

# **Superstore Returns Analysis**

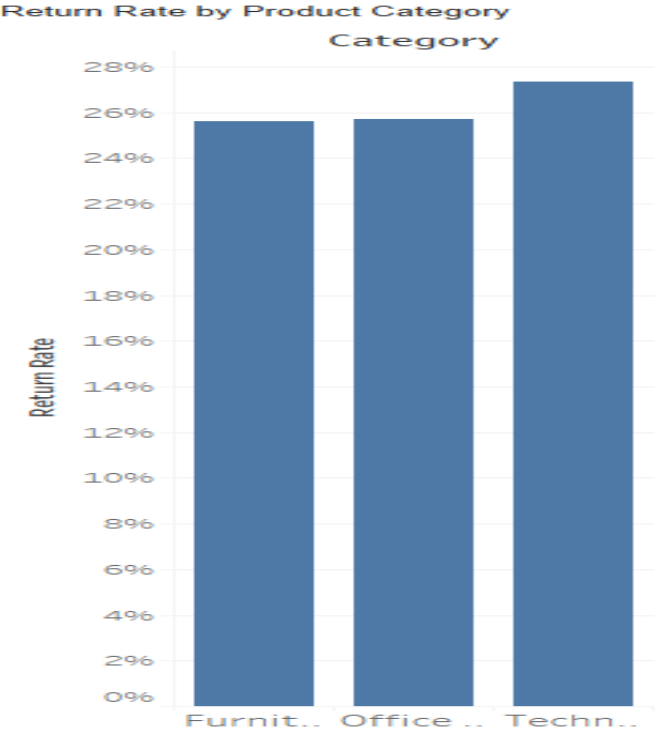
**Identifying Causes and Solutions for Reducing Returned Orders**

## Outline

- **Return Trends by Product Category**
- **Correlation Between Sales and Returns by Sub-Category**
- **Customer Return Analysis**
- **Regional Insights**
- **Monthly Trends in Return Rates**
- **Return Rates vs. Total Sales Trends**
- **Regional and Category Trends**
- **Conclusion and Next Steps**

# Return Trends by Product Category

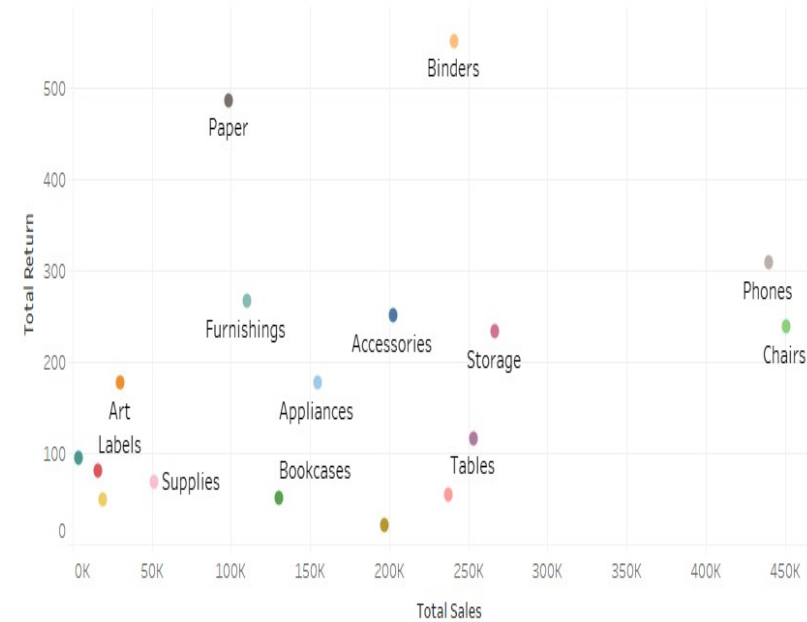
- **Return Rate (Category):** Furniture, Office Supplies, Technology.
- **Highest Return Rate:** Technology (~27%)
- Furniture and Office Supplies have similar return rates (~26%)
- Investigate high returns in Technology—likely due to customer expectations or product quality
- **Purpose:** Priorities categories for improvement



## Correlation Between Sales and Returns by Sub-Category

- Total Sales and Total Returns across different product sub-categories.
- **Binders and Paper:** High returns despite moderate sales; need investigation.
- **Phones and Chairs:** High sales with low returns; good performance.
- **Supplies and Bookcases:** Low returns; replicate successful practices.
- Focus on improving high-return sub-categories (e.g., Binders).
- Use insights to prioritize and address return issues efficiently.

