

## Sales Analysis Dashboard – Case Study

### Objective

The project delivers a complete Power BI Sales Analysis Dashboard to help stakeholders understand revenue drivers, product profitability, regional performance, and customer behavior.

### Dataset

- Global Superstore dataset from Kaggle/Tableau
- Contains Orders, Customers, Products, Regions, Shipping data

### Business Questions

- Which products and regions drive sales and profit?
- What are the monthly/quarterly trends?
- Which customer segments are most valuable?
- Where do shipping delays or returns affect business?

### Methodology

1. Data Cleaning (Power Query)
  - Fixed data types
  - Removed duplicates
  - Created calculated columns (Shipping Delay, Profit Margin)
2. Data Transformation
  - Aggregations by month, region, category
  - Time intelligence (YoY, Rolling 3M)
3. Modelling (Star Schema)
  - Fact Orders + Dim Customers, Products, Regions, Calendar
4. DAX Measures
  - Total Sales, Total Profit, YoY%, Profit Margin, AOV, Customer Count
5. Visualization
  - 12-column grid design
  - Six KPI cards, trends, profit matrix, cohort tables
6. Insights
  - Technology & Office Supplies drive majority profit
  - Furniture category is discount-heavy, reducing margins
  - West region shows strongest growth
  - Shipping delays correlate with higher returns

### Limitations

- Sample dataset (not real business data)
- No COGS → cannot compute Gross Margin
- No demographic or behavioral customer data

### Next Steps

- Add ML forecasting
- Add RFM segmentation
- Build real-time dashboard