

# Super Store USA - Sales & Business Insights

## Project Overview

### Objective:

This project analyzes **SuperStore USA's** sales data to identify **trends, customer behavior, product performance, and profitability**. The goal is to generate insights that can help improve **sales strategies, pricing models, inventory management, and customer targeting**.

### Dataset Overview:

- The dataset consists of **9,426 orders** with **24 attributes**, including sales, profit, discounts, shipping mode, customer segments, and order priorities.
- The data spans multiple years, with sales peaking in **2013**.
- It covers **various product categories** such as **Office Supplies, Technology, and Furniture** across different **regions and states** in the USA.

### Approach & Methodology:

1. **Data Cleaning & Preprocessing:**
  - Handled missing values and formatted date fields.
  - Standardized categorical values (e.g., fixing inconsistencies in "Order Priority").
2. **Exploratory Data Analysis (EDA):**
  - **Sales & Profit Trends:** Identified yearly trends and top-performing categories.
  - **Shipping & Customer Segments:** Analyzed how different customer segments and shipping modes impact business.
  - **Discount & Profitability Analysis:** Evaluated the effect of discounts on profit margins.
3. **Visualization & Reporting:**
  - Used **Power BI, Python (Matplotlib & Seaborn), and Tableau** to create visual insights.
  - Built **interactive dashboards** to showcase trends in sales, profits, and customer behavior.

## 1. Summary of Key Insights

### Sales Performance:

- The dataset contains **9,426 orders** across various product categories and customer segments.
- Sales peaked in **2013**, indicating a growth trend.

- The top-selling product category was **Office Supplies**, followed by **Technology** and **Furniture**.

#### **Shipping Trends:**

- The most commonly used shipping mode was **Regular Air (74%)**, followed by **Delivery Truck (13%)** and **Express Air (11%)**.
- Faster shipping methods like **Express Air** had lower usage, possibly due to higher costs.

#### **Customer Behavior:**

- The majority of customers belonged to the **Corporate and Consumer segments**.
- High-priority orders were the most common, while "Critical" orders had the lowest proportion.
- The top five states contributing to the highest sales were **California, Texas, Illinois, New York, and Florida**.

#### **Profit & Discount Analysis:**

- **Technology** products generated the highest profit margins.
  - Some product categories showed **negative profit trends**, meaning the discounts offered may have impacted profitability.
  - Discounted products generally had **lower profit margins**, indicating a need for better discounting strategies.
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## **2. Recommendations for Business Growth**

### **1. Optimize Inventory Management**

- Increase stock levels for **top-selling products** (especially Office Supplies & Technology) to prevent stockouts.
- Improve demand forecasting based on past **sales trends (2013 peak sales pattern)**.

### **2. Improve Pricing Strategies**

- Reassess **pricing models for products with negative profits** to ensure profitability.
- Reduce unnecessary discounts on products where demand remains stable even without them.

### **3. Enhance Shipping & Logistics**

- Optimize delivery routes to reduce **shipping costs in high-order states** (California, Texas, etc.).

- Consider promoting **Express Air** for urgent orders to boost customer satisfaction.

#### ✓ 4. Customer Targeting & Marketing

- Focus marketing efforts on **underperforming product categories** to improve their sales.
- Implement **loyalty programs** for high-value customers to encourage repeat purchases.

#### ✓ 5. Monitor High-Priority Orders

- Ensure that **Critical and High-priority orders** are handled efficiently to prevent delays.
- Provide **exclusive benefits** for high-value customers to increase retention.