

# Sales Analysis Report

## Quarterly Performance Overview



### Executive Summary

This report provides a comprehensive analysis of sales performance for the past fiscal year. Key findings include:

- Total sales revenue of \$10.2M, representing a 15% increase from the previous year
- Highest performing product categories: Electronics (32%), Furniture (28%), and Office Supplies (25%)
- Northeast region showing the strongest growth at 22% year-over-year
- Customer retention rate improved to 78%, up from 72% last year

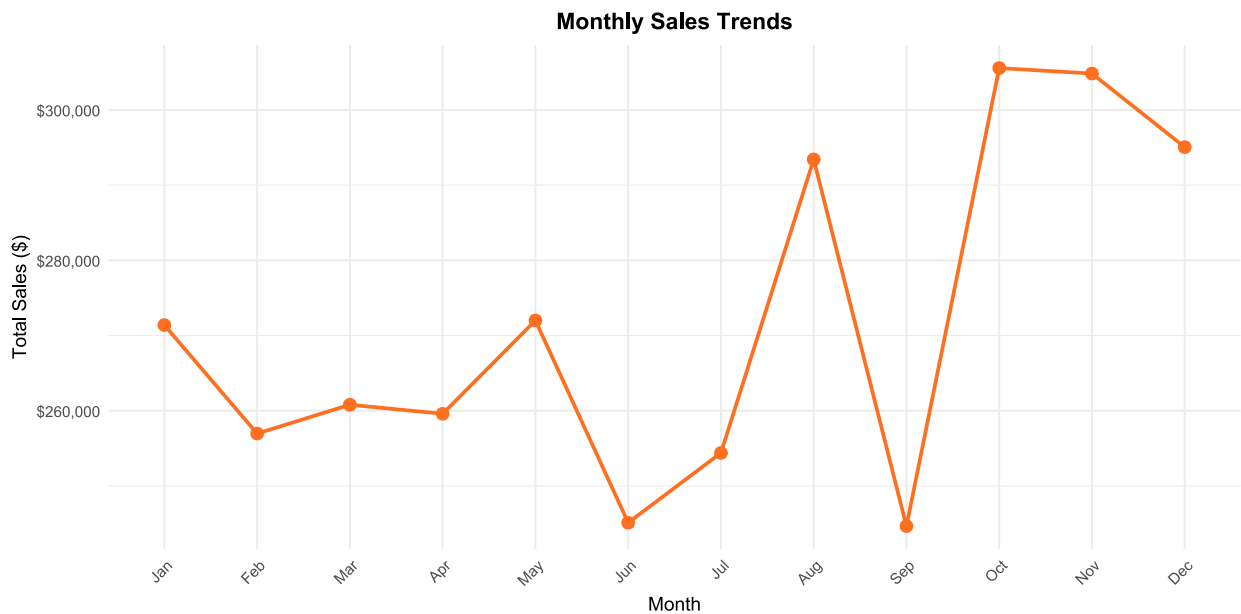
### Data Overview

order_id	order_date	region	customer_segment	category	state	subcategory	sales	quantity	discount	profit	ship_mode	quarter	month
ORD-61662	2023-10-25	Northeast	Small Business	Electronics	RI	Accessories	1,222.0483	2	0.00	342.17353	Standard	Q4	Oct
ORD-67869	2023-09-15	Southeast	Corporate	Furniture	AL	Chairs	1,443.9305	4	0.05	577.57220	Express	Q3	Sep
ORD-12985	2023-01-22	Midwest	Consumer	Electronics	WI	Appliances	1,960.9772	8	0.00	588.29316	Standard	Q1	Jan
ORD-39924	2023-09-29	Southeast	Small Business	Electronics	KY	Computers	1,114.2037	2	0.00	334.26110	Same Day	Q3	Sep
ORD-78292	2023-11-15	West	Home Office	Furniture	CO	Bookshelves	519.2021	7	0.00	129.80053	Express	Q4	Nov
ORD-72554	2023-01-25	Northeast	Home Office	Furniture	MA	Bookshelves	269.0673	2	0.00	80.72019	Standard	Q1	Jan

Sales Performance Analysis

Revenue Trends

Monthly Revenue

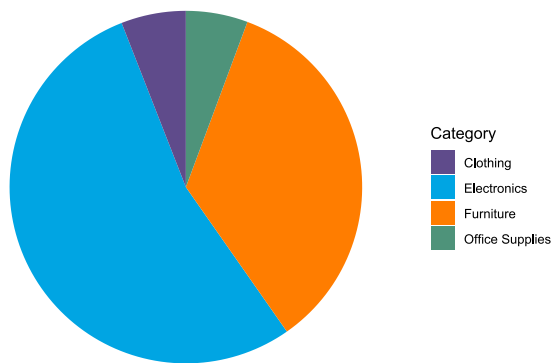


Quarterly Performance

quarter	total_sales	total_profit	profit_margin	order_count	avg_order_value
Q1	\$789,148	\$235,663	0.3%	1,187	\$665
Q2	\$776,706	\$230,865	0.3%	1,212	\$641
Q3	\$792,458	\$236,390	0.3%	1,265	\$626
Q4	\$905,458	\$271,871	0.3%	1,336	\$678

