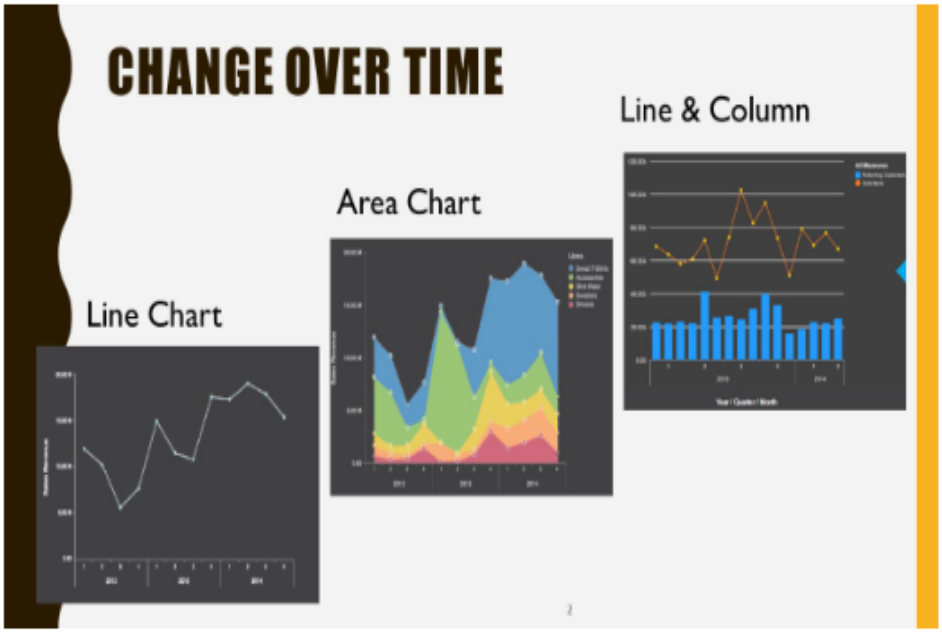
Selecting the right Visuals

Although, there are many visualization types available in Power BI with the Standard Visuals and a lot more custom visuals. Only a few of them are really often used to best convey the required information to users.

In selecting the right visuals, you can follow the following guides.

1. **Change over time:**

   When reporting on change over time, use either Line Charts, Area Charts or Line & Column. You will use a Line and area chart if you want to report multiple categories over time and also show the magnitude of difference between the categories. You will use a Line and Column chart if you want to compare two different numbers over time. Such as Actual vs Budget.