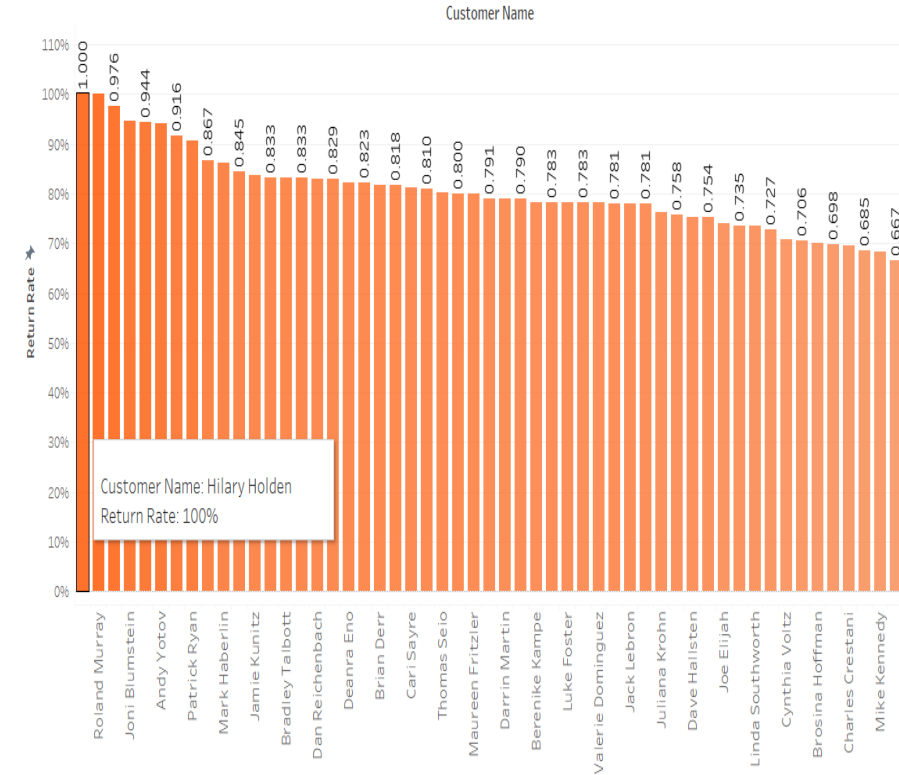
Correlation between Total Sales and Total Returns by Product Sub-category



