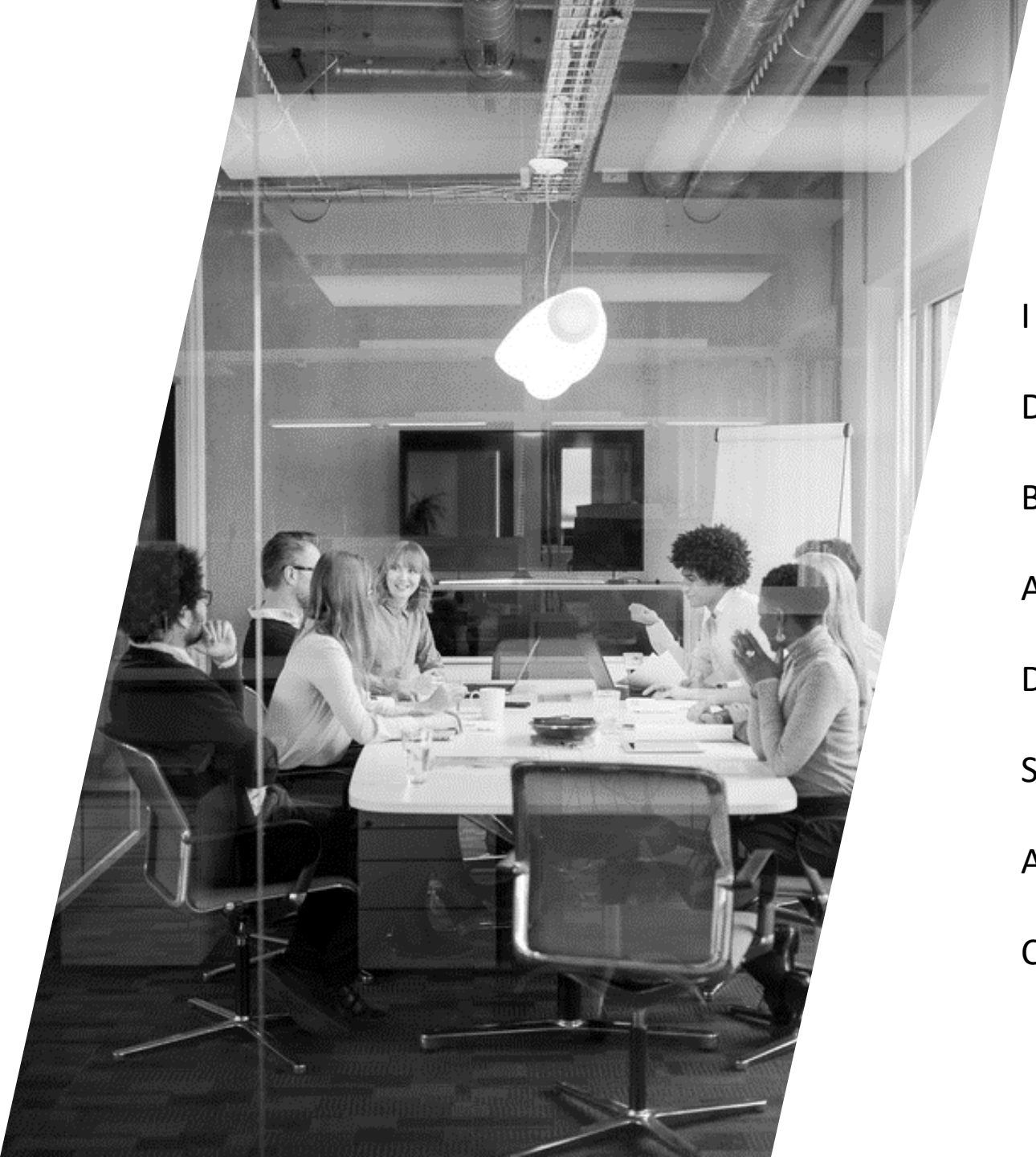
SUPERSTORE SALES ANALYSIS

By: Shahana Anjum

- Computer Engineer, with a focus on data analysis and financial modelling.
- Skilled in Excel, data visualization, and financial reporting.
- Passionate about understanding market behavior through statistical techniques
- Currently exploring the intersection of finance, analytics, and decision making



AGENDA

Introduction

Dataset Exploration and Preparation

Basic Visualization

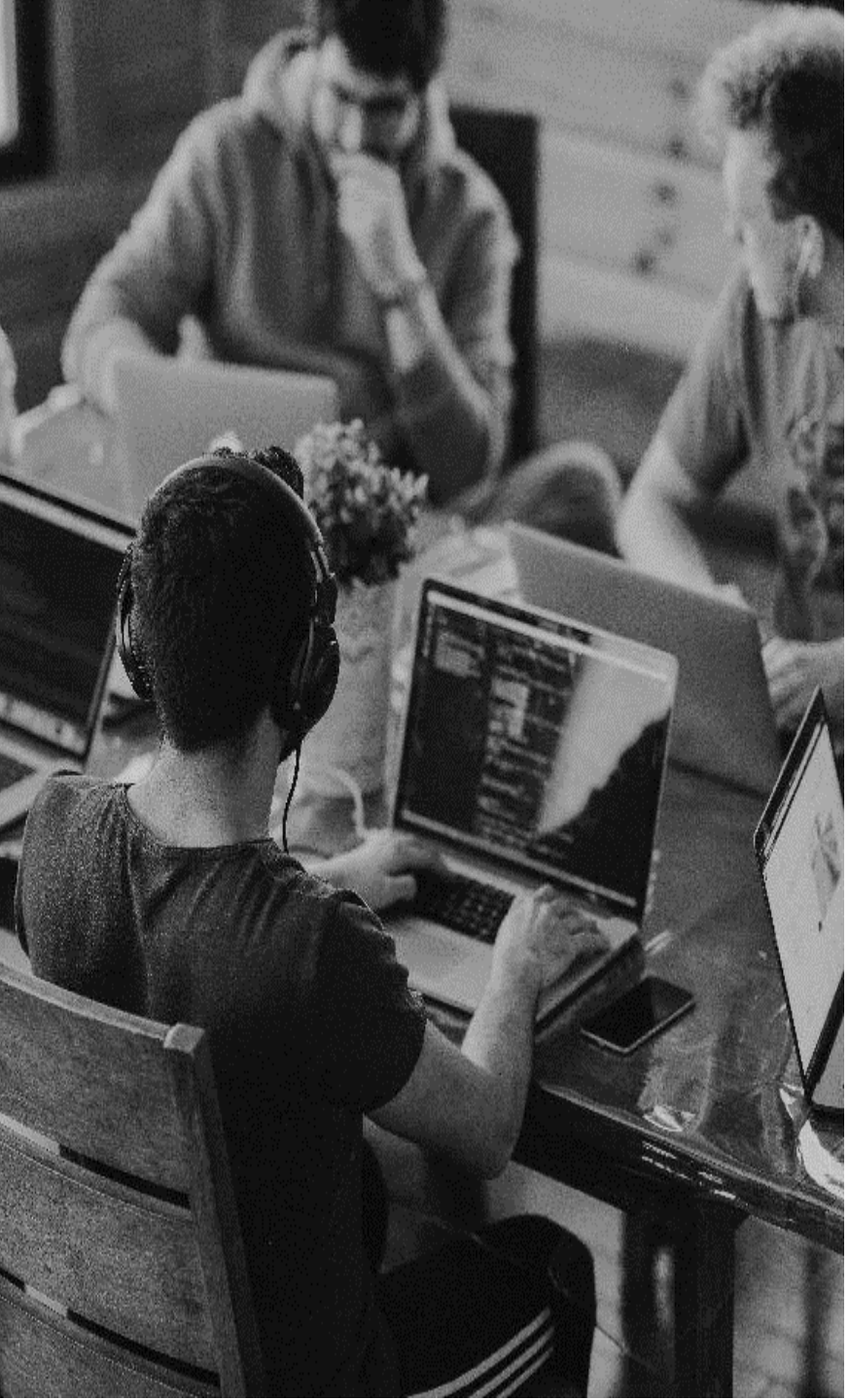
Advance Visualization

Dashboard

Sales Performance Summary

Analysis and Reporting

Conclusion



INTRODUCTION

- The objective of this project is to analyze:
  - Utilize Tableau to explore, analyze, and visualize the Superstore dataset.
  - Develop interactive dashboards to compare key business metrics across different regions.
  - Identify trends, patterns, and insights in sales, profit, customer behavior, and product performance.
  - Analyze sales and profit trends
  - Identify areas of concern and opportunities
  - Provide actionable recommendations using Tableau dashboards

  This analysis will enable decision-makers to make informed, region-specific actions to drive growth and improve the overall efficiency of sales operations

