Introduction

This project involves analyzing the Superstore dataset to determine strategies for reducing the impact of returns on profits. I will present an analysis that identifies the factors causing customers to return their orders and provide recommendations for reducing the volume of returned orders.

Source Date

The superstore dataset includes two tables: Orders and Returns. This extensive dataset is provided in CSV format and is included in the attached zip file for reference.

Methodology

To identify the causes of returns, I performed a left join on the Returns and Orders tables. I created a calculated field **ReturnedCF** for returns, where **null** values are converted to **0** and **yes** values to **1**. The average of this field represents the return rate, while the total returns are the sum of these values. To pinpoint the root causes of returned orders, I developed over seven worksheets:

1. **Scatterplot**: Shows the correlation between total sales and total returns
2. **Bar Chart:** Illustrates the return rate by product category.
3. **Bar Chart**: Displays the return rate by customer, highlighting those more prone to making returns.
4. **Map**: Depicts the return rate by state to identify geographic concentrations of returned orders
5. **Line Graph**: Shows the return rate by month to identify any seasonal trends.
6. **Composite** charts: Two variations showing return rate across multiple factors.

Additionally, I created a low-fidelity mock-up of the dashboard with three variations, a template dashboard, and incorporated the worksheets into the final dashboard template. Finally, I constructed a story arc to guide the presentation.

Summary

- A scatter plot of sales versus returns shows a trendline indicating that as sales increase, returns also increase.
- A bar chart of return rates by category reveals that technology has the highest return rate
- A bar chart of return rates by customers shows the average return rate for each customer.

- A US map illustrates the average return rate by states; Utah, California and Orgon having the highest return rate.
- A line graph of return rates by month shows peaks in August and December.

Conclusion

Product Category: Technology has the highest return rate. Consider reducing prices or making them more affordable.

Geographic Focus: Uth and California have higher than average return rates. Increase customer support teams in these regions.

Seasonal Trends: Returns peaks in August and December. Offer special deals during back-to school and end-of-year periods.