Jacob Hesker W4 assignment 1

Sales By Category Over Time

The First practice I completed was with the sales "Sample-Superstore" data set. This dataset was great. It allowed me to work with a great deal of data that frequently occur in many practical applications.

To familiarize myself with the dataset and get an overall idea of the data ranges and other factors, I decided to get a general overview by analyzing one of the most common key metrics among many businesses, quarterly sales.

Viewing even a simple line graph can be exceptionally useful if correctly utilized. I chose to look at the average sales over time based on a quarterly and monthly basis. A four-year time-lapse seemed to offer an optimal compromise between identifying both long-term and short-term patterns for the individual products and any possible relationships they may share. Implementing the selectable key from Tableau also allows for a closer look at a particular product.

Product Red appears to have significant spicks in sales around the month of November, with a much higher dispersion rate. There does seem to be a clearly defined lower limit. Even with this seemingly limited information, there are infinitely many implications this may have. For instance, one could continue to look deeper into why the lower limit here seems to be uniformly defined. This product may be essential to its consumers' infrastructure and, therefore, a lower limit representing a minimal operating capacity for the population. Despite the larger dispersion of the data, a relative max and min do seem to occur in a uniform frequency, suggesting a consistent supply and demand shift.

Similar logic should apply to the other products and their possible relationships. One possible relationship that could exist is between the red and blue companies is that they seem to alternate from direct to inverse every other year. This pattern could not prove to provide valuable insight. However, depending on the path I wanted to explore, I would consider taking random samples over a more extended period to see if this relationship holds.

The yellow product seems to generate pretty consistent revenue. Unlike the more widely dispersed product, this product appears to have a reasonably constant sales rate year-round.

Many of these patterns and the possible logic that I have discussed here can have an enormous impact on the Analyst, helping determine what avenues to pursue to continue their evaluation. These theories are not fact and would require further analysis to ensure validity.

