Project Meeting Minutes 2 - Week 3 & 4

Project Name: Multi Mart Revenue forecasting

Below is the summary of the analysis/visualization project we completed in 3rd semester.

The project focused on visualizing and analyzing sales and revenue data of Multi Mart Retail store spanning the period of 2019 to 2023. The primary objective was to provide a comprehensive understanding of sales performance, revenue generation, and customer behavior analysis to support informed decision-making, particularly regarding the potential expansion of its Loyalty Card program into new regions.

Git Hub Project Repository: DAB_Grp7_Capstone_Project

Week 3 and Week 4 Minutes of meeting are as follows:

Week 3:

Alisha James

- Analyzed all the features in the data set to identify all use cases related to revenue,frequency & totalpurchases prediction
- Worked on correlation matrix to identify correlation between all the existing numerical columns.
- Insights based on the above correlation.

Ikram Patel & Sujata Biswas

- Converted below text columns to numerical using label encoding.
    - referralsource
    - responsetolastcampaign
    - preferredpaymentmethod
- Worked on data transformation and created below new columns from existing columns.
    - avgpurchasevalue
    - tenure
    - Recency
    - avgtimebetweenpurchases
- Identified new correlation using the above newly created and converted columns.

Gayathri Manju Jayasena Kurup

- Performed detail analysis and identified correlation in the Sales data set shared by the professor which consists of below columns
    - ProductID
    - Date
    - Zip
    - Units

    - Revenue
    - Country
- Correlation Identified only between Units and Revenue column.

Group Work

- Attached is the analysis document attached.
    - Grp7_Draft_Analysis_doc.docx

Week 4:

Date and Time	Location	Attendees	Professor
30th Jan'24 Tuesday 10:00 AM – 10:30 AM	In person meeting	Alisha James (0811919) Gayathri Manju Jayasena Kurup (0836679) Ikram Patel (0822315) Sujata Biswas (0832706)	Abiodun Sodiq Shofoluwe

Discussion: Following points were discussed as part of the above meeting

- Below points were discussed as per the analysis performed in the attached document above.
- A good correlation of 48% was observed between Totalpurchases – frequency, so these two can be used as part of model to identify total purchases made by a customer.
- Variables need to be identified to look for predictions of total purchases.
- There is also a negative correlation observed between Totalpurchases – Avgpurchasevalue, which can be looked into.
- One Hot encoding of columns is suggested instead of label encoding for below columns
    - referralsource
    - responsetolastcampaign
    - preferredpaymentmethod
- Categorize the totalpurchases into three categories High/Medium/low and predict the total purchases of High category customers to get the totalpurchases prediction for the store.
- Identify correlation between churn indicator and the above new categories.
- Potential number of customers fall into which categories of totalpurchases and target the ones in High category to predict the overall store revenue.
- Feature importance analysis to identify the features which are important as part of this prediction.

Next Meeting schedule: 6th Feb'24, Tuesday