Agenda

■ Content:

- Business Problem & Objectives
- Key Insights & Statistical Evidence
- Strategic Recommendations
- Next Steps & Implementation Plan

■ Our Goal

The primary goal is to pinpoint the key drivers of sales performance,providing data-driven insights to inform strategic decision-making.Through Excel analysis and Tableau visualization, I will create a comprehensive understanding of sales patterns and opportunities.

📅 **Project Scope:** Sales data from January 2014 to December 2017

📊 **Dimensions:** Product categories, regions, customer segments, order details

Business Problem & Objectives
- *Addressing Critical Business Challenges*

Key Questions:

➔ What drives profit and regional performance?

➔ Which categories are trending up or down?

➔ How can discounts be managed effectively?

➔ What does the forecast indicate for planning?

- ❖ **Our Goal:** Pinpoint key drivers of sales performance for data-driven decision-making.
- ❖ **Project Scope:** Sales data from January 2014 to December 2017;
- ❖ **Dimensions**: Product categories, regions, customer segments, order details.

Executive Summary
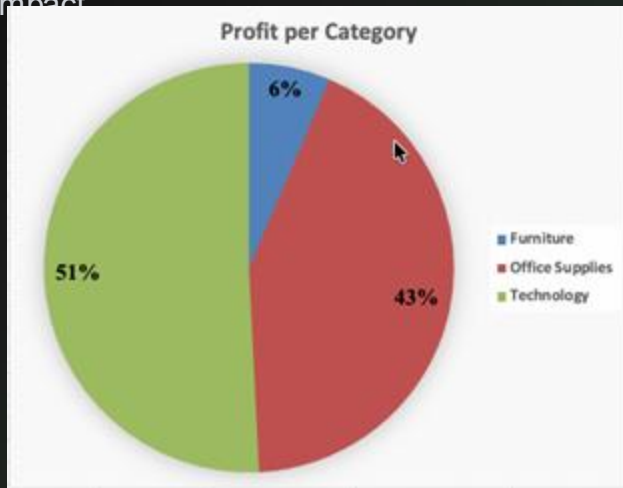
Key Insights & Impact

Profit per Category

6%

43%

51%

- Furniture
- Office Supplies
- Technology

Content:

- Technology drives ~51% of profit (Pareto 80/20).
- High discounts reduce margins (r = -0.22).
- Significant category differences (ANOVA p = 0.00).
- Technology category average sales $452.71 (highest).
- Regression model fit R^2 = 0.27.

Result: Actionable business insights to enhance profitability.

Profit Drivers

Technology Leads Profit Growth
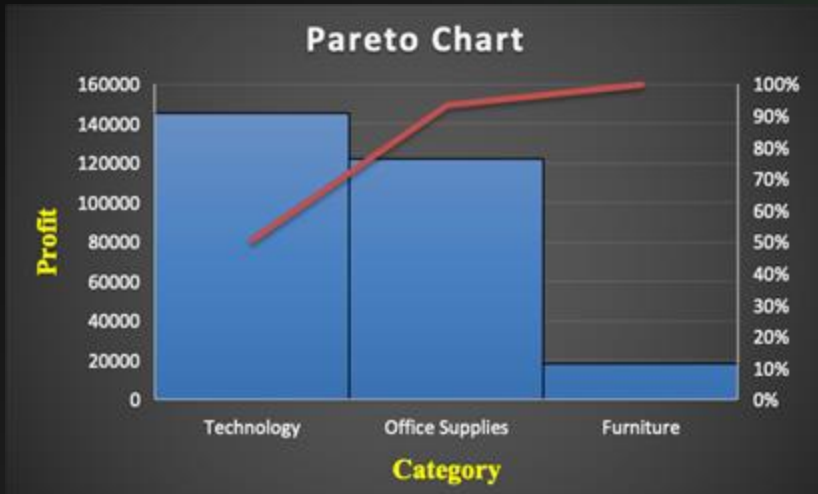
1 **Technology category accounts for ~45% of total profit.**

- ANOVA shows significant differences between categories (F = 117.24, p = 0.00); Sales-Profit correlation r = 0.48.

2 **Impact: Potential +$12K monthly profit with focused investment.**

- Analytical Approach: Excel for data preparation and cleaning; Tableau for visualization.

3 **Recommendation: Invest in Top Technology SKUs to Maximize Returns**

Discount Impact & Category Trends

- High Discounts Hurt Margins
- Furniture Decline Requires Action

Discounts correlate negatively with profitability (r = -0.22).
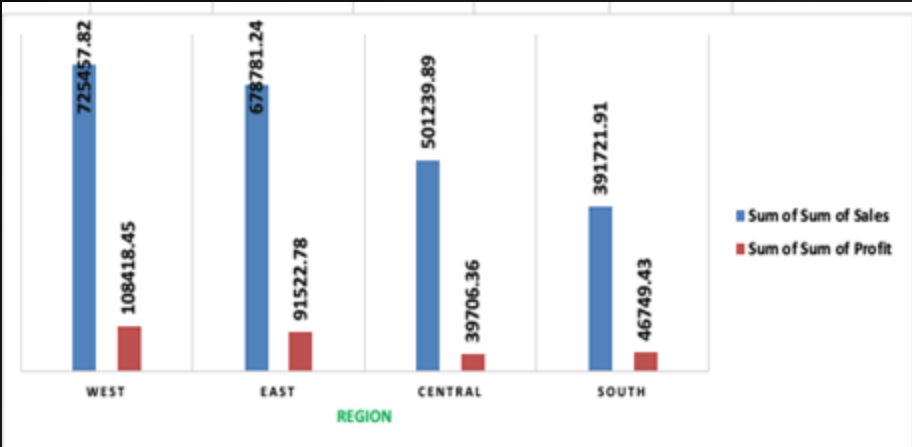
- Reducing high discounts could yield +15% margin gain.
- Implement Discount Cap ≤12% to Boost Margins.

