

PowerBI Dashboard: Link for Dashboard

Observations for each feature (Factors affecting Sales): Univariate Analysis

- 1. **IsHoliday**: Out of total weeks only 10 weeks were holiday weeks including Christmas and Thanksgiving when sales were maximum.
- 2. **Stores**: Total stores are 45 and maximum revenue is coming from store 4 and 20 which are of type A.
 - a. Types: There are 3 types of stores A,B and C.
 - b. Size: Based on Size, Type A stores are bigger in size and contribute around 64% to total revenue. Type C stores are smaller in size. Only 6 stores are of Type C and contribute around 6% to total revenue.
- 3. **Department**: More the departments in a store, maximum the sales.
- 4. **Temperature**: Not much impact on sales.
- 5. MarkDown: (Markdown 1-5) Since more than 50% of values are missing, not able to conclude anything.
- 6. **Size**: Bigger the size of the store, maximum the sales.
- 7. **Fuel Price**: Not much impact on Sales.
- 8. **Unemployment**: Less unemployment, more Sales or Vice-versa.
- 9. **CPI**: More the CPI, more sales or Vice-versa.
- 10. Sales: Maximum Sales occur during Christmas week and Thanksgiving week for both years.

Also, using PowerBI analytics tried to forecast sales for 10 coming weeks using 95% confidence intervals. (Line Chart)

Bivariate Analysis:

1. Unemployment and CPI: Both are negatively correlated. As unemployment decreases, CPI increases because the purchasing power of customers increases.

Multivariate Analysis:

- 1. Unemployment, Sales and Type of Store: Due to more unemployment near Type C stores, sales are less. Because of less purchasing power.
- 2. CPI, Sales and Type of Store: Due to an increase in CPI near Type A stores, sales are more.

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