DATASET EXPLORATION AND PREPARATION

Type	Field Name	Physical Table	Remote Fie...
#	Row ID	Orders	Row ID
Abc	Order ID	Orders	Order ID
📅	Order Date	Orders	Order Date
📅	Ship Date	Orders	Ship Date
Abc	Ship Mode	Orders	Ship Mode
Abc	Customer ID	Orders	Customer ID
Abc	Customer Name	Orders	Customer N...
Abc	Segment	Orders	Segment
🌐	Country	Orders	Country
🌐	City	Orders	City
🌐	State	Orders	State
🌐	Postal Code	Orders	Postal Code
Abc	Region	Orders	Region
Abc	Product ID	Orders	Product ID
Abc	Category	Orders	Category
Abc	Sub-Category	Orders	Sub-Category
Abc	Product Name	Orders	Product Nam
#	Sales	Orders	Sales
#	Quantity	Orders	Quantity
#	Discount	Orders	Discount
#	Profit	Orders	Profit
=#	Average Sales pe	Calculation	Calculation_...
=#	Total Customer	Calculation	Calculation_...
=#	Average Orders p	Calculation	Calculation_...
=#	Average Profit pe	Calculation	Calculation_...
=Abc	Top/Bottom Pro	Calculation	Calculation_...
.ılı.	Quantity (bin)	Bin	Quantity (bin)

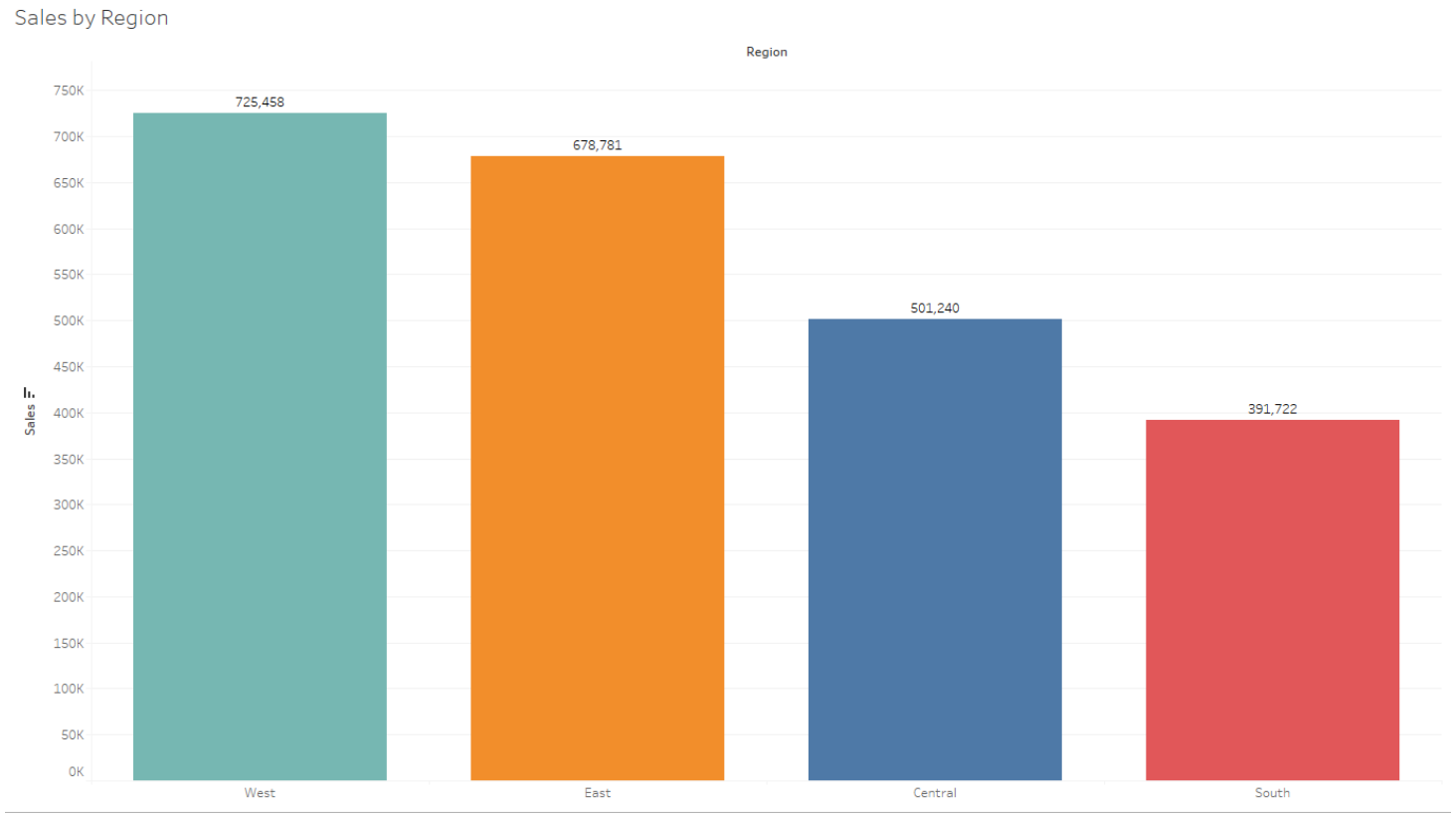
DATASET EXPLORATION AND PREPARATION

The analysis is based on the Superstore dataset, a widely used retail dataset that captures detailed sales transactions and customer interactions over time. It includes information from 2014 to 2018, covering various business dimensions.

- There are 24 fields
- Total Records: 9994
- Geography: Sales across four regions – West, East, Central, and South
- KPI: Customer names, IDs, and regional segmentation
- Order Information: Order ID, Order Date, Ship Date, Quantity, Discount, and Sales
- Product Detail: Product Name, Category (Furniture, Office Supplies, Technology), Sub-Category.

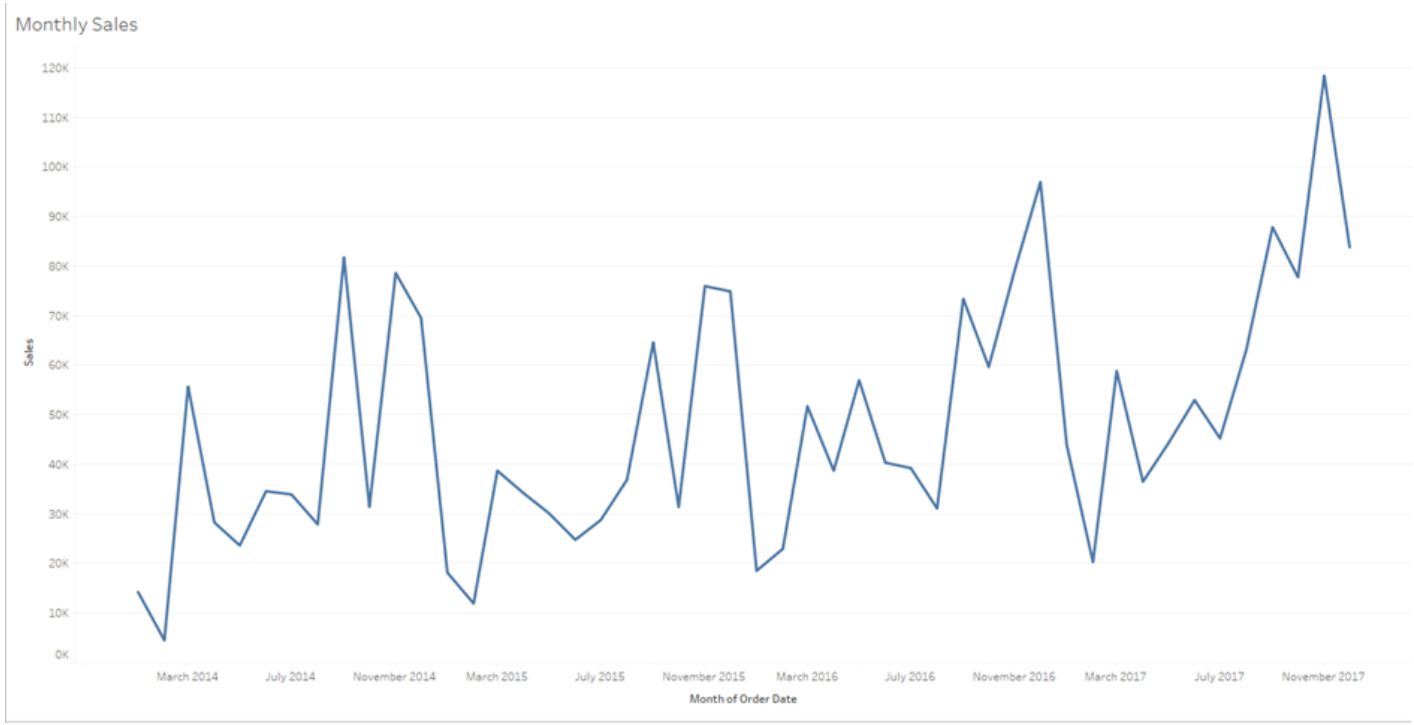
BASIC VISUALIZATIONS: SALES BY REGION

- The analysis shows that the west region have highest sales of more than 72k
- The south region sales are lower than 40k.
- Improvements are required for the south and central region. There is a need for regional marketing strategy.



