Exploratory Data Analysis

G2M insight for Cab Investment firm

21/05/2023

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EDA Summary

Recommendations

Data Glacier
Your Deep Learning Partner

Executive Summary

The remarkable growth in the Cab Industry in the last few years and the existence of multiple key players in the market have not gone unnoticed by XYZ firm who wants to make an investment.

As a result, XYZ firm wants to have a better understanding of the market to make investment decisions with conviction.

Data Glacier
Your Deep Learning Partner

Problem Statement

OBJECTIVE = Provide valuable insights and a recommendation to assist XYZ firm in finding the best investment opportunity

Approach

Steps:

1. Changed the data type of fields.

2. The Transactions ID field has no duplicate values so I used it as join key.

3. I merged the Cab_Data.csv with the Transaction_ID.csv on the Transaction ID field.

4. I then merged the result of that with the Customer_ID.csv on the Customer ID field; thus creating the master dataset.

5. I used a data tool in Excel called Remove Duplicates and selected the join key range of values. The returned result was that there are no duplicates. Since I created a master data ensuring the join key has no duplicates is sufficient to use the data for analysis.

EDA

- The Yellow Cab firm has a profit margin of 34.98% whereas the Pink Cab firm sits at 20.16%

- The Yellow Cab has 4.78 times the sales of the Pink Cab

- The Yellow Cab firm has 8 times more profit than the Pink cab every single year

- There is strong seasonality in the profits generated by both firms around Q4

- Profit margins are decreasing year-on-year regardless of the increase or decrease in the number of customers served.

EDA Summary

The changes in profit margin are not a direct effect of the change in total clients served. This means that the profit margin does not proportionally increase or decrease with the increase or decrease in the number of clients. The two are not correlated and no conclusion on the effect of one on the other can be clearly drawn.

Recommendations

I recommend investing in the Yellow Cab firm for the following reasons:

1. The profit forecast for the following year (2019) for the Yellow Cab firm is higher compared to the Pink Cab firm profit forecast.

2. With $38713045 more in profit (2016-2018) than the Pink Cab firm, the Yellow Cab firm has got a bigger budget, therefore it is financially more stable.

3. The Yellow Cab firm earns more per KM in the cities with the highest demand for cab services than the Pink Cab firm.

4. Despite charging more per km the Yellow Cab firm has got more clients than the Pink Cab firm which could be a reason why it has more transactions.

G2M insight for Cab Investment firm

Thank You