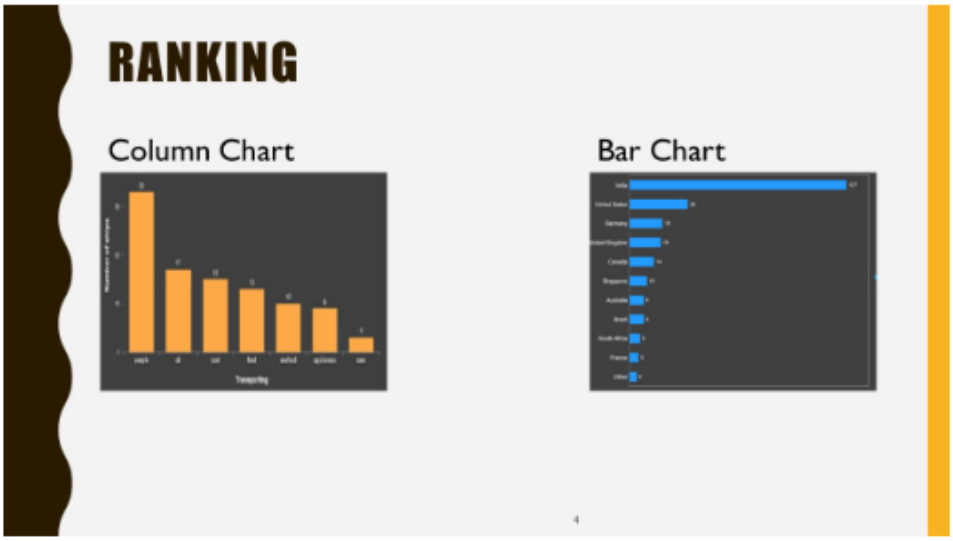


2. **Comparison:**

When comparing variables, you can use Column Chart, Bar Chart, Stacked Bar Chart, Stacked Column Chart.
Column charts and Bar charts can be used interchangeably, but it is preferable to use a Bar chart (Horizontal) when you can because it is easier to read than the Column. You can also use the stacked version of both charts if you are displaying multiple categories per variable. For example, You want to show total salaries by department, but will like to split it by gender as well. So you will have for example, each bar of department be split into two to represent Male and Female.

3. **Ranking:**

   if you want to display the ranking of categories. You just wish to show the numbers based on highest to lowest or vice versa, then simple Bar Chart or Column Chart will do.



4. **Part to Whole:**

   Part to whole charts show the share of categories from the total. Such as percentage share, volume share etc. For this, you can use the 100% Stacked bar chart, or 100% stacked column chart. You will use this if you are showing multiple categories per variable. Like the example given earlier on Stacked Bar and Stacked Column, except this time, the numbers will not be displayed in absolute terms but in percentages. So instead of saying total salaries of male staff in accounting department is 300,000 while Female is 700,000, the display will show 30% for male and 70% for female.

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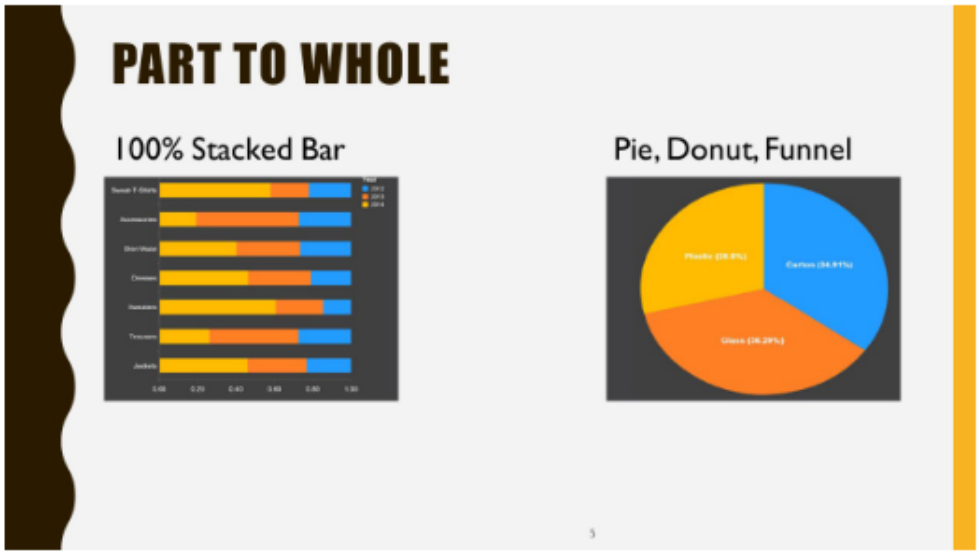
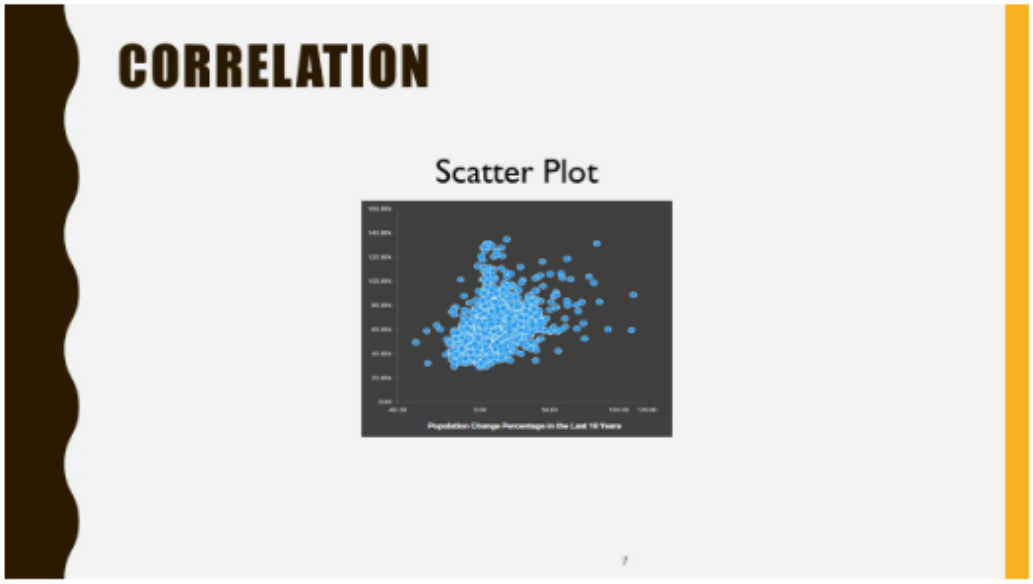
You can also use Pie Charts and the related cousin, Donut Chart. But be careful using this. In fact, don't use them if you have too many categories to show. It is way harder to figure what share is bigger from round objects. The work around could be to display the labels on each share. But then, the users have to read and the best visuals should convey information fast.