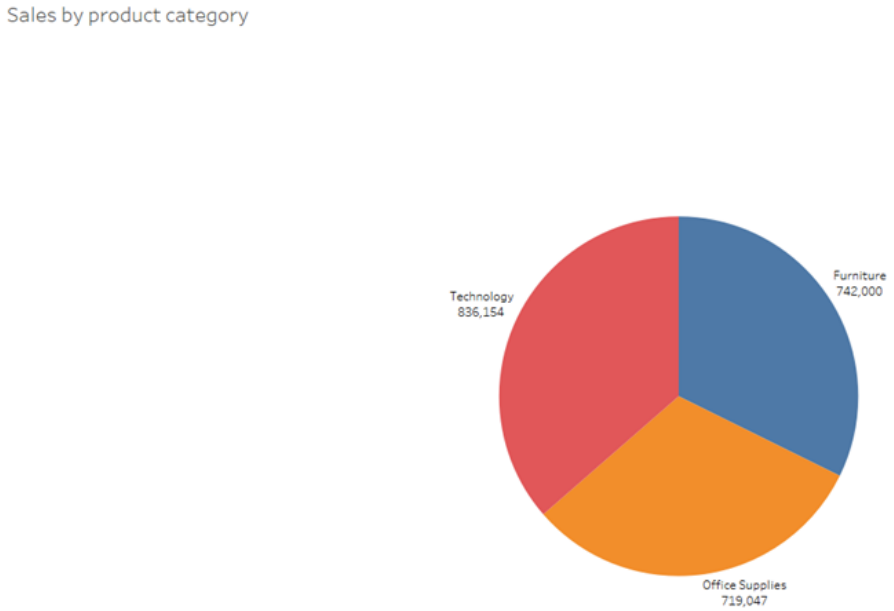
BASIC VISUALIZATIONS: MONTHLY SALES TREND

- There is a strong seasonality sales
- Peak sales observed in November and December.
- There is an opportunity to run holiday focused promotions to increase the sales.



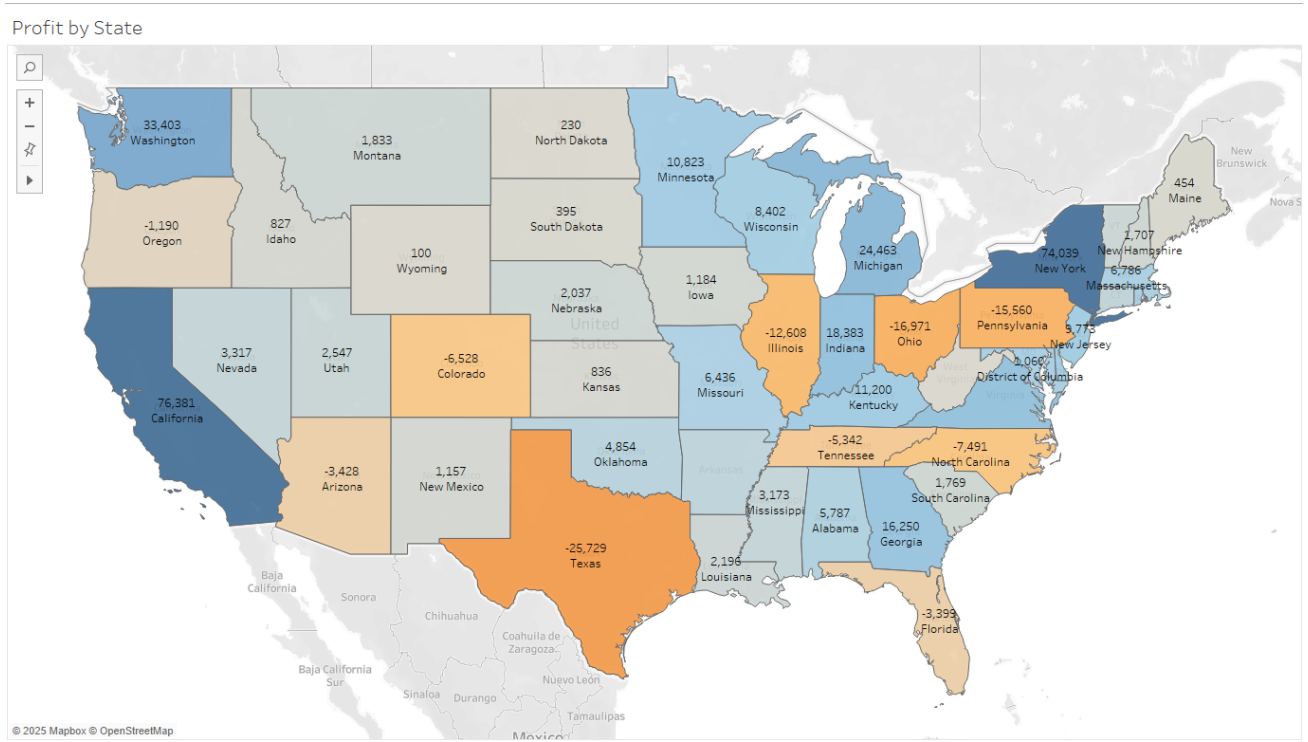
BASIC VISUALIZATIONS: SALES BY PRODUCT CATEGORY

- The trend shows that the sales for technology are highest than furniture and other supplies.
- Technology product are the most preferred one which can help tech industry to grow.
- Promotions required for other supplies products so to increase their sales



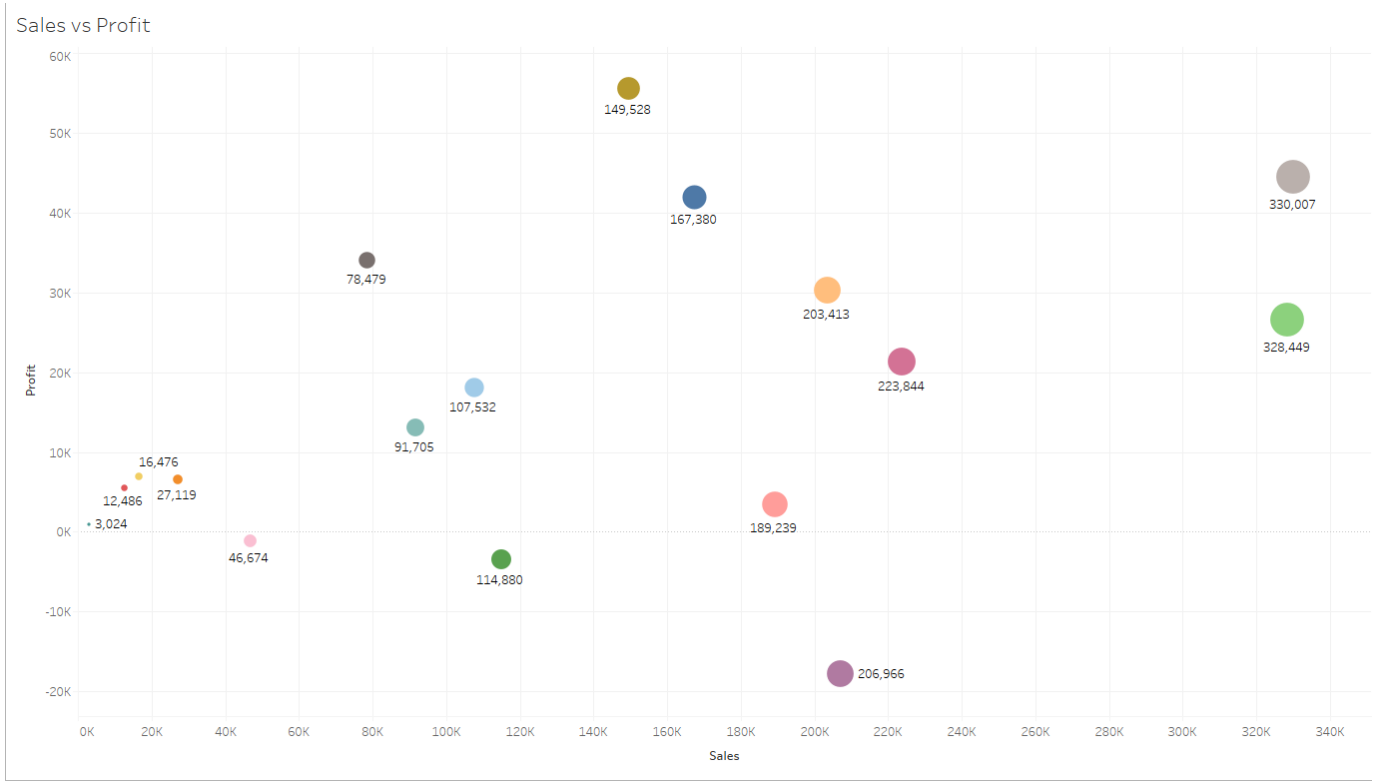
BASIC VISUALIZATIONS: PROFIT BY STATE

- The state such as California has the highest profit and New York follow with second highest profit state.
- The central and south region has lower profit.
- Promotions and business improvements are required to increase the profit in the south and central states.



