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STMATH 493: Data Analysis and Visualization
Visualization 1: Rating Correlations by Customer Segment

I found this visualization to be incredibly intellectually stimulating. The author chose to visualize the relationships between nine different combinations of rating metrics; this allows the viewer to see a much larger picture than if there was only one relationship displayed. The author chose moderately distinct colors, which helps the viewer distinguish the relationships between ratings and customer retention. A detracting feature of the colors, however, is that the yellow chosen for “1 Year or Less” is quite similar to the orange chosen for “1+ to 2 Years”, which forces the viewer to more closely associate the two variables, or possibly mistake one for the other. I would have chosen a more distinct coloring in this context.

I found the scatterplots quite easy to understand, as well as the author’s use of bubble-sizes to indicate sample size for each industry. By using pages for the different industries and job functions, the viewer can toggle between different combinations to analyze smaller subsets of the whole. This visualization does seem to have a more technical audience in mind, rather than the public, due to its complexity and would lose a lot of its functionality outside of the digital environment. If this visualization were static (such as in a textbook), it would require quite a lot of background explanation, as well as risk being too hard to understand. This restricts the application to an individual level, where understanding the data would be difficult without the ability to explore and manipulate the dashboard.

The use of trend lines helps one notice which rating combination is most affected by the length of being a customer. For example, when looking at the **Reliability** with respect to **Recommendation**, the viewer can see that the length of being a customer has much less of an impact on the rating when compared to that of the **Ease to Buy** with respect to **Satisfaction**. This is because the space between the trend lines is greater for the latter. The convergence (or divergence) of the trend lines also displays the weight that the length of being a customer has on the ratings. When looking at the **Ease of Use** with respect to the **Recommendation**, the viewer can tell that the length of a being a customer has less of an impact on the **Recommendation** as the **Ease of Use** approaches its maximum value of 10.

Because this visualization has many dimensions for which the viewer can draw conclusions, it is very useful in an educational setting. With respect to creation, this visualization uses multi-axis graphs, trend lines, detailed tooltips, scatter plots, and sample-size bubbles, which suggests that there were a handful of table calculations and forethought involved. The use of pages takes the visualization a step further, and really expresses all the data in a user-friendly and interactive manner. Exploration of the dashboard allows the viewer to ask and answer questions about the data, with a clear way to support their findings.