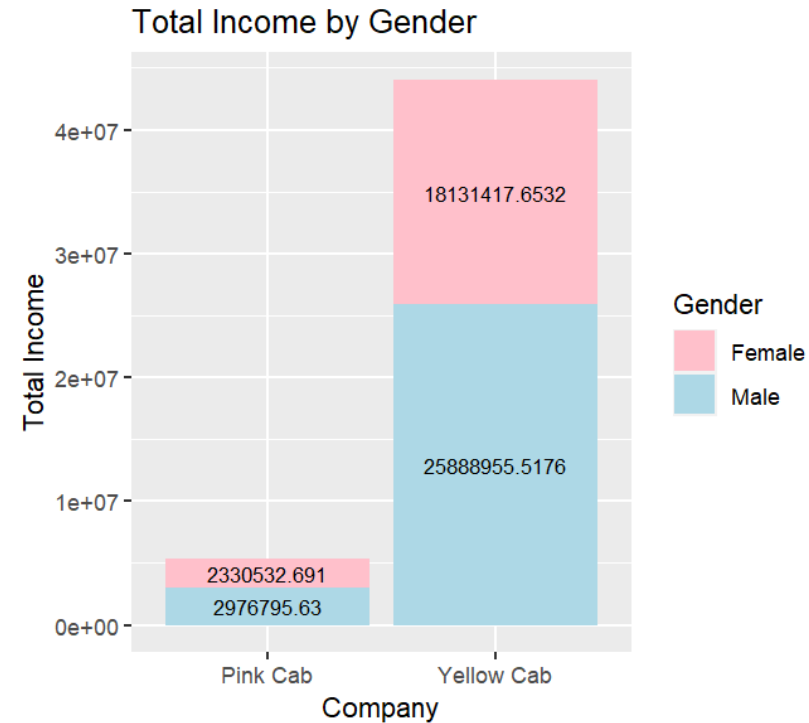
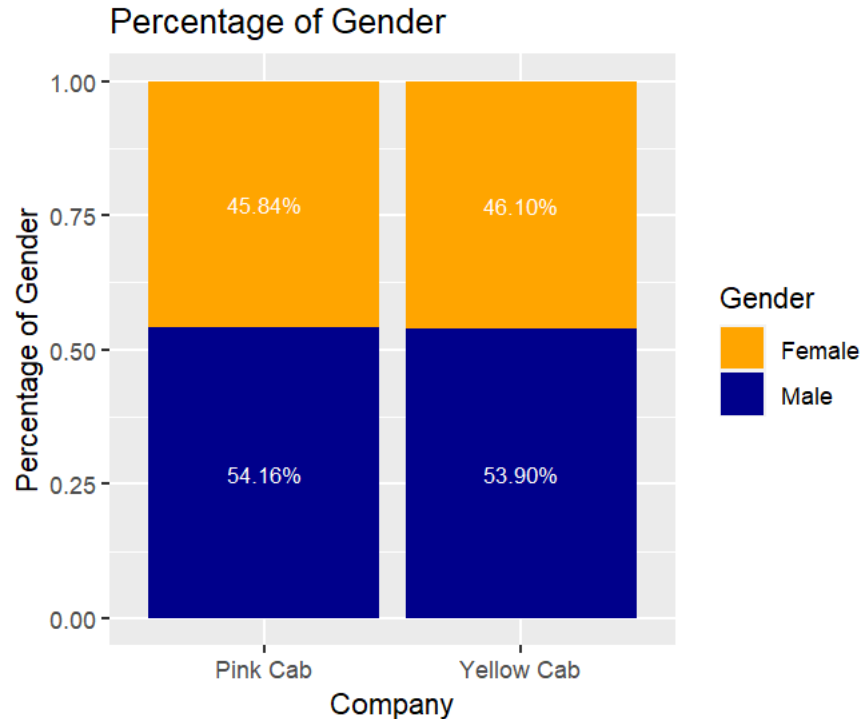
1. Two firms' customers have nearly the same proportion of the three income levels, but the total revenue gap is huge. Clearly the total revenue of yellow cab company is much higher than that of pink cab company.
2. Most of the gains come from the top income earners, those who monthly income are higher than \$15000.