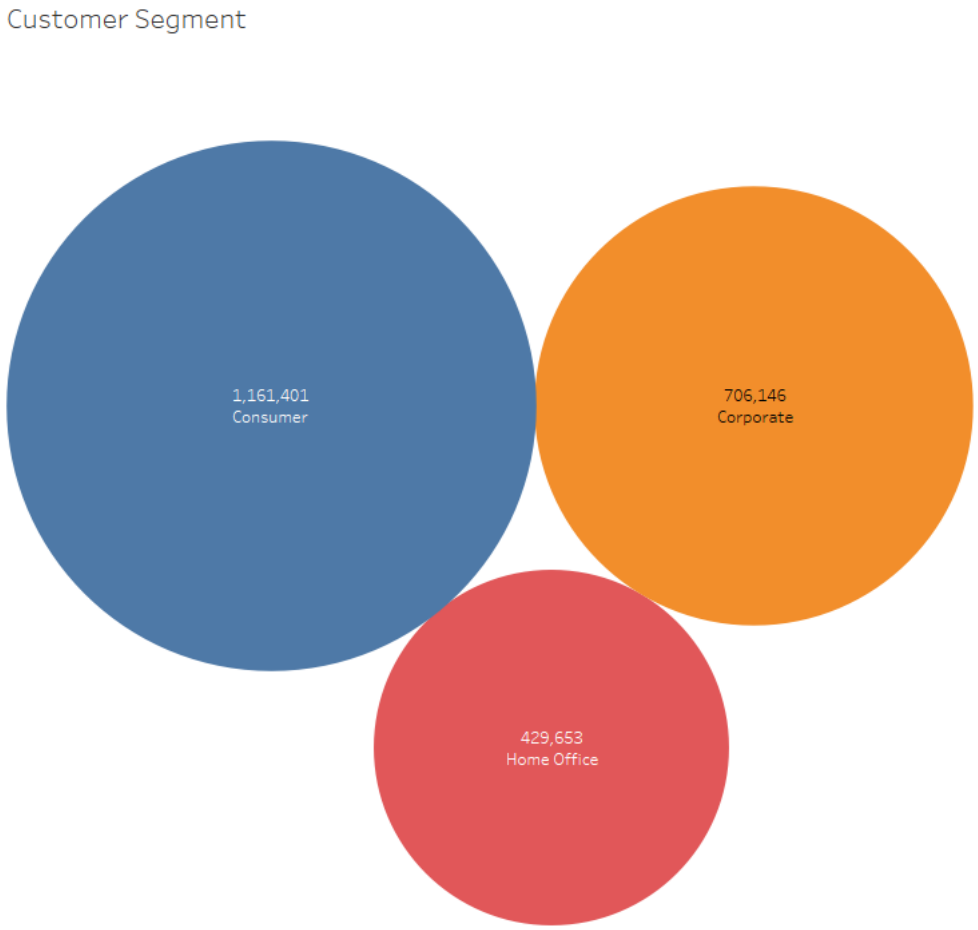
ADVANCE VISUALIZATION: SALSE VS PROFIT

- The trend shows that the highest sales does not always have high profit.
- Furniture category shows some negative profit despite decent sales
- Technology category balances sales and profit.



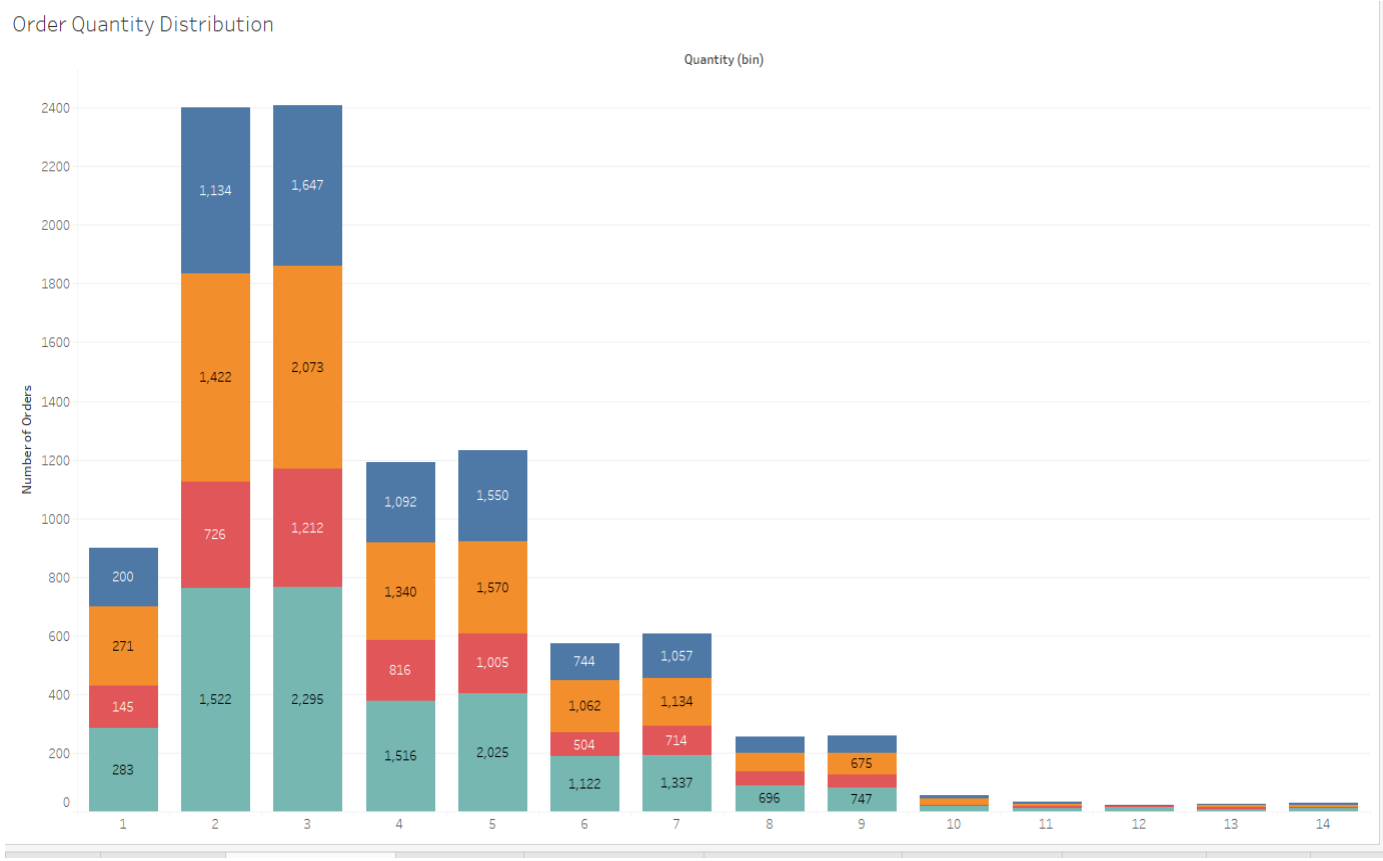
ADVANCE VISUALIZATION: CUSTOMER SEGMENT

- Corporate/home office segment shows highest profit margin
- Consumer segment identifies sales volume.
- Home office segment has lower sale which means that the prefer working environment are in the office.
- Segment specific campaigns/promotions are required.