Furniture category average sales $349.83 (moderate); significant inter-category variance.

Reduce Furniture Inventory by 30% to Cut Costs.

Regional Performance

- Regional Strategies Unlock Growth

Significant profit variation across regions; West leads with $725K sales and $108K profit.

- Pivot analysis shows margins: West 14.9%, East 13.5%, South 11.9%, Central 7.9%; Regional differences significant (ANOVA p = 0.0003).
- +25% uplift potential in Central with targeted efforts.

Regional Profitability Disparity

- Central shows solid sales ($501K) but lowest margins due to losses in sub-categories.

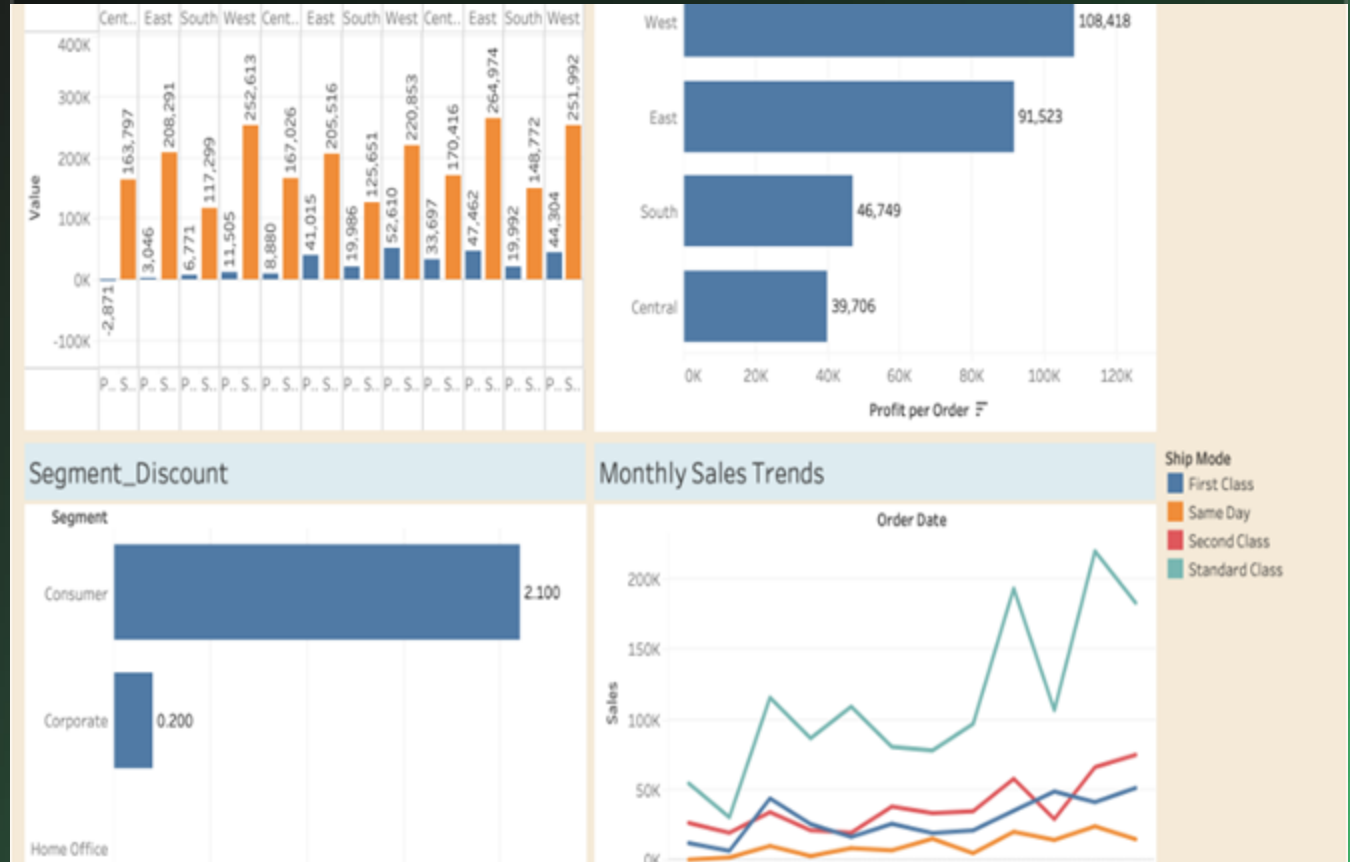**Tailor Regional Plans to Lift Central Performance by 25%.**

Tableau Dashboards

Interactive visualizations for dynamic sales performance analysis

Interactive Features

- Filters for Year and Region enable dynamic data exploration
- Dashboard actions facilitate deep-dive analysis
- Live data updates ensure current business insights

Next Steps & Implementation Plan

- **Regional Profitability Disparity**

  - West region demonstrates second-highest sales volume but lowest overall profitability

  - Several product sub-categories consistently generate losses in this region

Technology Category Performance

  - Technology category leads in total sales across most regions
  - High-volume technology products show surprisingly low-profit margins

  - Indicates potential issues with pricing, cost of goods sold, or competitive pressures

Conclusion & Call to Action

This project delivers a robust analytics framework to boost profitability and preparedness.

Action-oriented insights ensure alignment with business goals (e.g., r = 0.48 Sales-Profit link).

Next steps position Superstore for competitive advantage in Q4 2025 and beyond. Future Work:

Incorporate customer demographics; Develop sales forecasting model.

I invite anyone open to collaborate, add insights, or provide further enhancements, as I believe collaboration and teamwork are pillars for success and innovation.

Thank You