Northwind Company Analysis

By Michael Noel

Who is Northwind ? What do they do?

- Northwind has offices in the state of Washington , USA and London,England.

- Northwind sells bulk food to grocery stores, gas stations, and other people.

What does Northwind want to know?

- Do all countries order the same amount ?

- Can Northwind trust that top customers will stay customers?

- Are some products worth more than others ?

- Whether some customers are better than others?

- Does a discount mean higher average quantity per order?

Do all countries order the same amount?

- No, all countries don't buy the same amount in dollars of product.

- The top countries are USA, Germany,Austria,Brazil,France

- The bottom countries are Mexico,Portugal,Norway,Argentina,Poland

- There is more than a 10X difference between the two

Can I trust that the top customers will stay customers?

- No, the top customers do not fit into the normal distribution of customers. The normal distribution is the predicted value based on the average of customers. The predicted vs the actual is different. Meaning that since the actual isn't normally distributed , human events are normally distributed, that the top customers are either too good or too bad compared to what they should be overall if there were more top customers in the sample.

- 65% confident that it is different
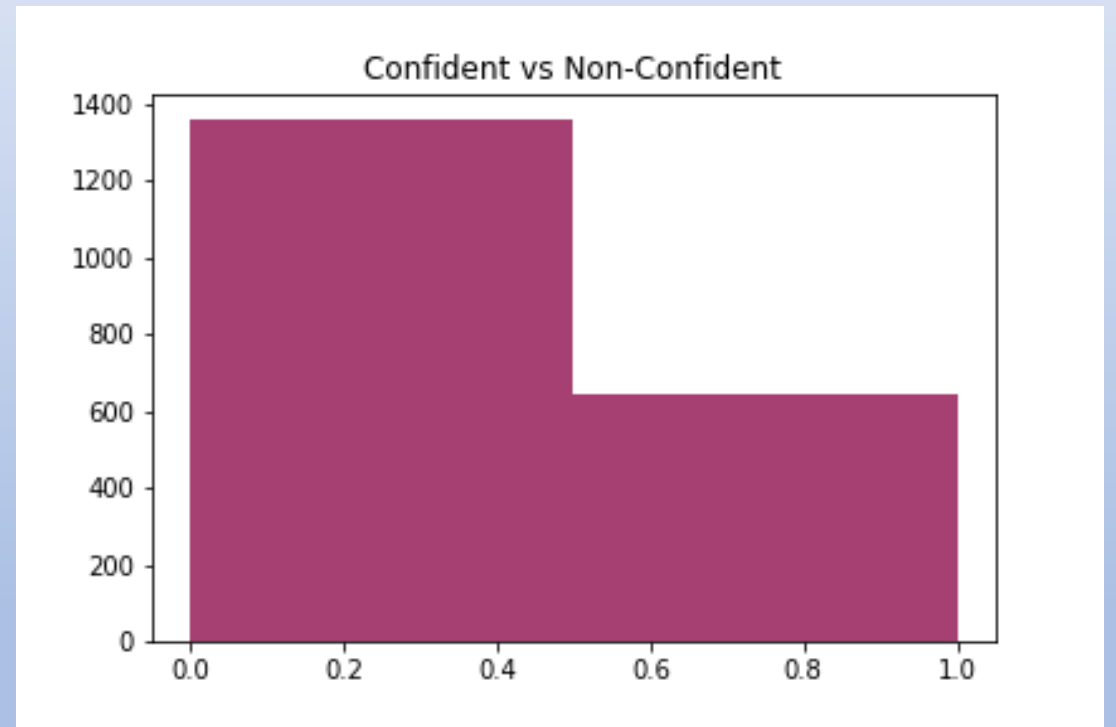
Are some products worth more than others?