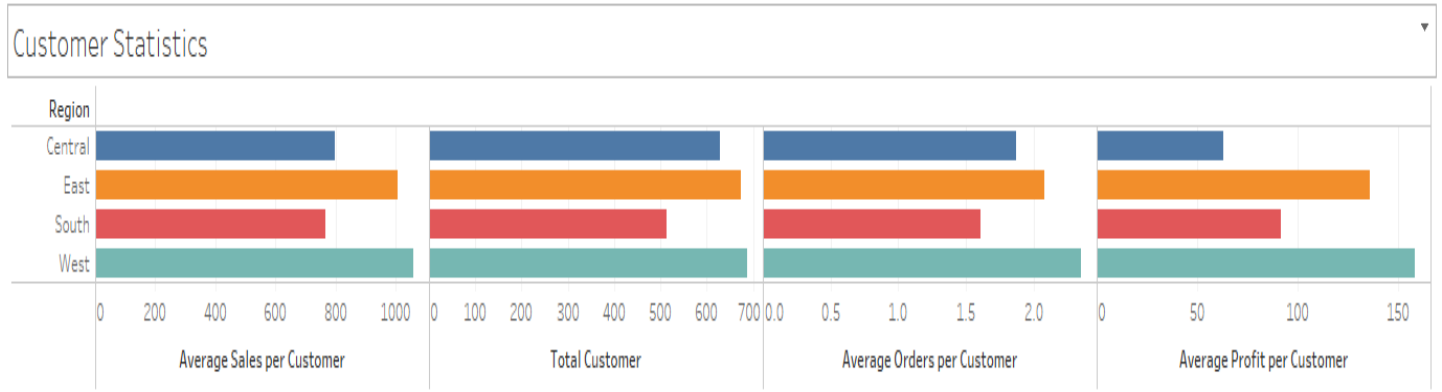
ADVANCE VISUALIZATION: ORDER QUANTITY DISTRIBUTION

- Bins 2 and 3 are the most frequent, each with total orders reaching nearly 2400.
- The distribution is right-skewed as most orders are placed in small quantities, with very few large-quantity orders.
- Marketing and pricing strategies could target customers more likely to order in bins 2–5



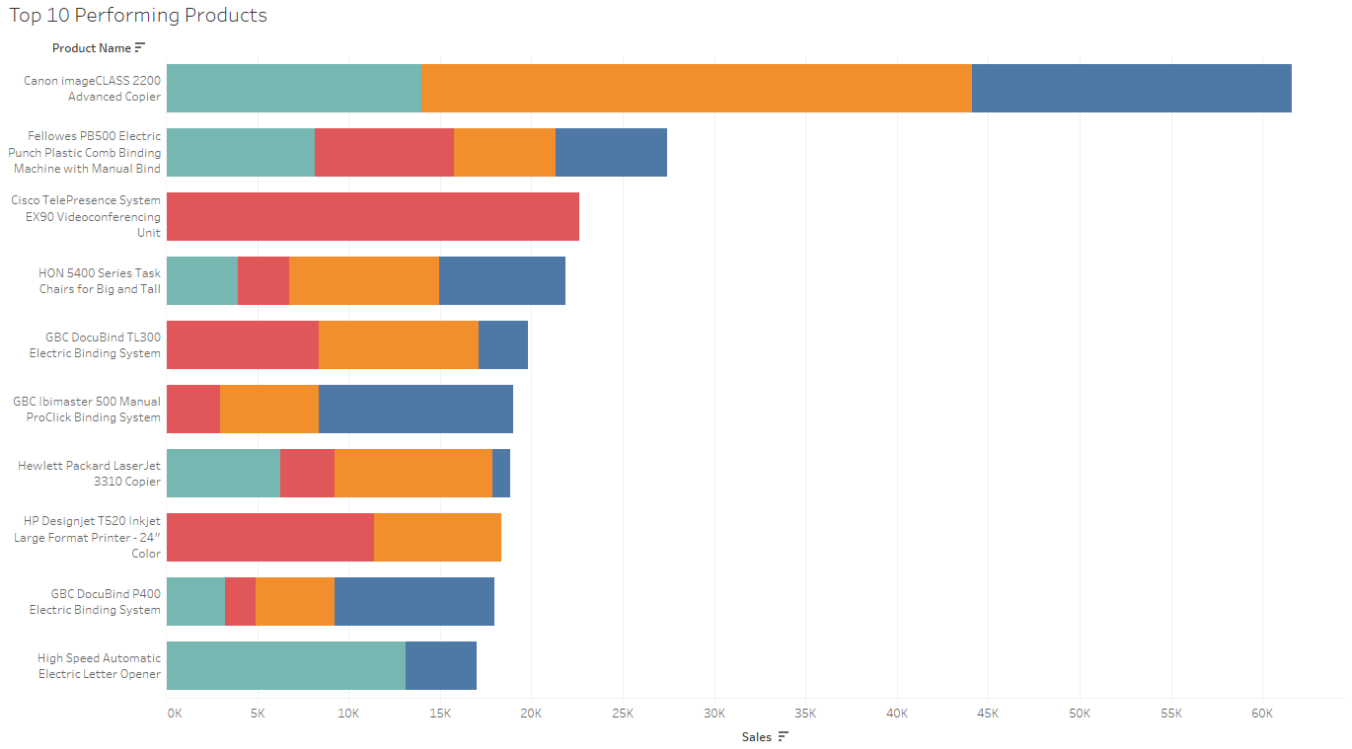
ADVANCE VISUALIZATION: CUSTOMER STATISTICS

- West region leads with the highest average sales.
- East follows, slightly above Central.
- South has the lowest average sales per customer.
- Focus marketing and resource allocation on West and East for maximum ROI.



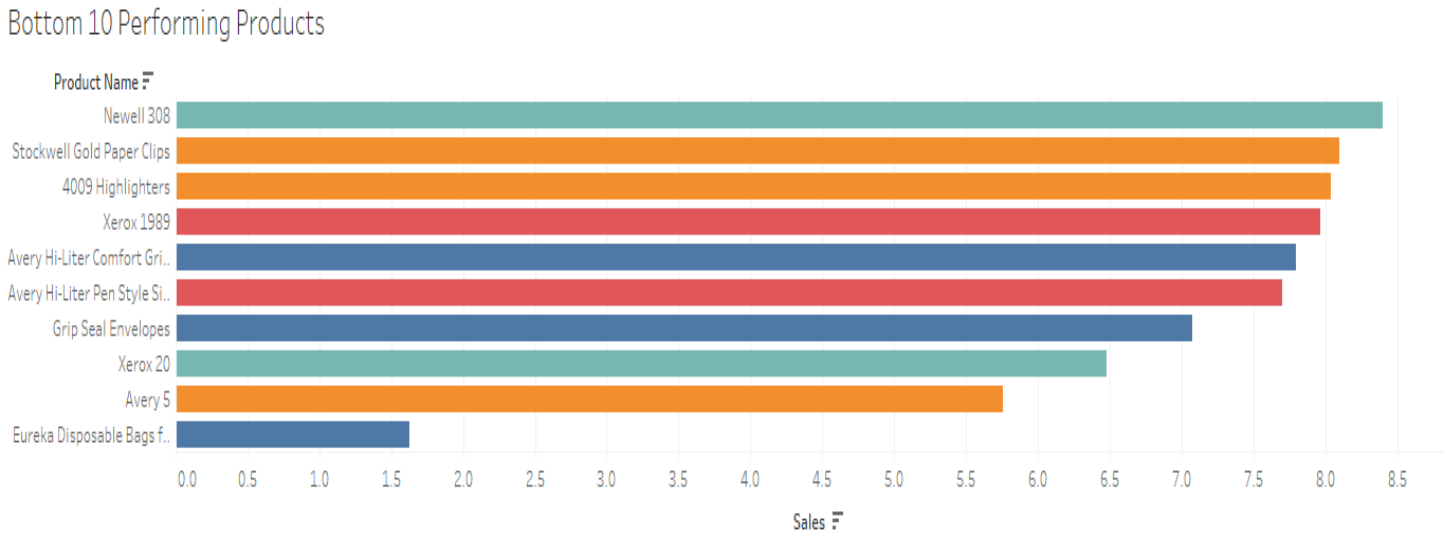
SALES PERFORMANCE SUMMARY: TOP 10 PERFORMING PRODUCT

- Canon image CLASS 2200 Advanced Copier dominates with sales exceeding 60K, more than double any other product.
- Fellowes PB500 Electric Punch Binding Machine and Cisco Tele Presence System EX90 also show strong sales.
- Consistent performance across multiple regions suggests broad market appeal for these items, reducing regional risk



