

Superstore Sales Analysis Project

Documentation

1. Project Introduction

Project Name: Superstore Sales Analysis

Team Members:

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Objective:

This project aims to analyze sales data from a Superstore dataset to extract actionable business insights. It visualizes sales performance, customer behavior, shipping trends, and product analysis using Power BI to support better decision-making.

Target Audience:

Business managers, sales teams, and operational analysts who need to monitor and optimize sales strategies.

2. Scope of Work

Data Sources:

- Source: Superstore Sales Dataset (Excel file format)

Dataset Information:

- Number of Columns: 18
- Number of Rows: 9800

Column Names:

- Row ID
- Order ID
- Order Date
- Ship Date
- Ship Mode
- Customer ID
- Customer Name
- Segment
- Country
- City
- State
- Postal Code
- Region
- Product ID
- Category
- Sub-Category
- Product Name
- Sales

3. Methodology

Tools Used:

- Microsoft Power BI
- Power Query for data cleaning
- DAX (Data Analysis Expressions) for calculated measures and KPIs

Data Cleaning Process:

- Removed duplicate records
- Standardized date formats

- Handled missing values
- Ensured consistent naming across categories

Model Creation:

- Created relationships between tables
- Built calculated columns and measures for enhanced analytics
- Developed interactive dashboards including charts, KPIs, and slicers

4. Analysis Results

Visualizations:

- Sales performance over time
- Top-performing products and categories
- Regional sales distribution
- Customer segmentation analysis
- Shipping mode impact on delivery times

Key Insights:

- Office Supplies and Technology are top-selling categories.
- West and East regions generate the highest sales.
- Standard Class is the most commonly used shipping mode.

Recommendations:

- Focus marketing efforts on high-performing regions.
- Optimize shipping strategies to improve delivery times.
- Expand product lines in best-selling categories.

5. Challenges and Solutions

Challenges:

- Inconsistent data entries (e.g., variations in city names)
- Missing values in postal codes

Solutions:

- Standardized data using Power Query transformations.
- Replaced missing values or categorized them as "Unknown" where necessary.

6. Future Steps

Next Steps:

- Add real-time data refresh for up-to-date reporting.
- Incorporate customer feedback metrics.
- Develop predictive sales models using machine learning integration.

Continuous Improvement Suggestions:

- Regular data quality checks.
- Expand dataset to include marketing and returns data for deeper analysis.

7. Appendices and References

Data References:

- Superstore Sales Dataset (Excel)

Technical References:

- Power BI Documentation
- Microsoft DAX Reference Guide

Attachments:

- Screenshots of dashboards (available upon request)

8. Conclusion

This project provided a detailed analysis of Superstore sales data, leading to actionable insights for enhancing business strategies. It demonstrated the power of data visualization in simplifying complex information and driving informed decision-making.

Acknowledgments:

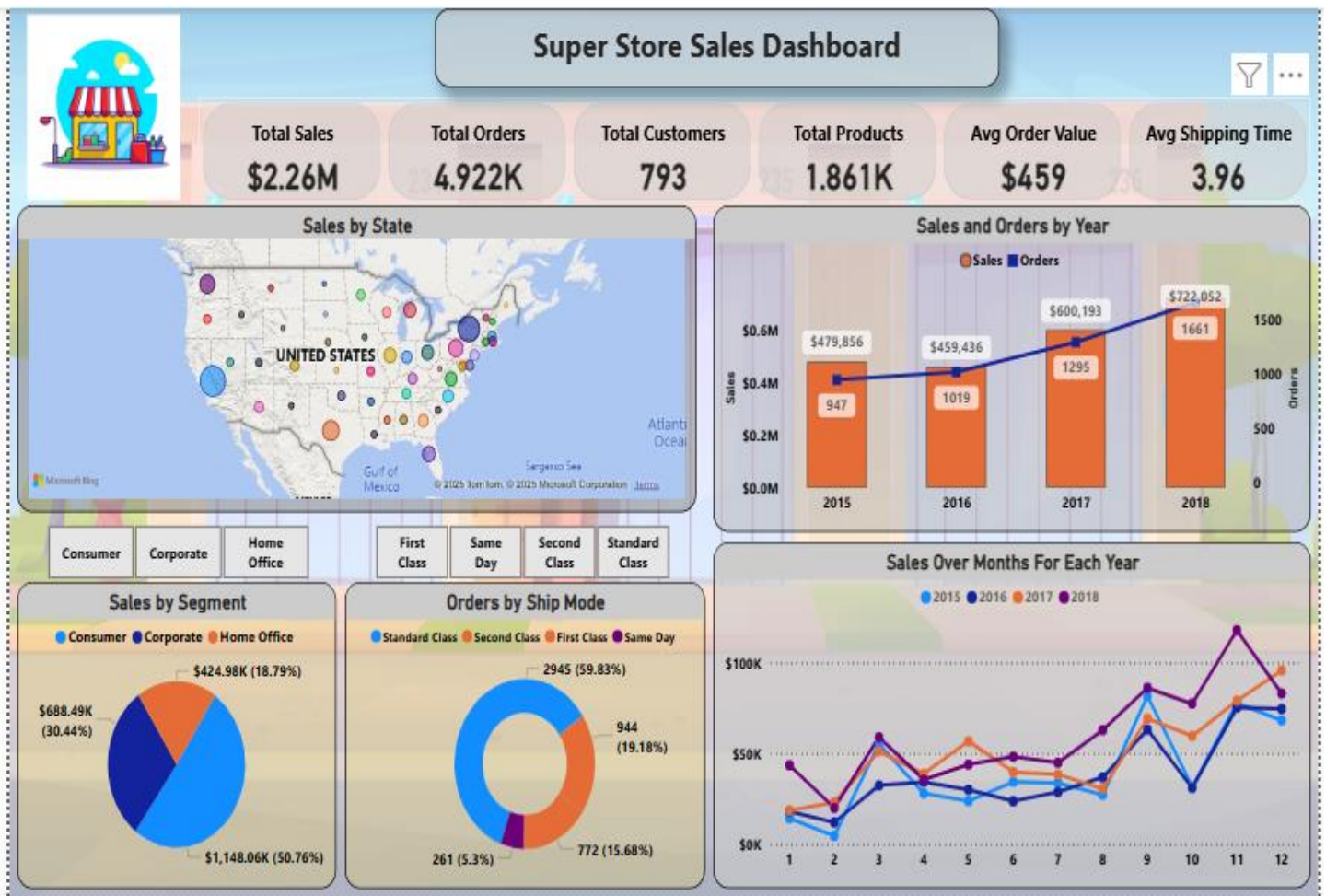
Thanks to all team members for their contributions to the project's success.