- Yes.
- The top half of products ordered by how much they are ordered were ordered a lot more than the bottom half unpopular products. I have 95% confidence and 100% power meaning the results can be replicated nearly 100% of the time.
- From 5X – 10X difference in amounts of orders
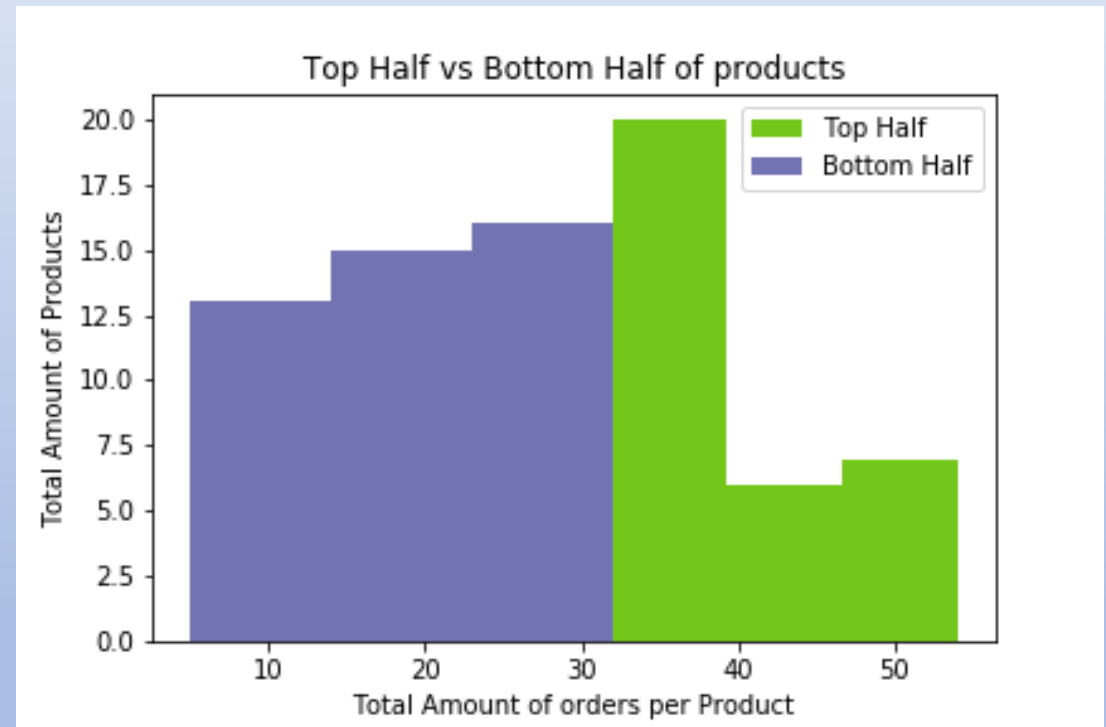
Are all the customers equally as good?

- No

- There are customers who buy more dollar value than other customers

- The best customers should get extra good treatment.

- 100% replicatable and with 95% confidence.

- 20X-100X difference in total sales difference between top and bottom customers
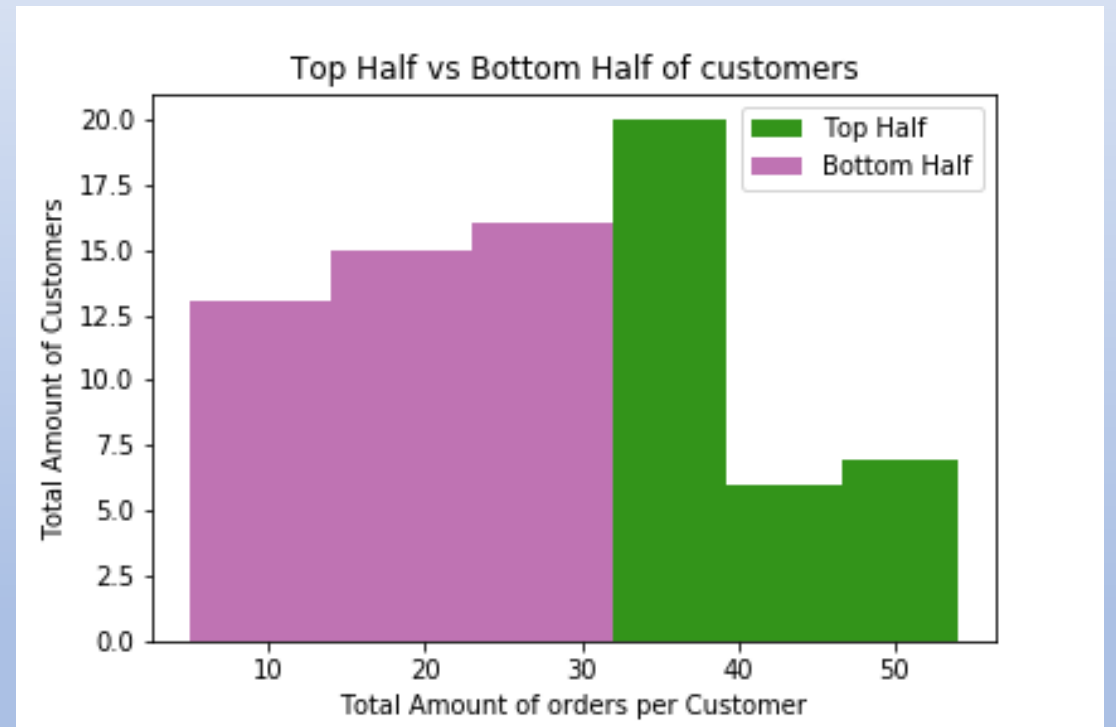
Does having a discount rate mean higher quantity ordered per order?

- Yes, but only for some discount rates
- 15% and 25% discounts mean more quantity per order
- 82% and 82% replicatability and 95% confidence.
- 33% increase in quantity per order on average

Recommendations

- I would recommend swapping out the low selling products for new ones to try to get more business.

- I would try to make more sales in the best countries and areas. USA, and Europe.

- I also would make an attempt at getting more historical data and profit margin data to make the analysis about making a profit.

Future Work

- There could be more data analysis if there is more data on profit margins.

- There could be more of a historical look at numbers.

- See if certain employees perform better than others

Thanks for looking at my work!