Power BI Sales Report Project Documentation

Project Overview

The Power BI Sales Report Project aims to provide a comprehensive analysis of sales performance across different regions, managers, couriers, and clients. The report includes interactive visuals and key performance metrics, enabling stakeholders to track sales trends, plan fulfillment, and year-over-year growth effectively.

Project Requirements and Tasks

1. Data Visualization Requirements

- **Slicer Visuals:** Created separate slicers for:
    - Year
    - Month
    - Manager
    - Courier
- **Gauge Visuals:** Developed for Azerbaijan, Baku, and other regions displaying:
    - Total sales
    - Total plan
    - Plan achievement rate
- **Table Visual:** Showcased total sales amounts, total plan amounts, and plan achievement rates for clients.
- **Line and Clustered Column Visual:** Displayed total sales, total plan, and plan achievement rate for:
    - Managers
    - Couriers
- **Card Visuals:** Provided key metrics, including:
    - Total sales
    - Total sales for the same period last year
    - Total sales of the last month
    - Monthly growth rate
    - Year-over-year (YoY) sales growth rate
    - Number of clients
- **Matrix Visual:** Displayed total sales, total sales for the same period last year, and YoY growth rate for:
    - Managers
    - Couriers
    - Clients
- **Line Chart:** Compared YoY sales trends for the top 10 cities based on total sales.

- **Line and Clustered Column Chart:** Illustrated total sales, total sales for the same period last year, and YoY growth rate for months.

Data Processing & Transformation

1. Data Extraction & Cleaning

- **Client Data:** Imported from the "Client Data" PDF file and cleaned using Power Query:
    - Appended queries
    - Promoted headers
    - Renamed columns
- **Sales Data:** Imported from "Sales Data" Excel file and processed using Power Query:
    - Removed top rows
    - Promoted headers
    - Changed data types
    - Appended queries
    - Renamed columns
- **Plan Data:** Imported from "Plan Data" Excel file and cleaned using Power Query:
    - Removed top rows
    - Promoted headers
    - Changed data types
    - Renamed columns

2. Data Modeling & Relationships

- Created relationships between tables in the **Model View**.
- Built a **Calendar Table** using the following DAX function:
- Calendar = CALENDARAUTO()
- Created a **#Measures Table** to store calculated measures.

Key Measures & Calculations

Measure Name	DAX Formula	Description
Total Sales	SUM('Sales data'[Sales])	Calculates total sales.
Total Plan	SUM('Plan data'[Plan])	Calculates total planned sales.
Plan Achievement	[Total Sales]/[Total Plan]	Computes plan achievement rate.

Measure Name	DAX Formula	Description
Sales LM	CALCULATE([Total Sales], DATEADD('Calendar'[Date], -1, MONTH))	Retrieves total sales from the last month.
Sales SPLY	IF(ISBLANK([Total Sales]),BLANK(),CALCULATE([Total Sales],SAMEPERIODLASTYEAR('Calendar'[Date])))	Retrieves total sales for the same period last year.
Monthly Growth Rate	[Total Sales]/[Sales LM] - 1	Calculates month-over-month growth.
Gauge Max	[Total Plan] * 1.25	Sets maximum gauge value at 125% of the target for better visualization.
Sales YOY	[Total Sales] - [Sales SPLY]	Computes YoY sales change.
YOY Growth Rate	IF(ISBLANK([Total Sales]),BLANK(),DIVIDE([Sales YOY],[Sales SPLY],0))	Calculates YoY growth percentage.

Dashboard Implementation

After preparing the data and defining key measures, the following visuals were developed to provide insights:

- **Slicers:** Enabled users to filter data dynamically by year, month, manager, and courier.
- **Gauge Charts:** Provided a clear representation of sales performance across different regions.
- **Tables & Matrices:** Displayed detailed performance metrics for clients, managers, and couriers.
- **Card Visuals:** Offered quick insights into key sales metrics.
- **Line Charts:** Highlighted YoY trends and top-performing cities.
- **Clustered Column Charts:** Compared monthly sales and YoY performance.

Conclusion

This Power BI sales report successfully delivers an interactive and insightful dashboard that helps track sales performance, measure plan fulfillment, and analyze YoY growth. The combination of slicers, gauge visuals, tables, and charts ensures stakeholders can make data-driven decisions efficiently.