You can use a Funnel chart as well when you are visualizing the share within a process. A typical example is a marketing funnel. eg, Out of 1,000 emails sent, 85% opened the emails>>40% called back for further enquiries>>32% made a purchase.



5. **Correlation:**

This is the favorite of statisticians and scientists. To see how two numbers affect one another, use a Scatter Chart. A scatter chart will have the X and Y axis representing the two numbers. It will show dots (or other marks) with each mark representing a position of a variable on the two numbers. The pattern finally shown will tell if the numbers are related. That is, will the increase or decrease in one number lead to a corresponding increase or decrease in the other. Naturally, Sales and Profit should be correlated. And if you put that in a Scatter chart, your dots should almost show as a line and not very scattered.



6. **Geography, Overview (Tables), One or 2 Numbers**

Information with geographical category can be displayed on a Map.
Single numbers such as total sales can be shown as simple texts. The card visual in Power BI can be used for that.

Tables though, require further explanations. You should use tables when one of the following circumstances applies:

(a) You need to display different numbers of varying degree of measurement. Eg, Sales which is in Billions and Quantity which is in Hundreds or Thousands.

(b) You are displaying the information for a mixed audience when the users are not interested in comparing categories, but rather looking up their area of interest. For example, A report you will send out to all employees with their test scores. Each one of them just wants to look for their names and see their scores.

(c) If you need to see the exact numbers. In fact, this is the reason why we mostly use charts because we are only interested in seeing patterns, not exact numbers. So if you need to see the exact numbers, you are looking to use a table.

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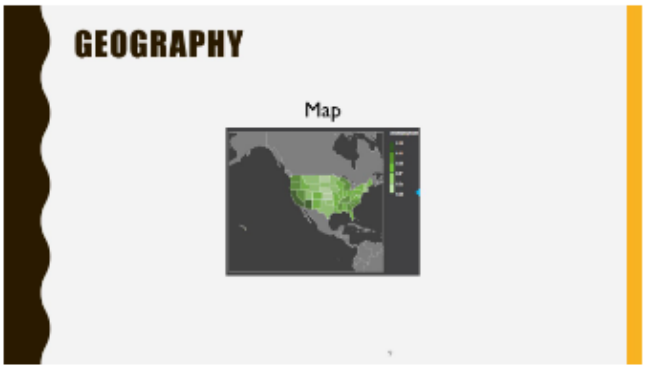

We should not forget about colors. Be mindful of the colors you use as they also affect how a report is read.

CHOOSE COLORS WISELY

Use loud colors only to call attention

DESIGN WITH CARE!

"The best visual is the one that uses the least amount of ink to display the highest amount of information"