

Sales Performance & Customer Analytics Dashboard - Report Explanation

Project Overview

This project presents an end-to-end Power BI dashboard built using the Superstore Sales Dataset (sourced from Kaggle). The goal was to create an interactive and insightful business intelligence solution that highlights key sales metrics, customer behavior, shipping patterns, and profitability across various business segments.

Objectives

- Analyze sales and profit trends over time (YoY, QoQ)
 - Identify top-performing regions, categories, and products
 - Segment customers based on sales/profit behavior
 - Evaluate shipping performance and discount impact
 - Provide executive-level summary and deep-dive analytics per dimension
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Tools & Technologies

- **Power BI Desktop**
 - **DAX** for custom KPIs, YoY/QoQ logic, profit margin, dynamic titles
 - **Custom JSON Theme** to maintain metric-specific branding
 - **Bookmarks, Slicers, Conditional Formatting, Forecasting, Tooltips**
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Report Structure & Pages

Page	Description
Home	High-level summary with navigation buttons and top KPIs
Executive Summary	Overall sales/profit view with YoY % change and KPI cards
Regional Insights	Region-wise breakdown of performance over time
Sales & Profit Trends	Monthly and yearly trends for core business metrics
Product Performance	Visual analysis by category, sub-category, and top products
Shipping Analytics	Mode-wise sales, quantity, and profit analysis
Orders Overview	Order trends by weekday and discount brackets

Page	Description
Customer Analysis	Drilldown page for customer-specific performance
Decomposition Tree	Root cause exploration of profit drivers
Top 10 Metrics	Toggle-based bar charts for top products by multiple KPIs






Key Metrics & DAX Logic

- **Total Sales / Profit / Quantity:** Basic aggregation
- **Profit Margin:** `DIVIDE([Total Profit], [Total Sales], 0)`
- **YoY % Change:** `DIVIDE([This Year] - [Last Year], [Last Year], 0)`
- **Customer Type:** Categorization based on total sales with conditional icon and profit color
- **Top 10 Products:** Built using `RANKX` with a disconnected metric selector
- **KPI Cards:** Show key figures with green/red coloring based on business rules

Insights & Observations

- The **Technology** category drives the highest sales and profit margin
- **Standard Class** is the most used and most profitable shipping mode
- High discounts often result in **negative profit**, despite higher order volume
- Most customers fall in the **Average Value** tier, with <15% being High-Value
- **West** and **East** regions outperform others consistently

Advanced Features

-  Dynamic Customer Profile with slicer + conditional messages
-  Custom Icons and Conditional Text Color for KPI insights
-  JSON-based Theme with standardized colors for sales, profit, margin
-  Forecasting with confidence intervals for trend analysis
-  Play Axis and Decomposition Tree for exploratory analysis

What I Learned

- Structuring a multi-page report with consistent UX
- Writing clean, reusable DAX for metric comparisons and toggles
- Implementing advanced features like `RANKX`, `SAMEPERIODLASTYEAR`, `PARALLELPERIOD`
- Using custom themes and conditional formatting to align design with insights

Next Steps / Possible Improvements

- Add row-level security (RLS) to limit customer-level views
 - Connect to a live or refreshable data source
 - Add commentary text visuals for auto-insight generation
 - Deploy the report to Power BI Service with user access roles
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About Me

Name: Rahul

Role: Data Analyst | Power BI Developer

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Thank you for reviewing this report. I built this project to demonstrate strong Power BI fundamentals, storytelling with data, and dashboard engineering.