

Problem Statement:

Greetings Divyansh (Data Analyst Intern at MAS),
I hope you are doing well.

We need to improve our internet sales reports and want to move from static reports to visual dashboards. Essentially, we want to focus on how much we have sold of what products, to which clients and how it has been over time. Seeing as each sales person works on different products and customers it would be beneficial to be able to filter them also. We measure our numbers against budget so I added that in a spreadsheet so we can compare our values against performance. The budget is for 2024 and we usually look 2 years back in time when we do analysis of sales. Let me know if you need anything else!

Project Explanation: Internet Sales Analysis Dashboard

Objective: The primary goal of this project was to transition from static sales reports to an interactive and dynamic visual dashboard. The focus was on analyzing internet sales, tracking product performance, customer interactions, and comparing actual sales against the budget for the year 2024, while considering historical data from the previous two years.

Data Sources and Preparation:

1. Data Import:

- Multiple data sources were integrated, including product, customer, and sales data.
- CSV Files:** Data was extracted from CSV files (`DIM_Products.csv`, `DIM_Customers.csv`, `DIM_Calendar.csv`, and `FACT_InternetSales.csv`), providing essential dimensions and fact tables.
- SQL Queries:** SQL scripts were used to transform and aggregate data from raw tables (`DIM_Products.sql`, `DIM_Customers.sql`, `DIM_Calendar.sql`, and `FACT_InternetSales.sql`).

2. Budget Comparison:

- The budget data for 2024 was provided in the Excel file (`Sent Over Data - SalesBudget.xlsx`). This data was integrated into the model to enable performance comparison against budgeted values.

Data Transformation and Modeling:

- Data was transformed and aggregated using SQL to ensure that it aligned with the analysis requirements. The fact table (`FACT_InternetSales`) was connected to dimension tables (`DIM_Products`, `DIM_Customers`, `DIM_Calendar`) to create a comprehensive data model.
- Key metrics such as total sales, sales by product, and sales by customer were calculated, with additional measures to compare actual sales against the budget.

Dashboard Design:

- **PowerBI Report (Sales Report_Finished.pbix):**
 - An interactive dashboard was designed using PowerBI to visualize sales data over time.
 - The dashboard includes filters for different products, customers, and salespersons, allowing users to drill down into specific details.
 - Trend analysis was performed to understand how sales have evolved over the past two years, providing insights into seasonal patterns and product performance.
 - A budget vs. actual performance comparison was visualized, highlighting areas where the sales figures met or exceeded expectations.

Outcome: The final deliverable is an interactive PowerBI dashboard that provides MAS with a comprehensive view of internet sales. The ability to filter and drill down into the data allows for a more detailed and actionable analysis, enabling better decision-making and strategic planning for the company.

This project successfully met the objective of moving from static reports to a more dynamic and insightful approach to sales analysis.