Exploratory Data Analysis

G2M insight for Cab Investment firm

21/06/2021

Agenda

Data Glacier
Your Deep Learning Partner

The Objective:

Recommend a company for the investor to invest in.

The Procedure :

Analyse the companies' users, demand and its potential and find out which company would be a better investment

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.

But with the two leading cab companies, which one should the investors pick?
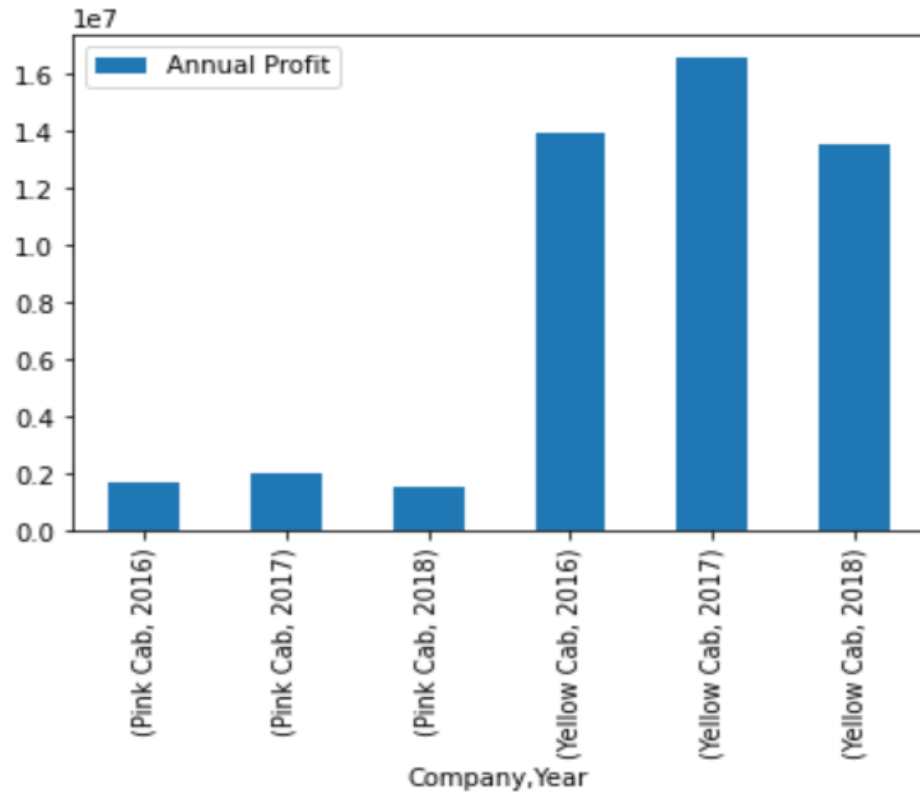
The Yellow Cab or The Pink Cab?

To make sure we make the correct decision we need to analyse the data properly.
I started off by loading the CSV files provided into a Jupyter notebook and started merging the relevant files together to form a single master data frame to preform the analysis on. I have also added a calculated 'Profit' column by subtracting the Cost of Trip from the Price Charged and changed the data type for the Date of Travel. After checking for Null values, my data frame was in perfect condition to start the analysis.
The data analysis consisted of:
• Calculating the profits for both companies, the Yellow Cab and the Pink Cab, annually and monthly.
• Checking which company has more demand per city
• The cost of the trip per KM for each company
• How much percentage the users spend out of their income on the cabs for each company
• The gender of the users for each company
• The payment methods for the users for each company

Annual Profit for both companies:

Monthly Profit for both companies:
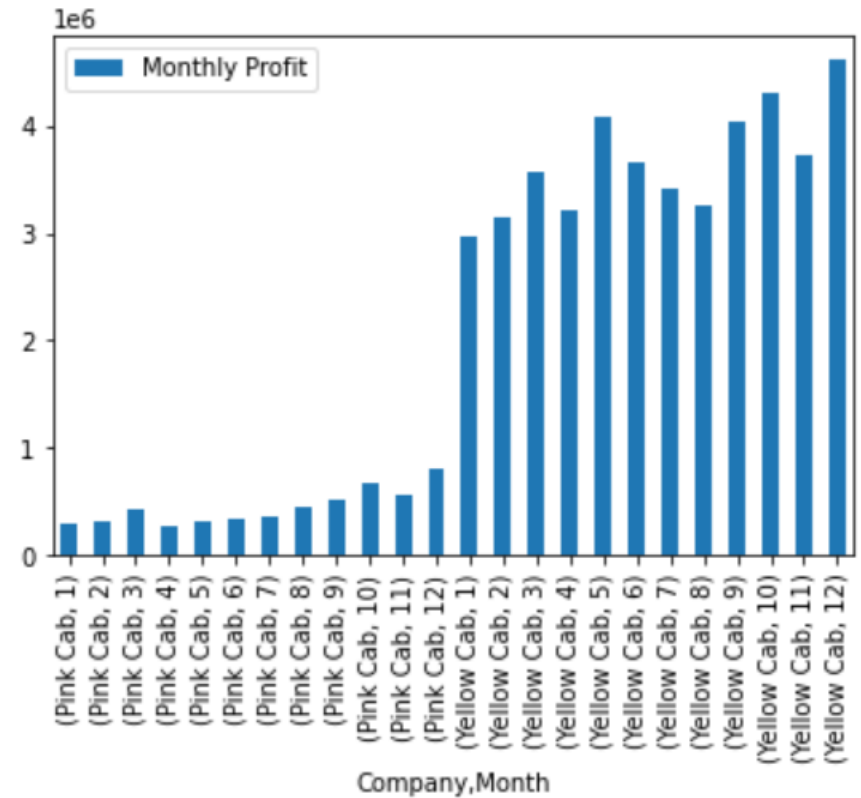
We Can clearly see that the Yellow Cab is earning more profit than the Pink Cab

Demand Per City for both companies:

The Yellow Cab has more demand per city, Especially in cities such as New York and Chicago.

