### Session 7 – Exercise 1-4 Week 7: Application of Color| Color is Difficult

### Intro

### Strategic Use of Contrast

### Color as a Pre-Attentive Attribute

### Topics covered

* 4 different scenarios with colors

### To Do

* Modify existing visualizations to a better visual experience.

### Instructions

### Scenario 1 - Sales and Profit by Supplier

1. Create a new sheet, rename to “Scenario 1”.
2. Use data source “Global Superstore”.
3. Add “Supplier” to Rows, sum of “Sales” to Columns to create a bar chart.
4. Remove the supplier “Others” from the view, by filtering “Suppliers”.
5. Sort the bar chart Descending, to get the highest volume on top.
6. Add sum of “Profit” to color (on Marks Card).
7. Change the color palette to “Orange – Blue Diverging”.
   1. Adjust the color legend, to have only two colors (edit color legend, tick of “Stepped Color”, select 2 steps. Observe the difference in the view.
8. Save the workbook.

Chart, funnel chart

Description automatically generated

### Scenario 2 - Sales and Profit by Category

1. Create a new sheet, rename to “Scenario 2”.
2. Use data source “Global Superstore”.
3. Add sum of “Sales” to Columns and sum of “Profit” on Rows to create a scatter plot.
4. Add “Category” to colors on Marks Card.
5. Add “Sub-Category” to Label to split the circles for each “Sub-Category”.
6. Adjust the color, opacity to 75% and a thin black border.
7. Adjust tooltip and add instructions in the title “Hover for Category Details”.
8. Chart, scatter chart

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9. Save the workbook.

### Scenario 3 - Product Sales vs. Goal

1. Create a new sheet, rename to “Scenario 3”.
2. Use data source “Coffee Chain”.
3. Add sum of “Sales” to Columns and “Product Type” to Rows. Add “Product” on Rows after “Product Type” to create a bar chart.
4. Change the “Fit” window to “Entire View” from the menu bar.
5. Add of sum of “Sales Quota” and “Hit or Miss” to detail.
   1. “Hit or Miss” will be added as “AGG” – since the calculated field is already aggregated.
6. Add a reference line per cell by using sum “Sales Quota”, change to the “Analytics” pane (next to “Data” pane).
7. Drag a “Reference Line” per Cell into the view.
8. Format and change the reference line to the following:
   1. Graphical user interface

      Description automatically generated
   2. Value: “SUM(Sales Quota)”, aggregation: Maximum, Label: None.
   3. Formatting: Line (thick black line)
9. Drag a “Distribution Band” per Cell into the view.
10. Format and change the distribution band to the following:
    1. Value: 60-80-100%. No label, no line, “Gray Light” fill. Tick off “Fill Below”.Graphical user interface, text, application, email

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11. Add “Met Quota?” to color. Format color, True = Red, False = Grey.
12. Adjust tooltip.
13. Save the workbook.

Chart, bar chart

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### Scenario 4 – Wildlife Strike (part 1)

1. Create a new sheet, rename to “Scenario 4”.
2. Use data source “Birdstrike”.
3. Add average of “Speed (IAS) in knots” to Columns and average of “Feet above ground” to Rows to create a Scatter Plot chart.
4. Add “Wildlife: Species (group)” to detail and “Time of day” to color. Adjust opacity for the colors to 60%
5. Change from “Automatic” to circles on Marks Card.
6. Add some filters to clean up the data.
   1. “Time of day” – remove “Null” value.
   2. Average of “Avg. Feet above ground” – special, select “Non-null values”
   3. Average of “Speed (IAS) in knots” – special, Select “Non-null values”
7. Adjust tooltip.
8. Save the workbook.

Chart, scatter chart

Description automatically generated

### Scenario 4 – Wildlife Strike (part 2)

1. Duplicate view one, “Scenario 4”.
2. Add “Time of Day” to Columns.
3. Save the workbook.

Chart, scatter chart

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