A screenshot of a restaurant review dashboard

Description automatically generated

[**Dashboard Link**](https://isbhydmoh-my.sharepoint.com/:u:/g/personal/yashodhan_nareddy2025_isb_edu/EUJH-Zp-nAZAnLwNYiIH4J4BiM-48FD5hQLv95iyEkw3xg?e=mM4jMW)

**Executive Summary**

The business problem that we have identified in this case is to find out if offering discounts leads to better online reviews for restaurants. Once we established that higher discounts were leading to better reviews, we dove deep and explored the specific factors contributing to this outcome. While on a surface level it may appear that higher discounts improve reviews, we discovered that other factors such as cuisine, restaurant location and the restaurant's age all play a role. A deeper analysis helped us understand the specifics of these relationships.

**Analysis and Inferences**

Initially, we wanted to see if offering discounts greater than 10% helped restaurants get better online ratings. We looked at data from April to October 2023 and compared restaurants that gave discounts with those that didn't. Restaurants with discounts consistently got higher average ratings every month. Especially in July, when discounts started, ratings for these restaurants jumped, reaching a peak of 4.13 in September, while non-discounted ones only reached 3.25.

We also compared ratings before and after July 1st. Restaurants without discounts saw a small improvement in ratings, from 3.15 to 3.39. But for those with discounts, ratings went up significantly from 3.10 to 3.84. This shows that discounts really do make customers happier and lead to better reviews.

Moreover, the number of reviews also went up. Before July, there were 828 reviews in total, with 193 for non-discounted and 635 for discounted restaurants. After July, the total reviews increased to 907, with 216 for non-discounted and 691 for discounted restaurants.

**Evaluating Relationships between Avg Rating and Restaurant’s Characteristics**

* *Relationship between Avg Rating and Restaurant’s Cuisine*:
  + For some cuisines, the average ratings increased when the discount was increased to more than 10% after July 1st. **We see a strong positive correlation. Eg: American, Italian.**
  + For some cuisines, the average ratings decreased when the discount was increased to more than 10% after July 1st. **We see a negative correlation. Eg: Vietnamese.**
  + For some cuisines, the average ratings didn’t show any clear change in trend when the discount was increased to more than 10% after July 1st. **We don’t see any significant correlation. Ex: Mexican** (though we must note that the average ratings for Mexican cuisine post July 1st increased)
* *Relationship between Avg Rating and Restaurant’s Location*
  + For **suburban and rural areas**, we see that the increase in discount % is **strongly correlated** with an increase in average ratings.
  + For **urban areas** though the average ratings post July 1st have increased, there is also a sharp decline in ratings from September to October. So, there is **no significant correlation** between increase in discounts and ratings or some other factors need to be considered for urban areas other than just the discount %.
* *Relationship between Avg Rating and Restaurant’s Price Range*
  + Average ratings for restaurants rated **$$$** have **decreased** post July 1st.
  + For restaurants rated **$ and $$,** the average ratings have **increased** after July 1st.
* *Relationship between Avg Rating and Restaurant’s Age*
  + There is **no impact** of increase in discount % for relatively younger **restaurants (age 0-3)**, but for restaurants older than that increase in discount % has led to an increase in average user ratings.

**Recommendation**

Our recommendation would be that restaurants evaluate if giving higher discounts is impacting their customer reviews or not. As we saw, it is not a one-size-fits-all solution. Based on the above data and dashboard the restaurant business manager should continue an increase in discount % for restaurants where average ratings have increased with an increase in discount %. The business should also not increase discounts at restaurants which saw a drop in ratings with an increase in discount %.