



Data Visualization Design:

Data visualization can be a powerful tool. Only, however, when done correctly. As we've mentioned, a poorly designed visualization can end up doing more harm than good. So, it's important to make sure that your data visualizations are effective.

When designing your dashboards and visualizations, there are certain principles or tips you should keep in mind to achieve this efficacy. These will enhance the value and effectiveness of your visualisations. They are:

1. Know your audience and your objective.
2. Choose the right types of visualizations.
3. Make them organized, consistent and intuitive.
4. Give context.
5. Less is more.
6. Use colors wisely.

### **1. Know Your Audience and Your Objective**

Before choosing your datavis design, it's essential that you know what you want to achieve from your visualizations, and who will be viewing them.

This is essential because if you design based on what you want to communicate to your end-end-viewer, it's more likely that they will easily be able to grasp that information.

Your job is to make it easy for your viewer to make the business decisions they need to based on the data you are displaying for them. So, you will need to ask yourself what question they are trying to answer with this data and work from there.

You will also need to assess how familiar they are with the information you are presenting. And, you should keep in mind their abilities to read different kinds of graphs and charts. From there you can decide how simple or complex your visualization can be, and whether you need to add any explanatory notes.

### **2. Choose the Right Types of Visualizations**

In order to choose the right kinds of visualizations for you and your stakeholders, you have to know a little about the different kinds and what purpose they serve. Let's take a look at a few of the most popular options:

- **Bar graphs** - Most people are familiar with bar charts which show bars plotted along axes and are used to compare different factors or categories. They are great for making comparisons.
- **Tables** - Another old favorite, tables are made up of rows and columns and are good for showing a lot of information in a tidy, easy-to-read way.



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- **Line Charts** - These involve points that are plotted along axes and are good for tracking trends and changes over time.
- **Scatterplots** - These show different variables plotted along axes with dots. The dots form patterns which allow the viewer to draw their conclusions. They provide a good way to show non-linear patterns.
- **Pie Charts** - With these you can assign different variables or different quantities to portions of the circle (or pie) to then compare those variables. They are a simple, easy-to-understand chart.
- **Infographics** - these are illustrations that offer an easy way to view a lot of information. When done well they are aesthetically pleasing and clear.
- **Word clouds** - Essentially a visual representation of words, a word cloud will highlight and show words that come up in data with higher frequency. These are great for keyword data.
- **Maps** - Maps are another familiar visualization and are great for showing data related to geographical regions or locations.

To get more information on the different types of visualizations, take a look at our data visualization types post.

### 3. Make Your Visualizations Organized, Consistent and Intuitive

The whole point of data visualization is that the viewer will understand the data better than if it were in its raw form. It makes sense then, that the visualizations need to be intuitive and well organized.