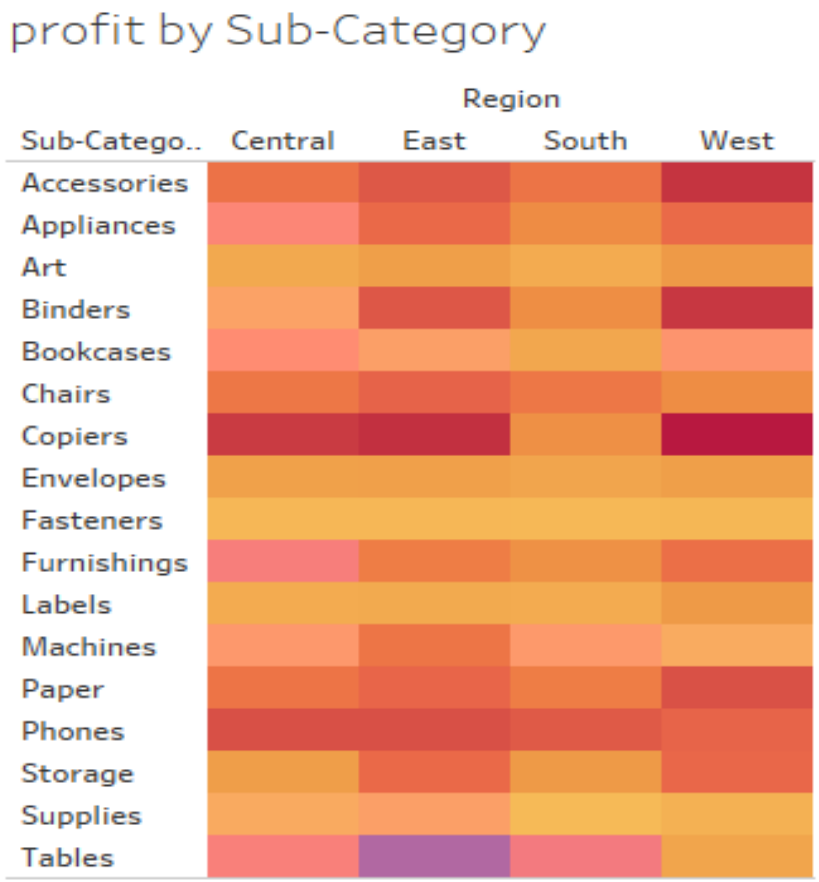
SALES PERFORMANCE SUMMARY: BOTTOM 10 PERFORMING PRODUCT

- Newell 308 is the least sold product, with sales just under 8.5 units.
- Followed closely by Stockwell Gold Paper Clips and 4009 Highlighters
- Products like Eureka Disposable Bags and Grip Seal Envelopes may have limited demand or be used in very specific use cases.
- Many of these products likely have limited or declining relevance in modern office environments.



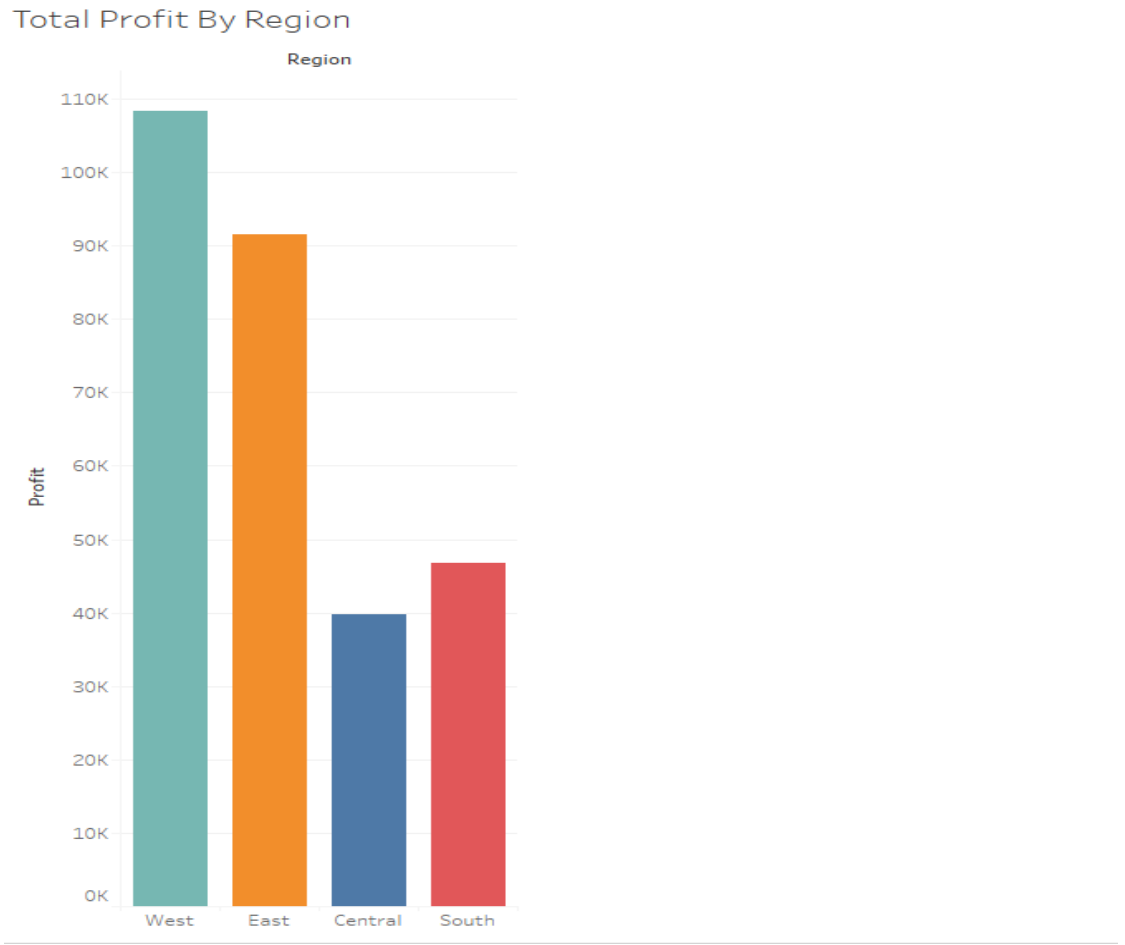
SALES PERFORMANCE SUMMARY: PROFIT BY SUB-CATEGORY

- The trend for Sub-categories like Chairs, Phones, Copiers, and Binders contribute significantly to profit.
- Regionally, South lags across nearly all sub-categories, whereas West and East perform well.



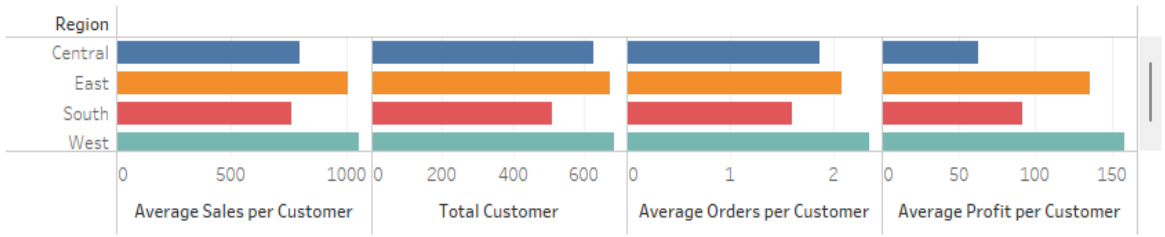
SALES PERFORMANCE SUMMARY: TOTAL PROFIT BY REGION

West and East region has highest profit.
Central and south has lower profit.

