Food Sales Predictions

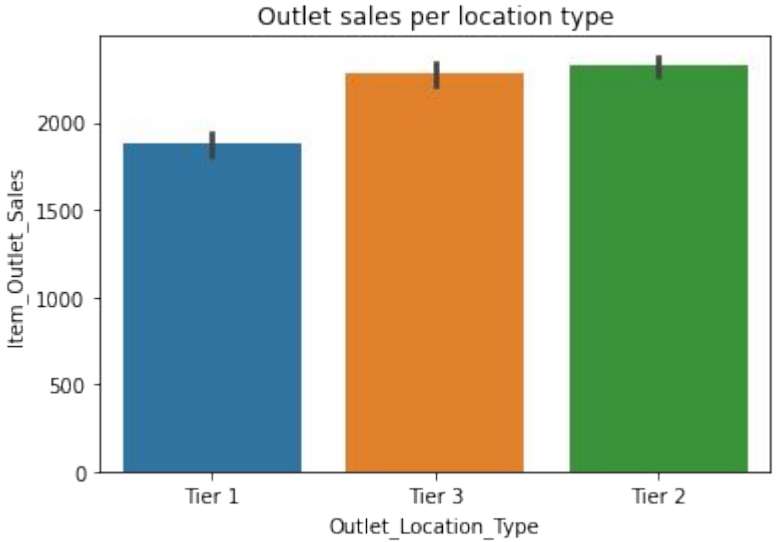
Pete Hess

Better sales now

The modern consumer has many, many choices when it comes to where they buy their food. Thankfully, there are many, many consumers, making for a vast amount of data. With this data, I've pinned down two insights that will result in substantial impact.

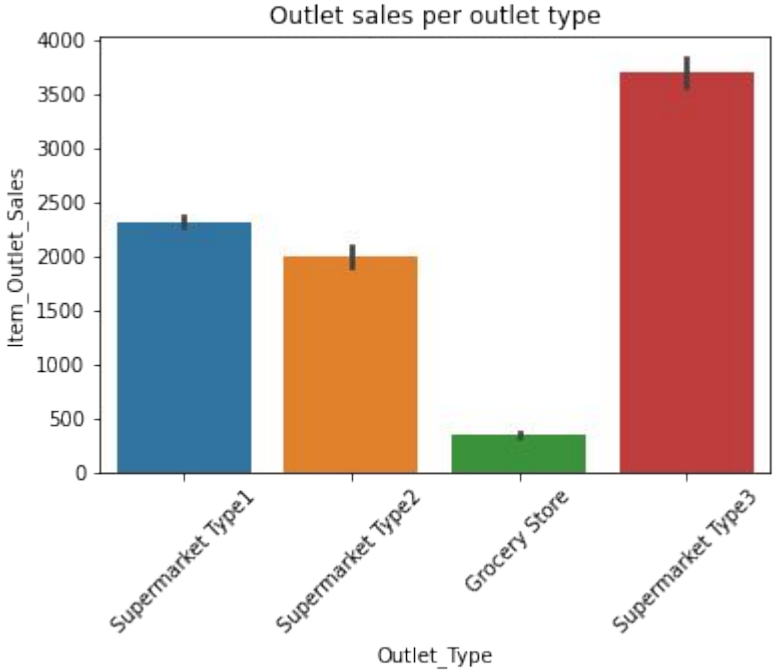
Outlet sales per location

As can be seen in the visualization, there is a noticeable difference in sales per location type. Tier 2 clearly brings in more money than Tier 1, but Tier 3 is not far behind. Much more effective than concerning one's company with getting a Tier 3 to make as much as Tier 2 would be getting a Tier 1 to make as much as a Tier 3.



Outlet sales per outlet type.

In this visualization, we can see that outlet type also has a substantial amount of influence on sales. Grocery stores make by far the lowest amount, whereas the lowest of the Supermarkets does about four times better. The difference in sales between a Type 1 Supermarket and a Type 2 is minor, though a Type 3 makes almost twice that amount.



On second thought...

- Clearly, the best combination of location and outlet size would be a Type 3 Supermarket in a Tier 2 location. However, much could be said for putting in a grocery outlet in a Tier 1 or 2 location to increase sales for the smallest earner, thus creating a more thriving sales ecosystem. Similarly, a Type 3 Supermarket could be built in a Tier 1 location and make the entire location more profitable by proxy.

When people think about where to get their food, they aren't thinking about what will make the company facilitating it the most money. They are thinking of convenience and efficiency in terms of size (outlet size) and distance (location). By focusing efforts on making the lowest earning outlets more profitable, as well as the lowest earning locations, a company becomes capable of becoming a name for consumers in more areas, and for more varied demographics.

Future modeling

- Outside of predicting for sales using visualized data, one can further predict outlet sales using a variety of algorithmic means. My modeling has shown that treating the data as a regression problem, instead of focusing on classifying it by location and outlet size, can be quite detrimental to prediction. All this means for you is that the real predictor is where food is sold, not how much of what kind.