Storytelling: SuperStore Presentation

Requirements:

1. Make the Returned field into a calculated field where the null values are 0 and the Yes values are 1
2. Build a scatterplot showing the correlation between total sales and total returns
3. Build a bar chart showing the return rate by product category
4. Create a filter to remove customers with only 1 order
5. Create a map showing the return rate by some geographic measure (state, city, etc.) to see if there is a geographic concentration to returned orders
6. Create a worksheet that shows the return rate by some measure of time (month, week, etc.) to see if there is a seasonal effect to returned orders
7. Build a composite chart showing the return rate for a mix of multiple factors (date/geography/product category/etc.)
8. Document dashboard design requirements
9. Create low-fidelity mockup of dashboard
10. Create a template for the dashboard
11. Create dashboard with relevant markers, images, and titles
12. Create a draft of the story
13. Explanation of charts and interpretation
14. Use of filters to identify root cause
15. Provide actions to be taken after identifying root cause
16. Write a conclusion with proposed next steps

Data Source:

- Superstore.xls file containing 3 tables - “Orders”, “People” and “Returns”

Tools Used:

- Tableau

Steps:

1. Made sure the Returns table is LEFT JOIN’ed onto the Orders table.
2. Made the Returned field into a calculated field where the null values are 0 and the Yes values are 1. Note that the average of this field is the *return rate*, while the *total returns* are the count or sum of returns.
3. Built at least one worksheet for each of the following:
    a. A scatterplot showing the correlation between total sales and total returns. Aggregated by product subcategory. Determined that sales do not always correlate positively with returns.
    b. A bar chart showing the return rate by product category

    c. The return rate by customer. To find customers who are more prone to making returns, added a filter to remove customers with only 1 order.
    d. A map showing the return rate by some geographic measure (state, city, etc.) to see if there is a geographic concentration to returned orders
    e. The return rate by some measure of time (month, week, etc.) to see if there is a seasonal effect to returned orders
    f. Two different kinds of composite charts showing the return rate for a mix of multiple factors (date/geography/product category/etc.)
4. Created a low-fidelity mock-up of the dashboard.
5. Created a template for the dashboard using empty containers to match the mock-ups.
6. Added worksheets to the dashboard template.
    a. Finalized the dashboards with relevant markers, images, and titles as needed.
7. Constructed a story arc for the presentation. Created a draft of the story using only captions for each Story Point. The draft story includes:
    a. A summary of the analysis of returns
        i. How should returns be measured? Is the return rate, the total cost of returns or the total number of returns a better measure? When is one better than the other?
        ii. What are the key root causes of returns?
    b. An overview of each component of the Dashboard
        i. Explain what is contained in each chart and how the chart should be interpreted
    c. A demonstration of how the Dashboard should be used
        i. Demonstrate how to interpret the Dashboard and how to use filters to identify root causes
        ii. Describe actions that can be taken after using the Dashboard to identify the root causes
    d. A conclusion with proposed next steps (e.g., implementation of Dashboard)
8. Added content to the Story Points
    a. Used the worksheets already created to support the Story Arc
9. Delivered presentation
    a. Prepared a 3 to 5 minute presentation of the Tableau Story.

Results, conclusions and recommendations:

- Return Rates are most dependent on product subcategory, month of the year, state of order, and product ship mode.

- Stop selling the 3-5 product subcategories with the highest return rates, or perform product quality assessments on them: Machines, Fasteners, Chairs, Appliances, Tables.
- Reduce focus on bottom 3 states - Utah, Oregon and California.
- Eliminate the option for same-day shipping altogether.
- Pay critical attention to return rates during the last 5 months of the year (except November). Potentially stop selling the bottom 3-5 subcategories during these months only, or eliminate the option for same-day shipping during these months only.