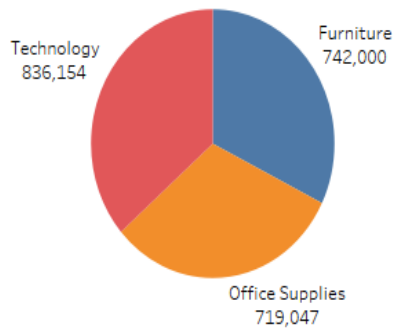


Dashboard

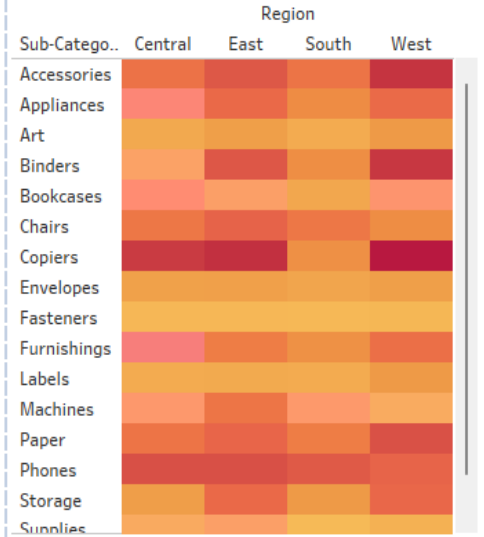
Customer Statistics



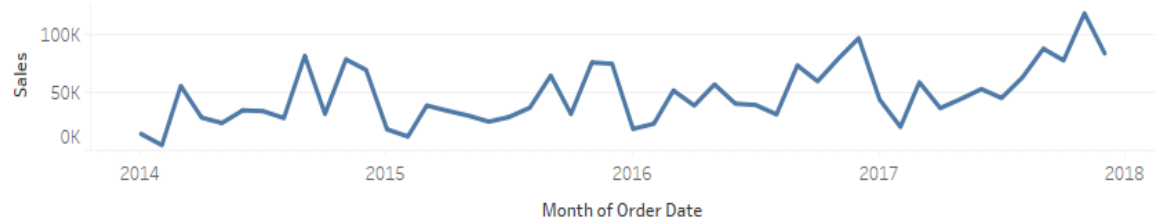
Sales by product category



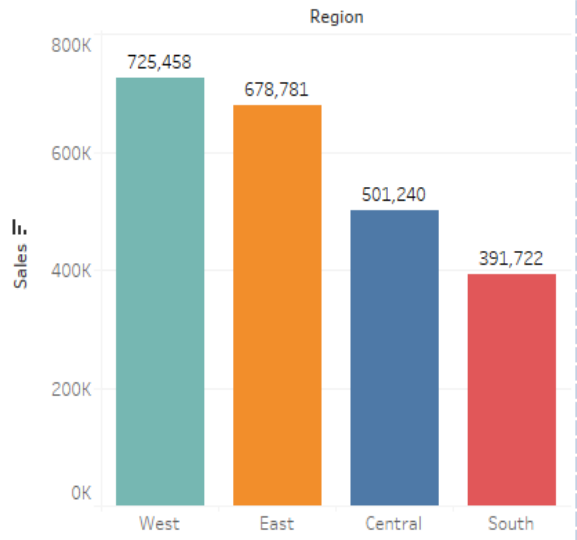
profit by Sub-Category



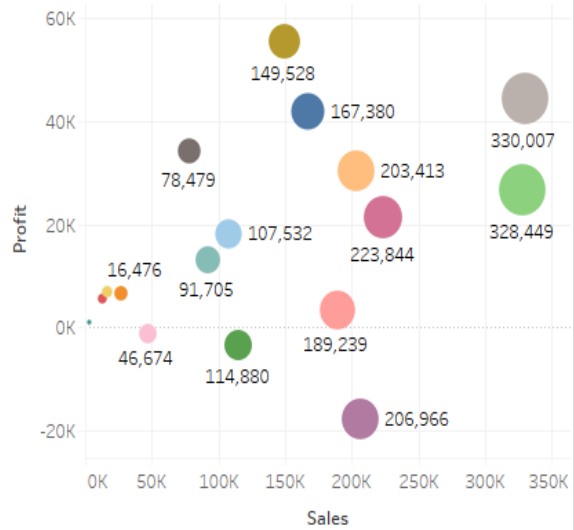
Monthly Sales



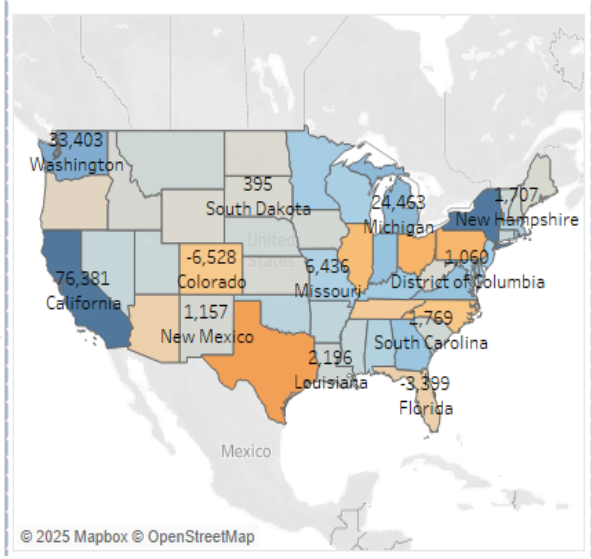
Sales by Region



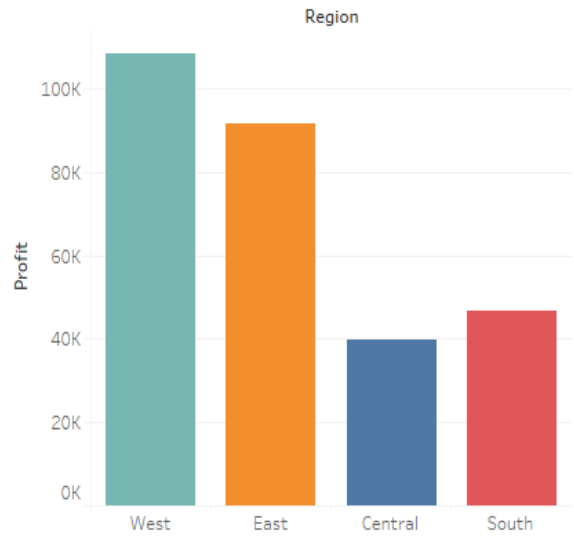
Sales vs Profit

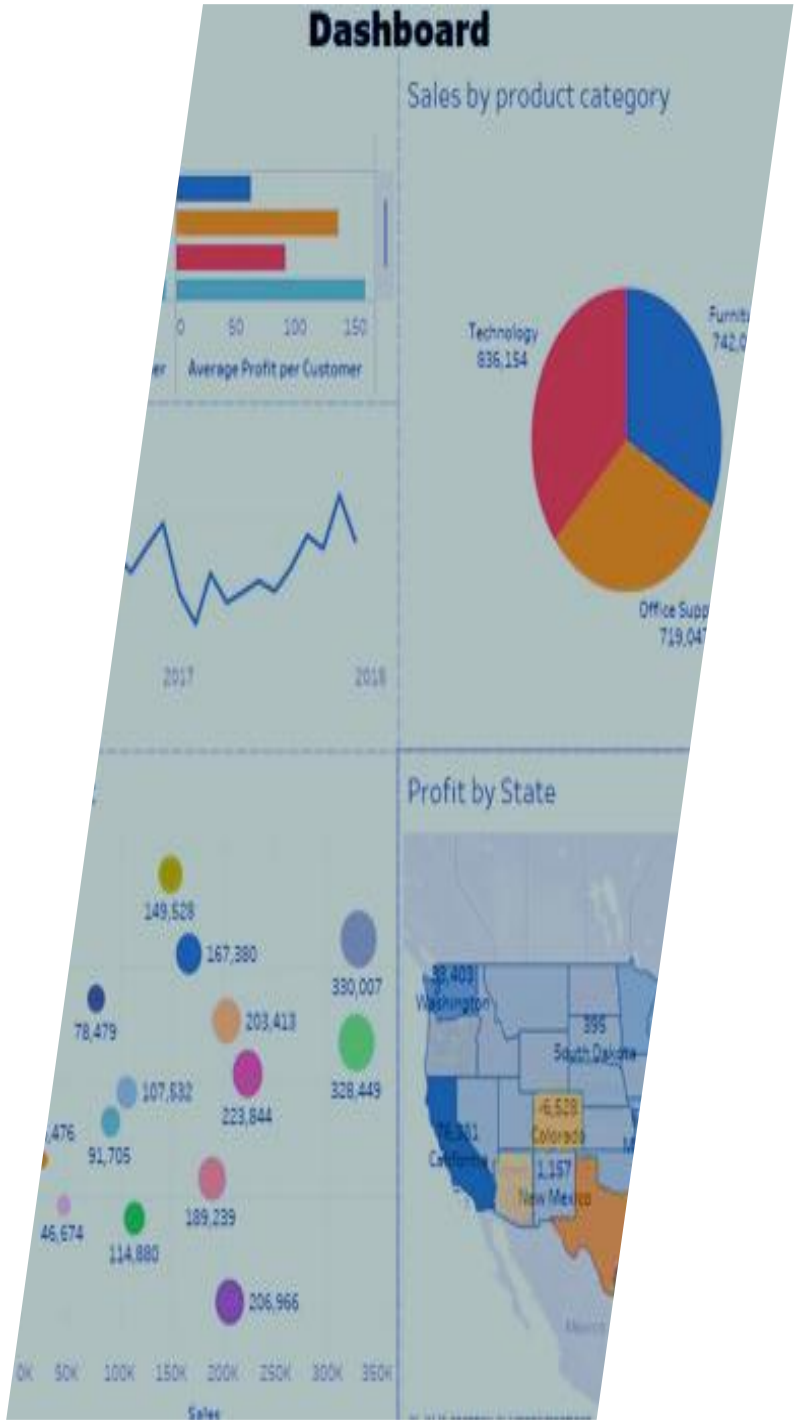


Profit by State



Total Profit By Region





DASHBOARD

KPI Dashboard Summary

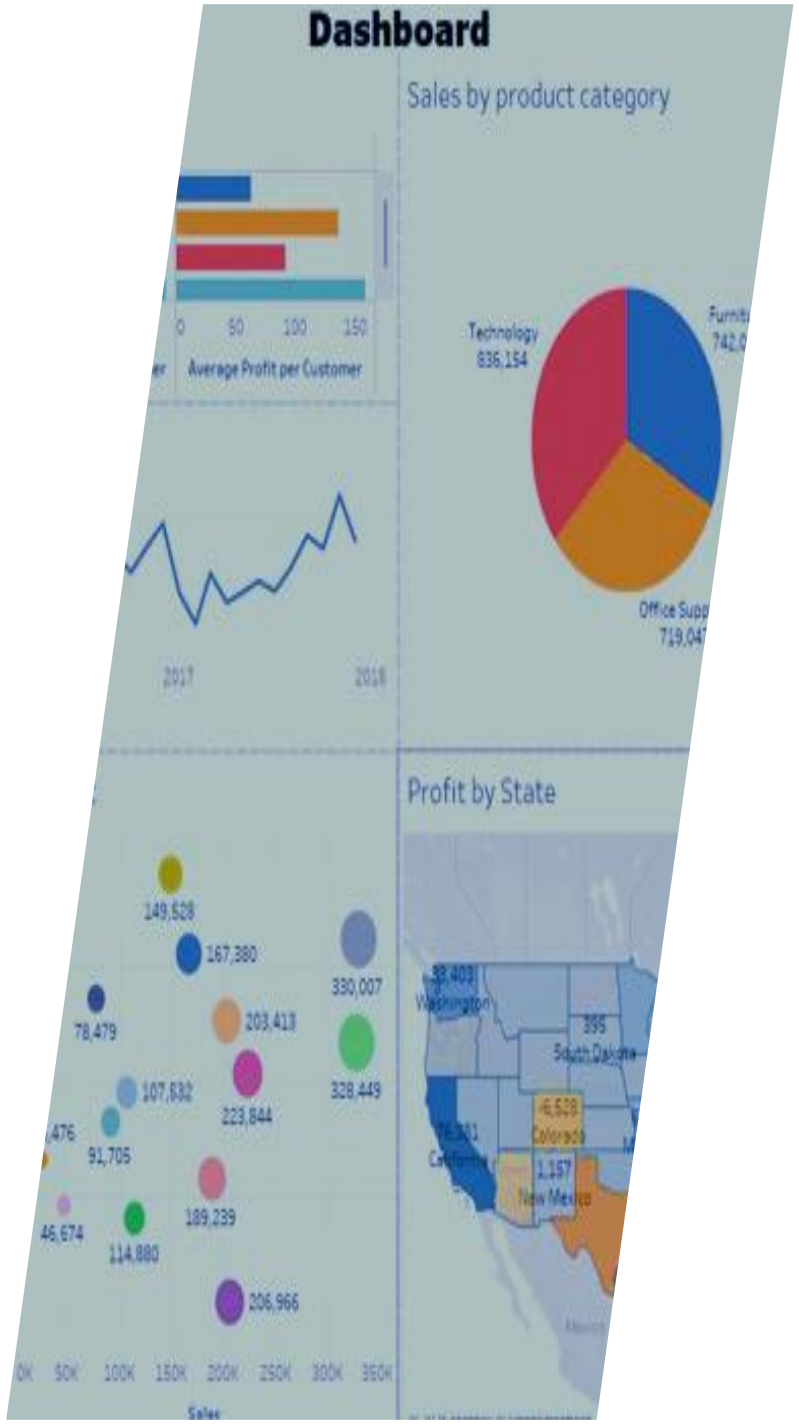
- Total Sales, Total Profit, Average Order Value
- KPIs provide a snapshot of business performance
- Useful for tracking success over time

Interactive Dashboard

- Combines Sales by Region, Monthly Trend, and Profit Analysis
- Filters allow dynamic updates by Region and Category
- Enables flexible, data-driven decision-making

Recommendations

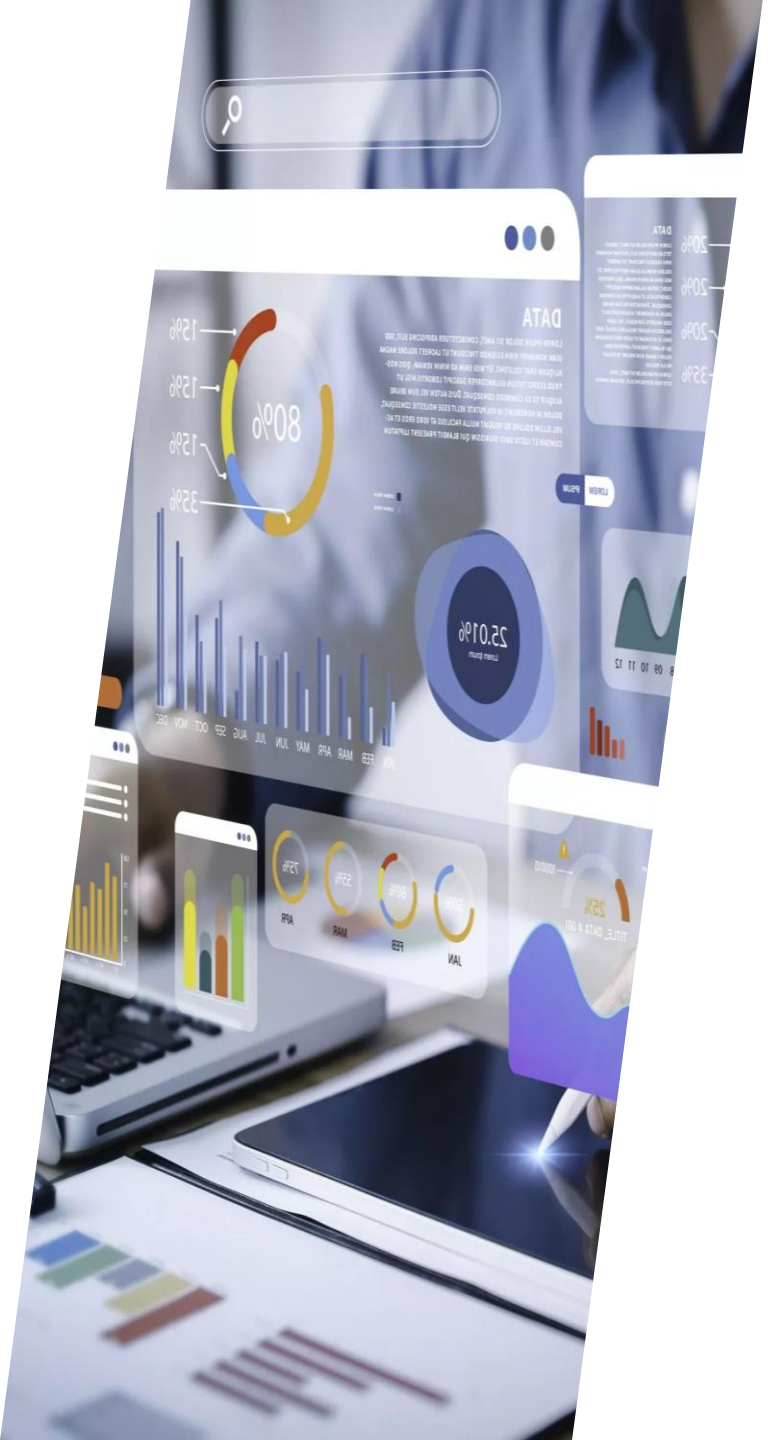
- Reassess low-profit product lines
- Increase investment in Central region
- Leverage seasonal sales spikes
- Focus on profitable customer segments



DASHBOARD

Strategic Value of Dashboards

- Real-time performance tracking
- Support informed decision-making
- Help optimize marketing, pricing, and inventory strategies



ANALYSIS AND REPORTING

Superstore sales analysis is carried out in this project using superstore dataset. The analysis is analyzed using Tableau. The insights and interactive dashboards were detailed in previous slides and a summary is shown below:

- West region has the highest average sales and profit per customer, along with strong customer count.
