Tableau Project Original Proposal

I chose to analyze a dataset of historical sales from a toy vehicle manufacturer over the course of three years (2003 to 2005). I chose this topic because I have a background in supply chain management and forecasting and I wanted to use those skills to visualize possible forecasts for different categories of products and customers.

The objective is to determine the demand for each category of product for each customer in order to manufacture the appropriate number of toys. The forecast will also approximate the total amount of sales to be expected in the following year.

My presentation will be geared toward the Director of Supply Chain Management for the company, who will in turn present to various company executives. The persona document is below.

I found a dataset on Kaggle that includes thousands of records of sales data for toy cars, trains, ships, and other vehicles. This is a great source to use because the sales are broken down into categories as well as individual product codes.

There are several ways that I might present the information. I can keep it simple and just analyze each product category individually. To make the project more complex, I can analyze the data in subsets of customers or countries. I also plan to analyze the total amount of sales for all products by year to make an overall prediction for the following year. It may be useful to create a map visualization to show how the countries compare to one another.

The biggest challenge I foresee is using the forecast function of Tableau. This is something the course has not covered, but it would be an extremely helpful tool if I were to get a job in demand planning or something similar. I plan to learn more about this function through videos and other online resources.

Persona Document

- Name: Tom Johnson
- Age: 40
- Gender: Male
- Tom is the Director of Supply Chain Management. He needs to determine the quantities of products that need to be manufactured in order to meet customer demand. He also needs the approximate total sales to be expected in the following year, 2006. He will be presenting this information to company executives to make decisions about inventory and business plans.
- Tom is fairly good with technology and should be able to navigate Tableau stories during the presentation. The information should be thorough but succinct in order to convey big picture ideas to executives who have limited time to make decisions.
- Tom will be presenting the data on a screen in a meeting room and using filters to change the views on various charts.

Final Comments

Final Visualization:
https://public.tableau.com/app/profile/kyle.pelling/viz/ToyVehicleSalesForecastPresentation/ToyVehicleSalesForecastPresentation?publish=yes

Design Choices:

- I chose to represent each category of product with a different color. This makes it easier to distinguish between categories when comparing two or more in the same screen.
- I chose to use filters to allow the presenter to select the categories being displayed in the forecast. This allows the audience to more easily compare and contrast any combination of categories in one screen, as opposed to giving each category its own visualization.
- I only used numbers and data labels to highlight the most important aspects of the visualizations that answer the main questions of the project. I avoided using excessive amounts of information because the audience is full of company executives who have limited time to analyze data to make decisions.

My project mostly kept in line with the original proposal. I only slightly modified the questions I wanted to answer during the exploratory phase of the project. The final three questions ended up being:

1. How many units of each category must the company produce to meet demand for the upcoming year 2006?
2. What are the estimated sales numbers per month through the end of 2006?
3. What country generates the most sales, and what markets should be developed?

I managed to answer these questions using four charts that succinctly summarized and explained the historical data to produce forecasts.