

EXPLORATORY DATA ANALYSIS

G2M insight for Cab Investment firm

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EXECUTIVE SUMMARY

Title:

Market Analysis for XYZ's Cab Industry Investment

Problem Statement:

In light of the rapid growth and competition within the Cab Industry, XYZ, a private firm in the United States, is faced with the critical decision of selecting the most promising cab company for investment as a part of their Go-to-Market (G2M) strategy. This decision carries significant financial implications; thus, XYZ requires a comprehensive analysis to make an informed choice.

Scope:

- Data from January 31, 2016, to December 31, 2018.
- Four data sets: Cab_Data.csv, Customer_ID.csv, Transaction_ID.csv, City.csv.

APPROACH

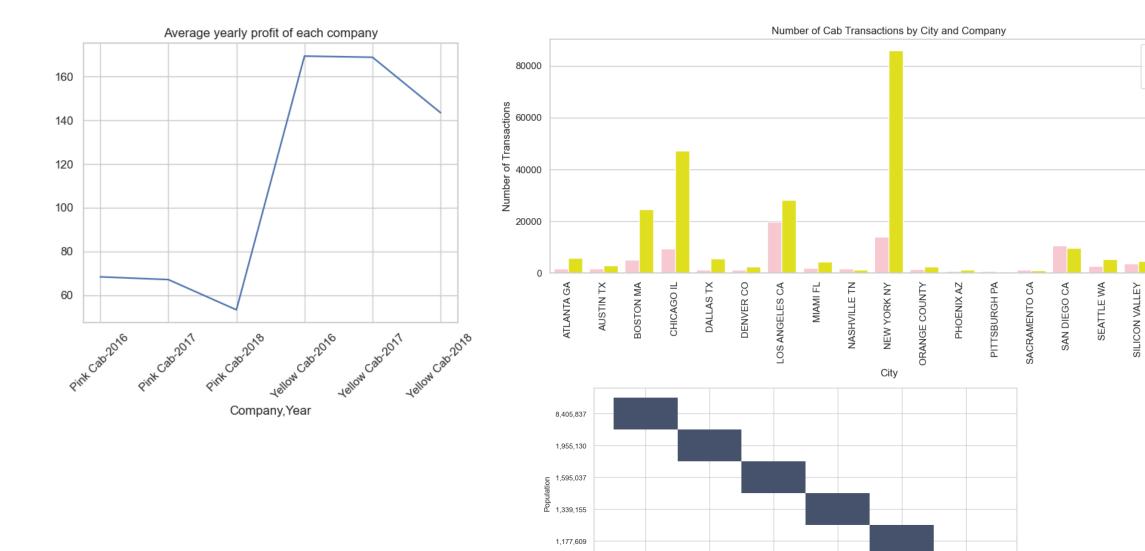
- Data investigation including source documentation review.
- Identifying the relationship between files.
- Merging the files to create master data.
- Identifying missing and duplicate values.
- Descriptive analysis Univariate (one variable)
- Performing correlation analysis Bivariate(two variables)
- Visualising the data to find insights.
- Recommendations.

EXPLORATORY DATA ANALYSIS

The first 5 values of the dataset

Out[5]:

	Transaction ID	Customer ID	Payment_Mode	Gender	Age	Income (USD/Month)	Date of Travel	Company	City	KM Travelled	Price Charged	Cost of Trip
0	10000011	29290	Card	Male	28	10813	08-01-2016	Pink Cab	ATLANTA GA	30.45	370.95	313.6350
1	10351127	29290	Cash	Male	28	10813	21-07-2018	Yellow Cab	ATLANTA GA	26.19	598.70	317.4228
2	10412921	29290	Card	Male	28	10813	23-11-2018	Yellow Cab	atlanta Ga	42.55	792.05	597.4020
3	10000012	27703	Card	Male	27	9237	06-01-2016	Pink Cab	atlanta Ga	28.62	358.52	334.8540
4	10320494	27703	Card	Male	27	9237	21-04-2018	Yellow Cab	atlanta Ga	36.38	721.10	467.1192



1,030,185

NEW YORK NY

CHICAGO IL LOS ANGELES CA

MIAMI FL

SILICON VALLEY ORANGE COUNTY

Company

Yellow Cab

WASHINGTON DC

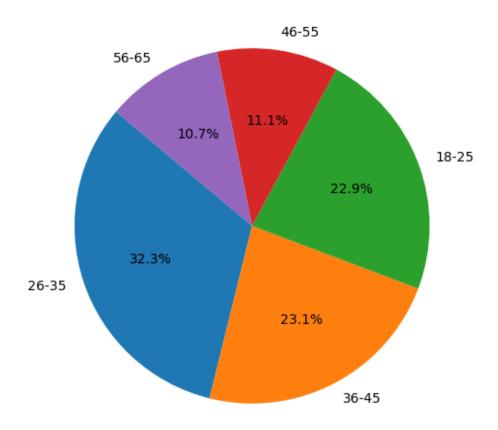
TUCSON AZ

Pink Cab

Customer Segment



Age Group Distribution



EDA SUMMARY

- There are no missing or duplicate values which indicates a clean dataset.
- A positive correlation between kilometres travelled, the price charged and the cost of the trip was found during the data analysis.
- The cab companies have seen the maximum number of customers during November and December.
- The yellow cab has a higher average profit compared to the pink Cab in the years 2016 and 2017.
- Margin proportionality does not increase with the number of customers. These variables have a moderate negative correlation.
- The highest profit was recorded in February and May, least was recorded in December.
- The majority of the cab users are in the age range 26-35.
- The choice of cab company affects the price charged even though both the cab companies' minimum prices are relatively lower. The maximum price charged by the yellow cab is 2048.03 and the pink can company is 1623.48.
- The income does have an effect on the number of customers, from the graph we can infer that people with income more than 25000 are less likely to be a cab user compared to people with income below that.

RECOMMENDATIONS

Peak Demand Handling: Given the peak demand during holidays and cold weather in November and December, we recommend considering Yellow Cab Company. They have demonstrated efficient management of increased demand during these periods.

Strong Customer Volume: Yellow Cab excelled in 2017 in terms of customer volume, indicating its ability to withstand high demand. Consider them for future investment.

Profitability: Yellow Cab showed higher average profits in 2016 and 2017, suggesting a potentially more lucrative investment.

Diverse Pricing: With a wider and more flexible pricing range, Yellow Cab can cater to a broader customer base, making it an attractive investment option.

Gender-Neutral Approach: Customer behaviour is not influenced by gender, making a gender-neutral marketing strategy favourable for both cab companies.

Market Share: Investing in Yellow Cab in New York offers significant market share potential in a densely populated city, promising high customer volume and potential profits.

Conclusion: Based on the analysis, we recommend Yellow Cab Company for investment, considering its profitability, market share potential, and ability to handle peak demand effectively.

Thank You

