Data Glacier Group Project: Retail Forecasting

Team Member Details:

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Problem Description:

The large company which is into beverages business in Australia. They sell their products through various super-markets and also engage into heavy promotions throughout the year. Their demand is also influenced by various factors like holiday, seasonality. They needed a forecast of each of the products at item level every week in weekly buckets.

Data Understanding:

Product: Product id
date: date of sales
Sales **:** sales amount
Price Discount (%): percentage of discount applied to sales
In-Store Promo: whether or not if there was in store promotion
Catalogue Promo: whether or not if there was catalog promotion
Store End Promo: whether or not if there was an end date to a promotional period
Google_Mobility: anonymized measurement of people's movements surrounding the products
Covid_Flag: whether or not if there was Covid to worry about on that day > during the lockdown or not
V_DAY: whether or not if it was valentine's Day
EASTER: whether or not if it was Easter

CHRISTMAS: whether or not if it was Christmas > no = 0, yes = 1

What type of data you have got for analysis

This is a sales data for the company from Feb 5, 2017 to December 27, 2020. It has the sales amount for the day, date, product id, whether or not it was a holiday or not, etc.

What are the problems in the data (number of NA values, outliers , skewed etc)

There are no missing or duplicate values. There seems to be some outliers in the “Sales” column.

What approaches are you trying to apply on your data set to overcome problems like NA value, outlier etc and why?

For the outliers, I might have to remove them. However, I’m assuming that the outliers are because of the holiday sales. And in that case I might leave them in especially since there are only a little over 1200 rows.

Github Repo Link:

https://github.com/KierraDangerfield/Data-Glacier/tree/main/Week_8