Age groups



1. Two firms' customers have nearly the same proportion of four age groups, but the total revenue gap is huge. Clearly the total revenue of yellow cab company is much higher than that of pink cab company.
2. Most of the gains come from 36-60 years old, and the proportion of customers older than 60 is very small.

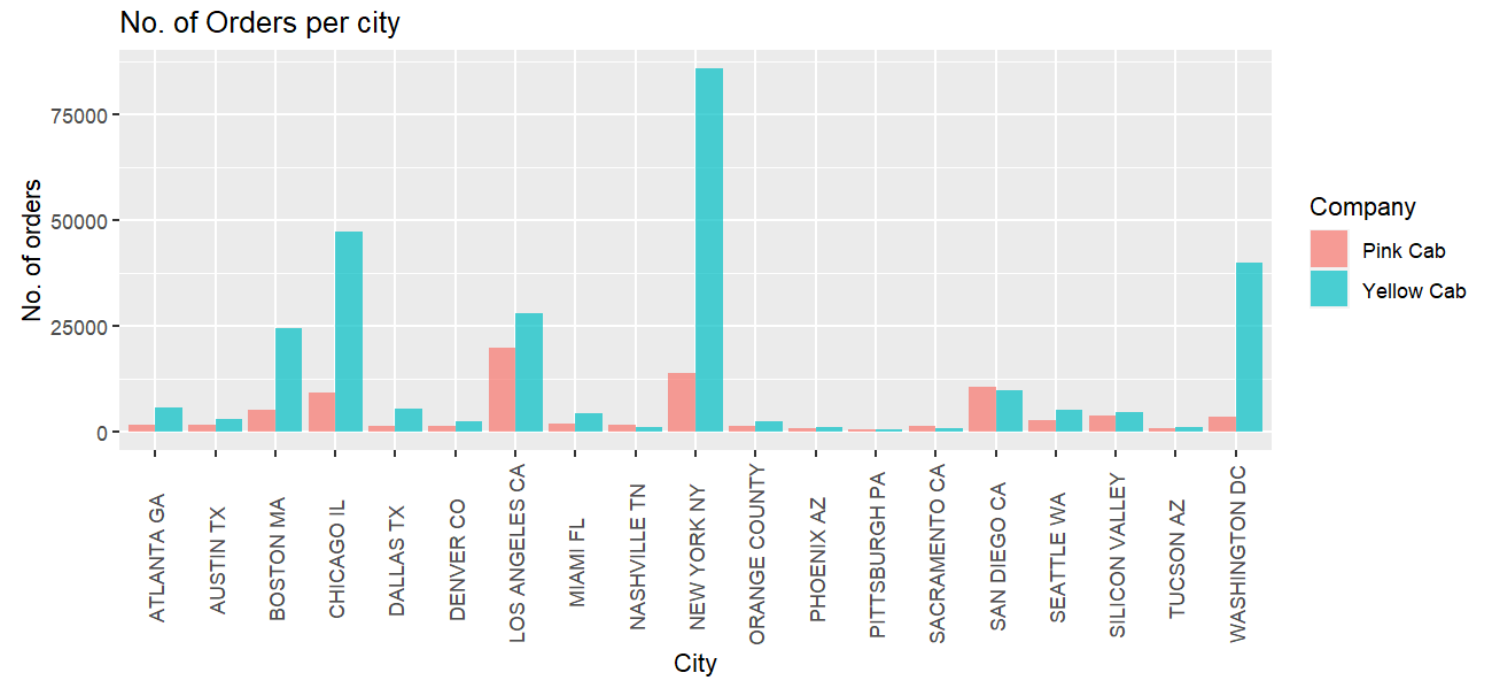
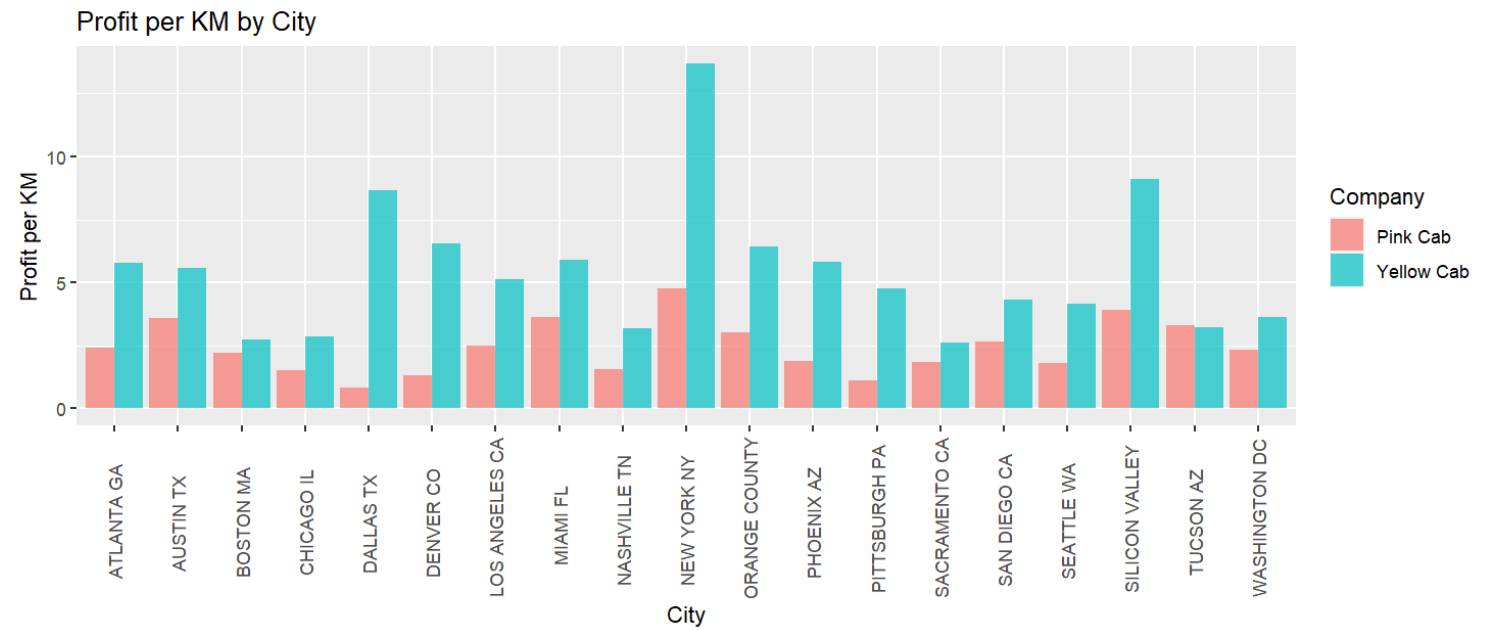
Gender



1. Two firms' customers have nearly the same proportion of two genders, but the total revenue gap is huge. Clearly the total revenue of yellow cab company is much higher than that of pink cab company.
2. There were slightly more male customers than female, and more profits provided by male, and both companies showed the same pattern.

City

1. There were four cities in which pink cab company received more orders than yellow cab company, all of which had smaller populations.
2. Only in one city did pink cab make more profit per km than yellow cab company.
3. It can be inferred that the yellow cab company has a large customer reserve, and the company has a certain influence in various cities.
4. It can be inferred that single km pricing of pink cab company is lower than yellow cab, which is easy to attract customers in some cities.



Conclusion & Recommendations

- 1. Each company has a similar customer structure, with nearly the same proportion of age, gender and income structure.
- 2. Yellow cab company started early, compared with pink cab company, it has more abundant customer resources and reserves, and has a high influence in various cities.
- 3. Yellow cab company has far more orders than pink cab company, and the profit per km is much higher in most of the cities.
- 4. Yellow cab company has a strong presence in large cities and are more established than pink cab company.
- Therefore, for the above reasons, yellow cab company has less investment risk and greater profit potential. Consequentially, I suggest to invest yellow cab company.

Thank You