Sales & Orders Overview

Provides a full view of total sales, orders, and customer distribution.

Highlights top-performing and weak states in terms of sales and orders.

Breaks down customer segments and preferred shipping methods to help in business targeting.

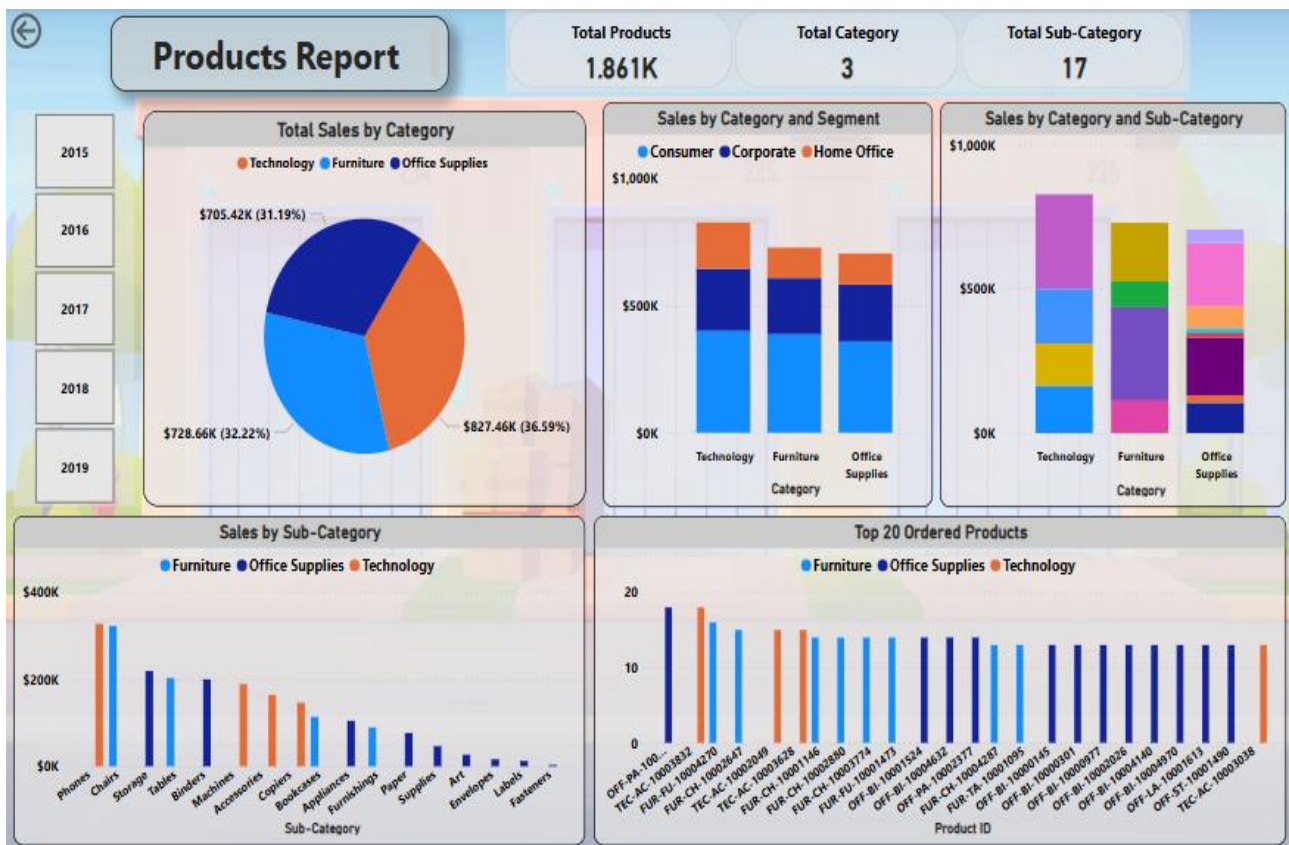


Product Performance Overview

Focuses on product category and sub-category performance based on sales and orders.

Identifies the best-selling products and tracks shipping mode usage.

Measures average shipping time to monitor logistics efficiency.



Customer Dashboard

Total & Repeat Customers:

Shows total customers and repeat ones. No new customers found (possible data issue).

Customer Segments:

Displays distribution across different customer types.

Shipping Modes:

Visualizes preferred shipping methods.

States & Cities:

Shows number of states and cities covered by orders.