- South shows the lowest performance across all customer metrics: sales, orders, and profit per customer.
- Sales are steadily increasing from 2014 to 2017
- The trend reflects healthy business growth over time
- Technology is the top-selling category (≈$836K), followed by Furniture and Office Supplies.
- Sub-categories like Chairs, Phones, Copiers, and Binders contribute significantly to profit.
- West leads with the highest profit, followed by East, whereas South and Central are significantly less profitable.

ANALYSIS AND REPORTING

Area of concern:

- South Region: Consistently underperforms in sales, profit, and customer metrics.
- Regional Imbalance: Profit is concentrated in a few states; many others underperform or incur losses.
- Product Sub-Categories: Certain high-sales items like Tables are not profitable.

Any opportunities:

- Technology Category: High sales and likely high margin — continue to invest in this product line.
- Top States (CA, NY, WA): These could be leveraged as growth hubs or test markets
- South Region Revitalization: Requires targeted campaigns, adjusted pricing, or operational review

CONCLUSION

The analysis of the Superstore dataset through interactive Tableau dashboards has provided valuable insights into the company's regional and product-level performance. Key trends reveal that:

- Visual insights help reveal business strengths and weaknesses
- Dashboards provide strategic value
- These insights support the company's goal of expanding regionally by identifying high-performing markets, underutilized opportunities, and product lines requiring strategic attention

THANK YOU

Shahana Anjum

Sha.anjum57@outlook.com