**Data Visualization and Discovery for Better Decision Making**

1. What are the key points or issues that have been highlighted in this paper?

* When creating data analytic tools for users in a company or customers, it is important to gear the design of the KPIs and data visualization interfaces to the clients’ needs, answering key problems, and providing a platform for interaction from all levels of the company
* Implementation of data visualization technologies does not necessary require IT specialists, but does require company cooperation on all levels to influence the business performance of the company
* Data visualizations provide companies to view simpler overlying issues of their company, mine novel data which was previously hidden, and create an encompassing model of the progression of their company
* Data visualizations provide companies greater predictive power in data discovery and making intelligent business decisions in a shorter amount of time

1. How would you rank them? Why?

* Initial consideration of what the future clients, customers, or company users goal in using data visualization should be held at the highest priority, since without understanding this fundamental purpose of data visualizations, it is possible to become misled away from the initial visualization’s purpose
* Outlining which KPIs or visualizations the company needs to focus on in order to reach their goal will provide for concrete aims to be met over time
* Providing a pipeline for designing and implementation of the data visualization will provide intelligent and efficient revision to the KPIs, data figures, or interactive surfaces
* Feedback and quantification of data visualization effects should be developed in order to understand if additional modifications are needed to be made

1. What are the common and/or unique elements in the six cases?

* Through the use of data visualization tools, the companies were able to uncover novel information for the companies to make intelligent business decisions
* The use of data visualizations saved time for the company
* Visual analytics allows for better performance management as quantification is matched to company known terms
* Business booms as a result of proper use of visual analytics

1. What were the key success factors in these cases?

* The companies were open to using and experimenting with data visualization tools
* The design of the visual analytics tools directly answered specific questions asked by the companies ie. What kind of customers will come? How will this change effect our strategy? Etc.
* Data use required analysis of past data collected along with forecasting or predicting potential consequences of model formulations

1. Have you ever worked in an environment where a similar scenario played out? If yes, can you describe the similarities and/or differences?

Yes. I am currently working in a cancer contract research company which largely performs only biological assay data, but has customers often asking for gene expression and drug perturbation data which the company currently cannot supply. Therefore, my task was to curate, normalize, and clean data and present this data not only as cleaned excel files but implementing a variety of dashboards using the Tableau platform for allowing the customers and company employees to supplement their work with in silico data. At first, the company was skeptic as to how to use the platform but after demonstrating its strengths and ease when performing analysis, the company employees began using the tools.

1. How would you have handled it? As described in the case study or differently?

I believe I handled the situation well and am planning to create thorough tutorials for the company to both have the ability to mine data from the data visualization dashboards which I have created as well as design their own dashboards using company generated data.

1. Did the TDWI paper:

Highlight any specific aspect of dashboards and/or scorecards?

Yes. The paper made a clear distinction between dashboards and scorecards expressing when either needs to be used by a company.

Create any confusion or raise questions?

No.

Reinforce or change your view about any aspect of data visualization?

The paper only reinforced my support for data visualization tools and demonstrated real world strengths of data visualizations.

1. What are your two key takeaways from this paper?

* In order to make the use of data visualization tools, clear and concise questions must be asked by users and clients.
* Data visualizations are powerful and as businesses progress, data visualization will only continue to dominate as supported by evidence shown by the TDWI paper’s statistics.