Data Visualization and its impact on Decision Making

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Why Data Visualization?

In this converged world that we live in, vast amounts of data are created every second. Further amplifying this are the multitude of devices such as smart phones, tablets, portable drives and laptops to name a few. All the while large amounts of data are being churned out and stored. In a nutshell that is what we call Big Data. Information and data is only useful when it is deciphered in a prescribed context and simplified to an extent that its gleanings can be utilized.

Enter the vast creative realm of data visualization. To put it simply, data visualization takes complex numbers, data and information and represents it in an easy to understand visual or pictorial manner. To take that idea further, data visualization will allow even a non-domain expert to easily grasp trends, behaviors or data and make appropriate business decisions. Data visualization has become an integral part in our day to day business decision making process.

Impact on Decision Making

When information or data is represented in a visually appealing and simplified manner, it allows decision makers to take cognizance of all the facts and parameters at one glance. This enables them to take decisions more quickly, effectively and with a clear understanding of a situation. Of course, all this puts even more pressure on the managers or the person who is putting the data together. It is important to represent accurate data for visualization purposes to the decision makers. However, assuming data is accurate represented and optimally visualized, decisions makers can move astutely and with agility and in a lot of cases with real time data on hand. That is the power of data visualization when presented in the most simple and effective manner.

Forms of Data Visualization

Data can be represented in many ways and these are constantly evolving as managers and decision makers are finding new ways to easily showcase data. Touching upon a few broad types of visualization methods will give readers an understanding of what to expect.

Heat Maps: Say you were a mall owner or super market owner and you wanted to show potential advertisers key activity during a certain day of the week. A heat map will allow you to showcase with color, patterns of customer behavior and movement during specific times of the day or week. This at a quick glace can enable advertisers to make informed decisions on launching specific promos or initiatives as they had planned.

Graphs: Whether it's a bar graph, pie chart, scattered graph or line graph all these are visually appealing and quick to grasp. One that most of us would be familiar with is an ECG (electro cardio gram), which is so easy for anyone to start grasping. One does not need a medical degree to decipher what an ECG is showing you. That is a very clear example of effective data visualization

Infographs or Visual Aids: Our brains are designed to process visuals a lot more easily that text. Hence a combination if visual imagery and short text works extremely well to highlight critical information, outliers or anomalies.

The above are just a few easy ways in which data sets can be easily represented and showcased. While there may be several creative ways to represent data, the bottom line is that the simpler data is showcased, the faster and more easily can decisions be made.