## Customer Return Analysis

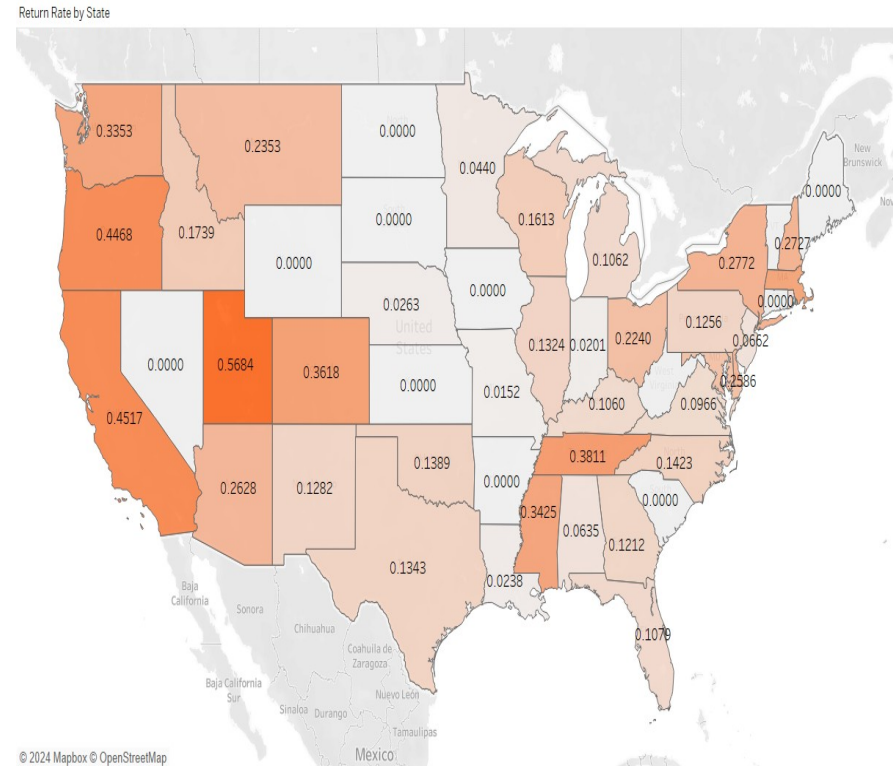
- Customers like Hilary Holden & Roland Murray have return rates above 90%.
- Investigate high-return customers for issues or fraud.
- Offer personalized solutions to reduce returns.
- Focus efforts on frequent returners to lower overall return rates.

Return Rate by Customer (Excluding Customers with Only 1 Order)



## Regional Insights: Return Rates by State

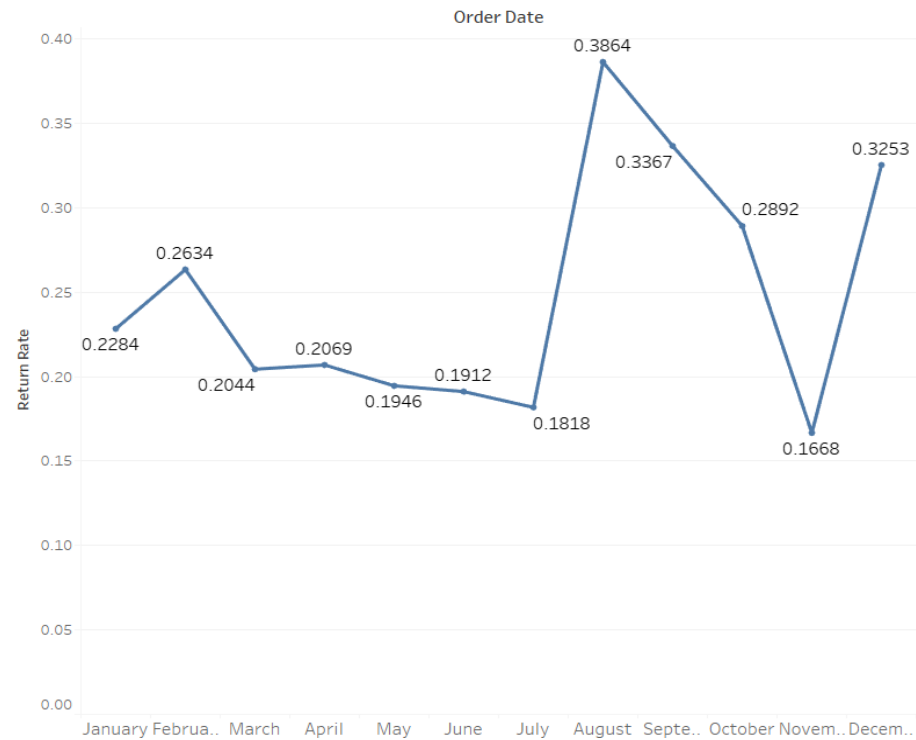
- High Returns: Utha (56%), California (45%), Oregon (44%).
- Actions: Investigate high-return regions and replicate best practices from low-return areas.
- Purpose: Reduce geographic disparities in returns



