

Apprentice Chef | Business Insights

Machine Learning

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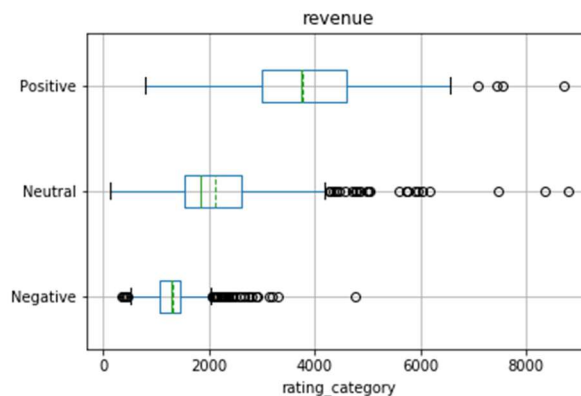
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Apprentice Chef offers an innovative product for its customers. Their main idea is based on delivering a chef experience for people interested in paying additional money to get the entire solution to have available a fancy tasty food with no effort. And, by analyzing their dataset, we created a model that made it possible to check important KPIs, the possible impacts they cause at the company's revenue, and two main insights that can be gathered from that. The **R-Square of the model is 0.881**, which shows the accurate is the model.

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                        OLS Regression Results
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Dep. Variable:          revenue    R-squared:                0.881
Model:                  OLS        Adj. R-squared:           0.879
Method:                 Least Squares    F-statistic:             463.0
Date:                  Fri, 06 Mar 2020    Prob (F-statistic):       0.00
Time:                  14:29:13    Log-Likelihood:          -10766.
No. Observations:      1459    AIC:                     2.158e+04
Df Residuals:          1435    BIC:                     2.171e+04
Df Model:              23
Covariance Type:       nonrobust
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Business insight 1:

In the graph below, it is possible to visualize how different is the amount spent per customer based on their satisfaction, which was measured by grouping the ratings.



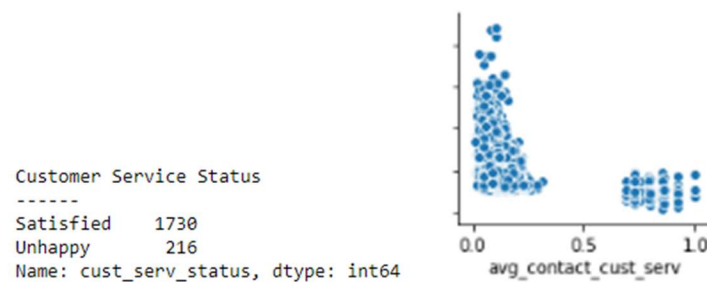
Moreover, there is an interesting association among the interactions of the customer with the platform and ratings and revenue. If the customer clicks on photos or spends more time watching videos learning how to prepare their meal, the tendency is to get higher revenue. On the other hand, there is a strong

negative association with average clicks, which may lead to the assumption that these customers had a higher difficulty to navigate the website.

revenue	1	0.61	0.6	0.64	0.44	-0.55	0.36	-0.36
med_meal_rate	0.61	1	0.48	0.49	0.36	-0.86	0.4	-0.4
	revenue	med_meal_rate	total_meals	avg_prep_time	larger_order	avg_clicks	Satisfied	Unhappy

Business insight 2:

There is a clear threshold on the number of interactions the customer is willing to have with the customer service. The revenue this customer will generate drops drastically if the interaction is higher than 0.5 orders on average, i.e., 1 interaction with customer service every 2 orders (and that happened with more than 10% of its customer base).



We can notice this customer tends to have a lower interaction and to spend less with the company. Analyzing possible reasons that the customer may be over contacting the customer service, the higher assumption is the percentage of late deliveries because there is a positive association among these variables.

Unhappy	-0.36	-0.39	-0.31	-0.4	-0.23	0.31	0.5
	revenue	total_meals	avg_prep_time	med_meal_rate	larger_order	avg_clicks	pct_late_deliv

Actionable recommendation:

Our recommendation for Apprentice Chef is to focus on multimedia content on their website and social media. Indeed, the UX team may review the website structure with IT to decrease the links needed to navigate and increase the multimedia contents per meal.

Considering the association among these contents and the revenue, focusing on that will boost brand awareness but possibly also return on higher revenue. However, since association not necessarily means causation, we recommend first proceed with an A/B test to measure the results before the final implementation, especially when it comes to restructuring the website.