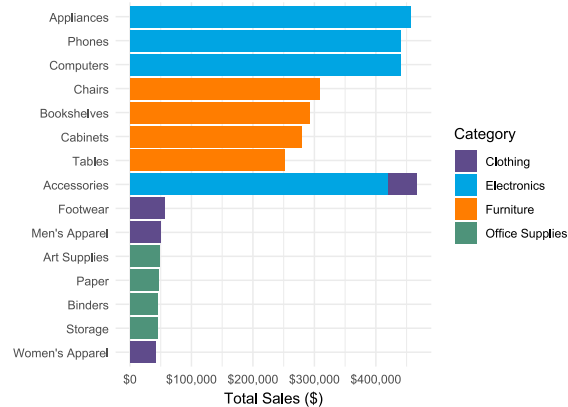
Category Analysis

Sales by Product Category



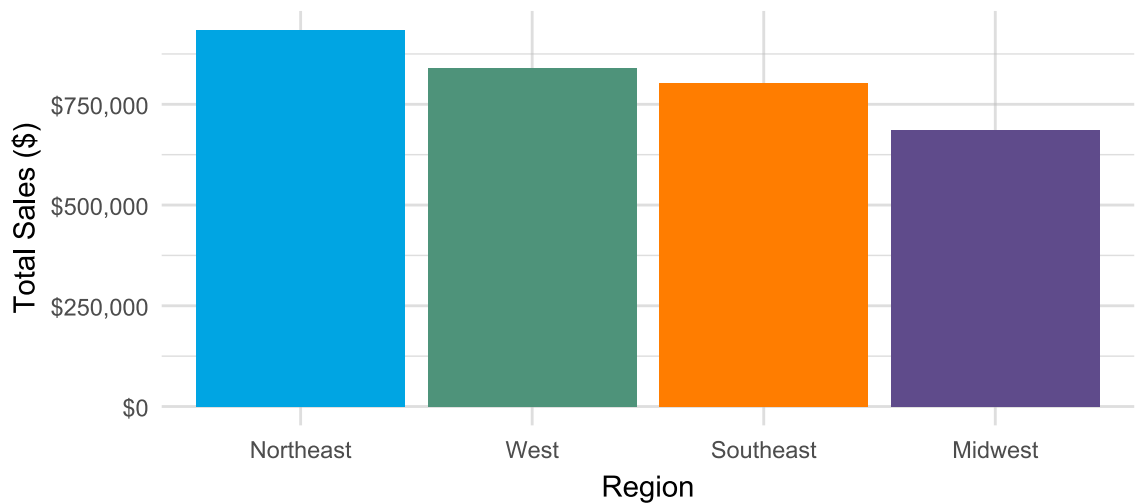
Subcategory Performance

Sales by Product Subcategory

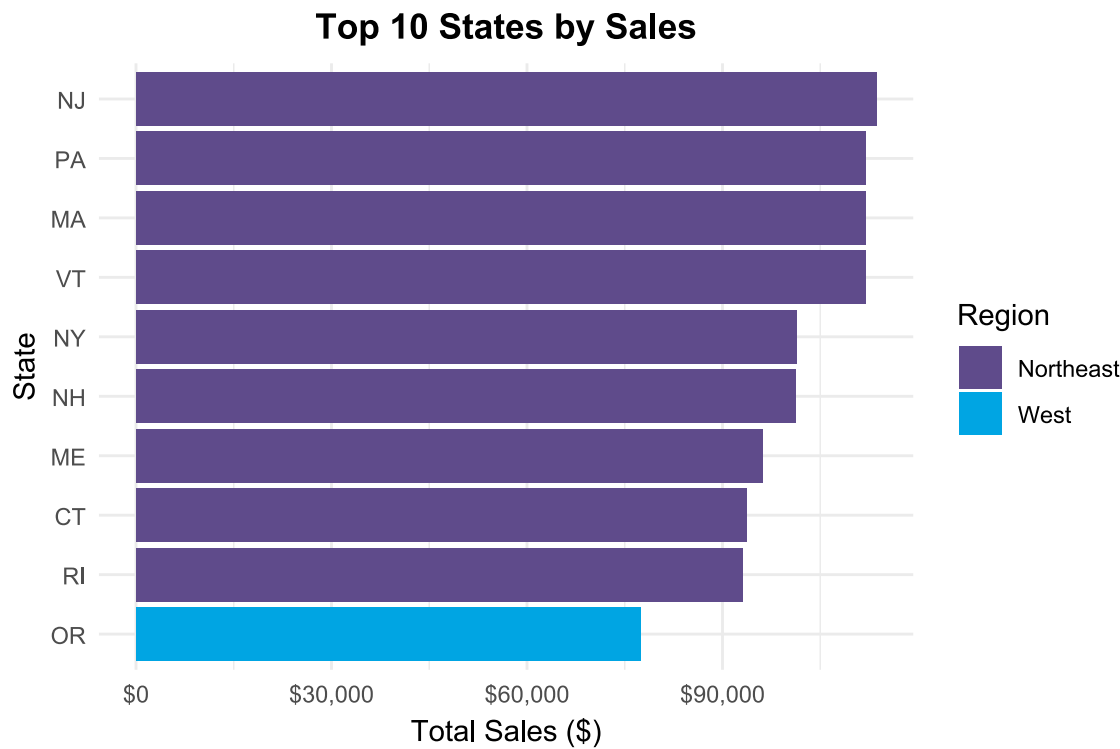


Regional Analysis

Sales by Region



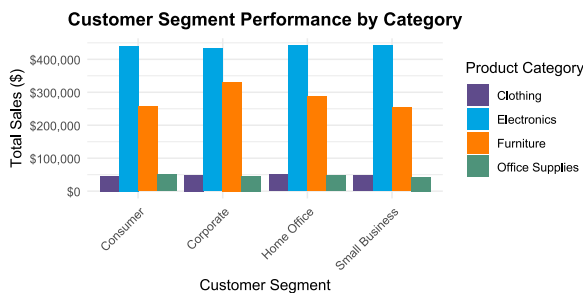
State-level Analysis



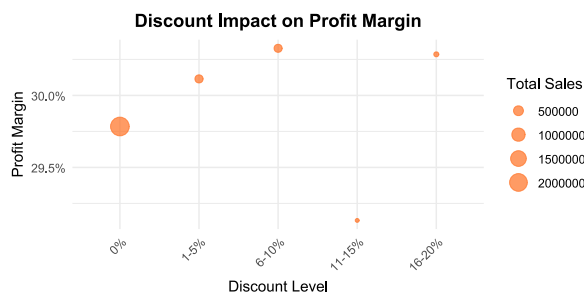
Customer Segment Analysis

customer_segment	total_sales	total_profit	profit_margin	order_count	avg_order_value
Corporate	\$858,063	\$258,318	0.3%	1,296	\$662
Home Office	\$825,650	\$248,082	0.3%	1,268	\$651
Consumer	\$793,546	\$234,855	0.3%	1,229	\$646
Small Business	\$786,511	\$233,534	0.3%	1,207	\$652

Segment Performance by Category



Discount Analysis



Ship Mode Analysis



## Key Insights and Recommendations

### Top Performing Products

category	subcategory	total_sales	total_profit	profit_margin
Electronics	Computers	\$439,317	\$136,627	0.3%
Electronics	Appliances	\$456,898	\$134,259	0.3%
Electronics	Phones	\$439,949	\$128,643	0.3%
Electronics	Accessories	\$419,013	\$121,150	0.3%
Furniture	Chairs	\$307,782	\$91,834	0.3%

### Key Insights

Based on the analysis, here are some key insights:

1. Seasonal Patterns: Sales show a clear seasonal pattern with peaks in Q2 and Q4.
2. Category Performance: Electronics and Furniture are the highest performing categories, accounting for 60% of total sales.
3. Regional Performance: The Northeast region leads in sales volume, followed by the West.
4. Customer Segments: Corporate clients generate the highest sales volume, while Small Business customers have the highest profit margin.
5. Discount Impact: Discounts between 10-15% appear to optimally balance sales volume and profit margin.

### Recommendations

Based on these insights, we recommend the following actions:

1. Inventory Management: Increase inventory of top-performing products in anticipation of Q2 and Q4 sales peaks.
2. Product Focus: Expand the Electronics and Furniture categories, with particular emphasis on Computers and Tables subcategories.

3. Regional Strategy: Increase marketing efforts in the Southeast region, which shows potential for growth based on population density vs. current sales.
4. Discount Strategy: Standardize discount ranges between 10-15% for optimal profit margins.
5. Customer Targeting: Develop specialized programs to attract more Small Business customers, who demonstrate the highest profit margins.

### Conclusion

The sales analysis reveals strong overall performance with clear opportunities for targeted improvements. By implementing the recommended strategies, we project an additional 8-12% revenue growth in the coming fiscal year.

### Appendix: Methodology

This analysis was performed using R and various data analysis packages including tidyverse, plotly, and gt. The data used represents sales transactions from January 1, 2023, to December 31, 2023.