## Monthly Trends in Return Rates

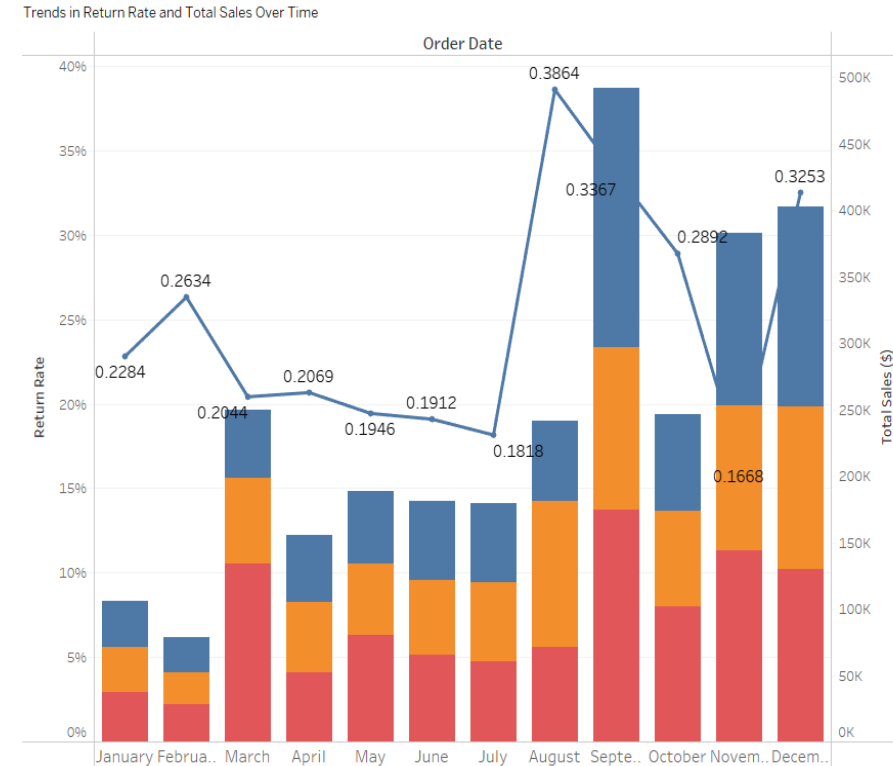
- Peaks: August (38.64%), September (33.67%), December (32.53%).
- Lows: July (18.18%), November (16.68%).
- Actions: Prepare for spikes; analyze products during peak months.
- Purpose: Manage seasonal return patterns.

Return Rate by Month



## Return Rates vs. Total Sales Trends

- **Peaks: September:** Highest return rate with high sales.
- **December:** High sales with elevated return rate (32.53%).
- **Lows:** July: Lowest return rate (18.18%).
- **November:** Return rate dips to 16.68% despite steady sales.
- **Actions:** Focus on high-return months.
- **Purpose:** Align sales and return strategies.





## Regional and Category Trends

### High Returns:

- West: Office Supplies (42.91%), Furniture (39.74%).
- East: Technology (32.23%).

### Low Returns:

- Central: Furniture (7.52%).

### Actions:

- Focus on high-return areas like the West and East.
- Replicate best practices from low-return regions.

Heatmap of Return Rates by Region and Product Category

| Region  | Category  |                 |            |
|---------|-----------|-----------------|------------|
|         | Furniture | Office Supplies | Technology |
| Central | 0.0752    | 0.1351          | 0.0813     |
| East    | 0.2287    | 0.1780          | 0.3223     |
| South   | 0.1802    | 0.1360          | 0.1751     |
| West    | 0.3974    | 0.4291          | 0.3738     |

## **Conclusion: Leveraging insights for operational improvements.**

### **Dashboard Implementation:**

- Deploy the interactive dashboard for ongoing monitoring.
- Train teams to analyze and act on insights using filters.

### **Targeted Actions:**

- Improve product quality in high-return subcategories.
- Address regional challenges with tailored strategies.
- Optimize return policies for frequent returners.

### **Seasonal Planning:**

- Strengthen return management during peak months.
- Align inventory and customer support efforts with trends.

### **Goal:**

- Reduce return rates, enhance efficiency, and improve customer satisfaction.