Sales Dashboard Link:
https://app.powerbi.com/view?r=eyJrIjoiNWU5NzE1OGYtODE4NS00YTlmLTg1NjQtMjA5ZjU3ZDY3MTBiIiwidCI6IjEwMWEyNWRkLTFiZGYtNGJiZS05NzQ1LTRjZGYyNzkzYWY5MSJ9

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Sales Dashboard/Business Problem

1. **The Objective of the Sales Dashboard / Business Problem**

The objective of the report is to analyze and present comprehensive insights into sales, profit, orders, profit margin, and various comparisons. It aims to provide a clear understanding of key performance indicators and trends using Power BI. The report objectives can be summarized as follows:

1. Calculate Total Sales: Calculated and display the total sales value for the selected period, allowing users to understand the overall revenue generated.
2. Calculate Profit: Calculated and visualize the total profit achieved based on the sales data, providing insights into the financial performance.
3. Analyze Orders: Analyzed the number of orders placed during the selected period, helping to identify sales patterns and order trends.
4. Calculate Profit Margin: Calculated and visualize the profit margin percentage, enabling users to assess the profitability of products or services.

5. Compare Sales by Product with Previous Year: Compared sales performance for each product between the selected period and the previous year, highlighting growth or decline in sales.
6. Compare Sales by Months with Previous Year: Compared sales performance across different months between the selected period and the previous year, identifying regions with significant changes.
7. Display Top 5 Cities: Presented a visualization showcasing the top 5 cities based on sales, allowing users to quickly identify the most lucrative locations.
8. Compare Profit by Channel with Previous Year: Compared profit generated by each channel between the selected period and the previous year, indicating improvements or challenges in profitability.
9. Analyze Sales by Customer and Compare with Previous Year: Analyzed sales data by customer, highlighting the performance of individual customers and comparing it to the previous year.
10. Create Slicers for Date, City, Product, and Channel: Enable users to interact with the data by providing slicers for selecting specific dates, cities, products, and channels, allowing for dynamic filtering and personalized analysis.

2. Steps to follow for an end-to-end Power BI Project

2.1) Gather Data: Collect the necessary data for my project. Ensure the data was accurate and relevant for my objective.

2.2) Power Querry – Data Extract, Transform & Load: Made Used of Power Query Editor to Clean and transform the data to make it suitable for analysis. Checked for duplicates, missing values, merging datasets, and creating calculated columns.

2.3) Create a Date Table: Created a Date Table using a DAX (Data Analysis Expressions)

```
DateTable =
ADDCOLUMNS (
    //CALENDAR(DATE(2020,1,1), DATE(2024,12,31)),
    CALENDARAUTO(),
    "Year", YEAR([Date]),
    "Quarter", "Q" & FORMAT(CEILING(MONTH([Date])/3, 1), "#"),
    "Quarter No", CEILING(MONTH([Date])/3, 1),
    "Month No", MONTH([Date]),
    "Month Name", FORMAT([Date], "MMMM"),
    "Month Short Name", FORMAT([Date], "MMM"),
    "Month Short Name Plus Year", FORMAT([Date], "MMM,yy"),
    "DateSort", FORMAT([Date], "yyyyMMdd"),
    "Day Name", FORMAT([Date], "dddd"),
    "Details", FORMAT([Date], "dd-MMM-yyyy"),
```

```
    "Day Number", DAY ( [Date] )
)
```

2.4) Create Data Model in Power BI Desktop: Design and created a data model that represents the relationships between different tables in the data. Establish proper relationships, define keys, and establish hierarchies.

2.5) Develop Reports in Power BI Desktop: Used Power BI Desktop application to create reports based on the data model. Added visualizations such as charts, tables, and maps to represent the data effectively. Apply filters, slicers, and drill-through functionalities to allow users to interact with the data.

Create Report Background in PowerPoint

Create Slicers – Date, City, Product, and Channel

Create Dax measures

Create Visuals:

Sales By Product and Comparing it with last year's Sales.
Sales By Month and Comparing it with last year's Sales.
Sales of top 5 Cities
Compare Profit by channel with Previous year's Profit
Sales By Customer and Comparing it with last year's Sales
Create Cards for Sales, Profit, Profit Margin & Product Sold
Implementing DAX Calculations

Made used Data Analysis Expressions (DAX) to create calculated columns, measures, and calculated tables to perform complex calculations and aggregations. DAX is a powerful formula language that allows you to manipulate data within Power BI.

//Measures Total Sales

Sales = SUM(Sales_Data[Sales])

//Measures Previous Year Toal Sales

Sales PY = CALCULATE([Sales], SAMEPERIODLASTYEAR(DateTable[Date]))

//Diffrence Between Current Year Sales & Previous Year Sales

Sales vs PY = [Sales] - [Sales PY

//Percentage Increase or Decrease in sales year on year (YOY%)

Sales vs py % = DIVIDE([Sales vs PY],[Sales],0)

>> Products Sold = SUM(Sales_Data[Order Quantity])

>> Profit = SUM(Sales_Data[Profit])

>> Profit LY = CALCULATE([Profit], SAMEPERIODLASTYEAR(DateTable[Date]))

>> Profit Vs LY = [Profit]- [Profit LY]

>> Profit vs LY % = [Profit Vs LY]/[Profit]

>> Profit Margin = DIVIDE([Profit],[Sales],0)

>> Total Cost = SUM(Sales_Data[Total Cost])

3. Conclusion

Conclusion for the year 2019:

Sales decreased by more than 10%.

There is a drop in sales of all the top 7 Products.

4 Customers are leading to a drop in sales.

The profit margin in the Export channel is higher.