

Title: Sales Analytics Dashboard for Retail Chain

Business Context:

A retail company operating across various regions in the United States wants to gain insights into its **sales performance**, **customer behavior**, and **product demand**. The management has provided a dataset containing **10,000 records** with key order details, customer information, product categories, sales, discount, profit, shipping cost, and product rating.

The goal is to build a **dynamic dashboard using Microsoft Power BI** that helps decision-makers answer important business questions and make data-driven decisions.

Dataset Overview (CSV File Provided)

Fields Included:

- Order ID
- Order Date
- Ship Date
- Customer ID
- Customer Name
- Segment
- Region
- City
- State
- Product Category
- Sub-Category
- Product Name
- Sales
- Quantity
- Discount

- Profit
- Shipping Cost
- Product Rating

Business Objectives:

- Identify top-performing products and regional markets.
- Evaluate customer segments and profitability.
- Analyze shipping performance and delivery timelines.
- Understand the impact of discounting on profit.
- Monitor customer satisfaction via product ratings.

Task List

1. **Import the dataset** (retail_sales_data_10000_extended.csv) into Power BI and inspect the data types.
2. **Create a Date Table** and build relationships with Order Date and Ship Date.
3. **Clean the data:** Ensure all date and numeric fields are correctly typed and formatted.
4. **Create DAX Measures** for:
 - Total Sales
 - Total Profit
 - Average Discount
 - Average Shipping Cost
 - Average Product Rating
5. **Build a Bar Chart** to display the **Top 10 Products by Sales**.
6. **Build a Filled Map or Shape Map** to display **Total Sales by State**.

7. **Create a Matrix:** Cross-tab of **Product Category vs Sub-Category** with **Sales and Profit**.
8. **Analyze Segments:** Use a Stacked Column Chart to show **Sales by Segment Over Time**.
9. **Create a Line Chart** to show **Monthly Sales Trend** using the Date table.
10. **Build a Scatter Plot** to visualize the relationship between **Discount and Profit**.
11. **Add Slicers/Filters** for:
 - Region
 - Product Category
 - Product Rating
12. **Add KPI Cards** for:
 - Total Orders
 - Total Customers
 - Total Sales
 - Average Product Rating
13. **Calculate Shipping Delay:** Create a calculated column or measure for Ship Date - Order Date and show the **average shipping delay by region**.
14. **Display Profit Margin** using a **Gauge or Donut Chart**.
15. **Build a Final Dashboard Page:** Combine visuals with interactive slicers and filters.

Perform this too: [Wherever Possible]

- Add drill-through pages for individual products or regional deep dives.
- Use bookmarks to enhance storytelling and add a guided navigation experience.
- Apply conditional formatting in matrix and card visuals to highlight insights.