EDA – Cost of the Trip

The cost of the trip per KM for Yellow Cab:

Cost of Trip

Company	KM Travelled	
Yellow Cab	2	25
	2	25
	2	26
	2	26
	2	26
	...	...
	46	613
	47	619
	47	624
	48	629
	48	636

The cost of the trip per KM for Pink Cab:

Cost of Trip

Company	KM Travelled	
Pink Cab	2	21
	2	21
	2	21
	2	22
	2	21
	...	...
	46	515
	47	511
	47	520
	48	529
	48	528

The data shows that the Pink Cab company costs less.

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The percentage of money users spend on cabs out of their income

Price Charged

Company	Customer ID	Income (USD/Month)	
Yellow Cab	1	16359	608
	2	12069	622
	3	12968	549
	4	13803	630
	5	9965	741
	...	...	...
	59996	16634	201
	59997	22352	390
	59998	5678	377
	59999	24577	292
	60000	20303	338

Price Charged

Company	Customer ID	Income (USD/Month)	
Pink Cab	1	16359	571.6200
	2	12069	398.6775
	3	12968	475.7700
	4	13803	562.6400
	5	9965	284.0875
	...	...	...
	59995	21184	95.1550
	59997	22352	483.6750
	59998	5678	467.3900
	59999	24577	305.5050
	60000	20303	459.1875

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The average for the Yellow Cab: 0.01195487096419384
The average for the Pink Cab: 0.057197293310462055
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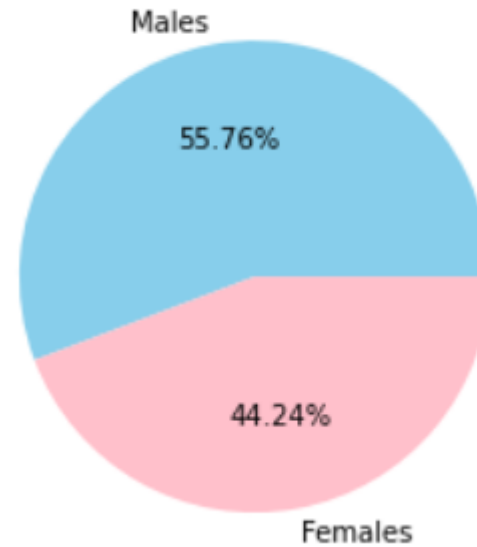
The percentage of each gender for Yellow Cab: **The percentage of each gender for Pink Cab:**
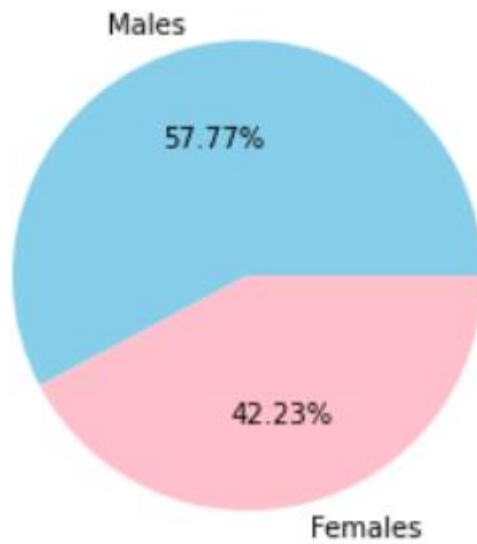
According to the data, more women use the Pink Cab

EDA – Payment Methods

The Payment Methods for Yellow Cab:

The Payment Methods for Pink Cab:

Payment Method for Yellow Cab

Cash 59.99%

Card 40.01%

Payment Method for Pink Cab

Cash 59.87%

Card 40.13%
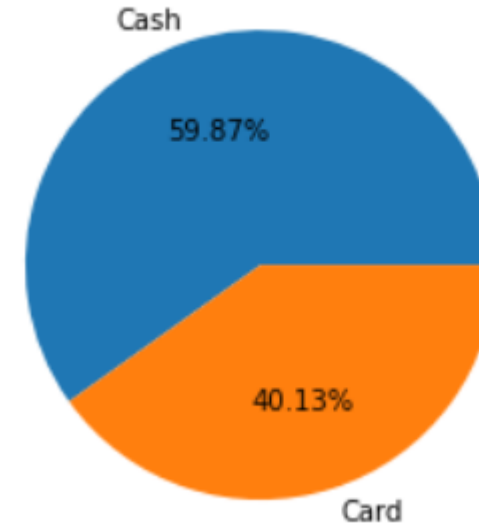
According to the data, the most used payment method is Cash for both companies

EDA Summary

1. The Yellow Cab profited approximately 8 times more than the Pink Cab from 2016-2018, with a noticeable increase during the holidays
2. Yellow Cab dominates more cities than the Pink Cab. However, Pink Cab is cheaper for the user
3. The Yellow Cab is earning more profit than the Pink Cab in cities such as New York and Los Angeles
4. Women are more likely to be the customers of the Pink Cab.
5. The majority of users preferred to use card as a payment method in both companies

Due to the strong evidence and data, we highly recommend the Yellow Cab company to invest in.

Thank You