

# The Recipe for Success

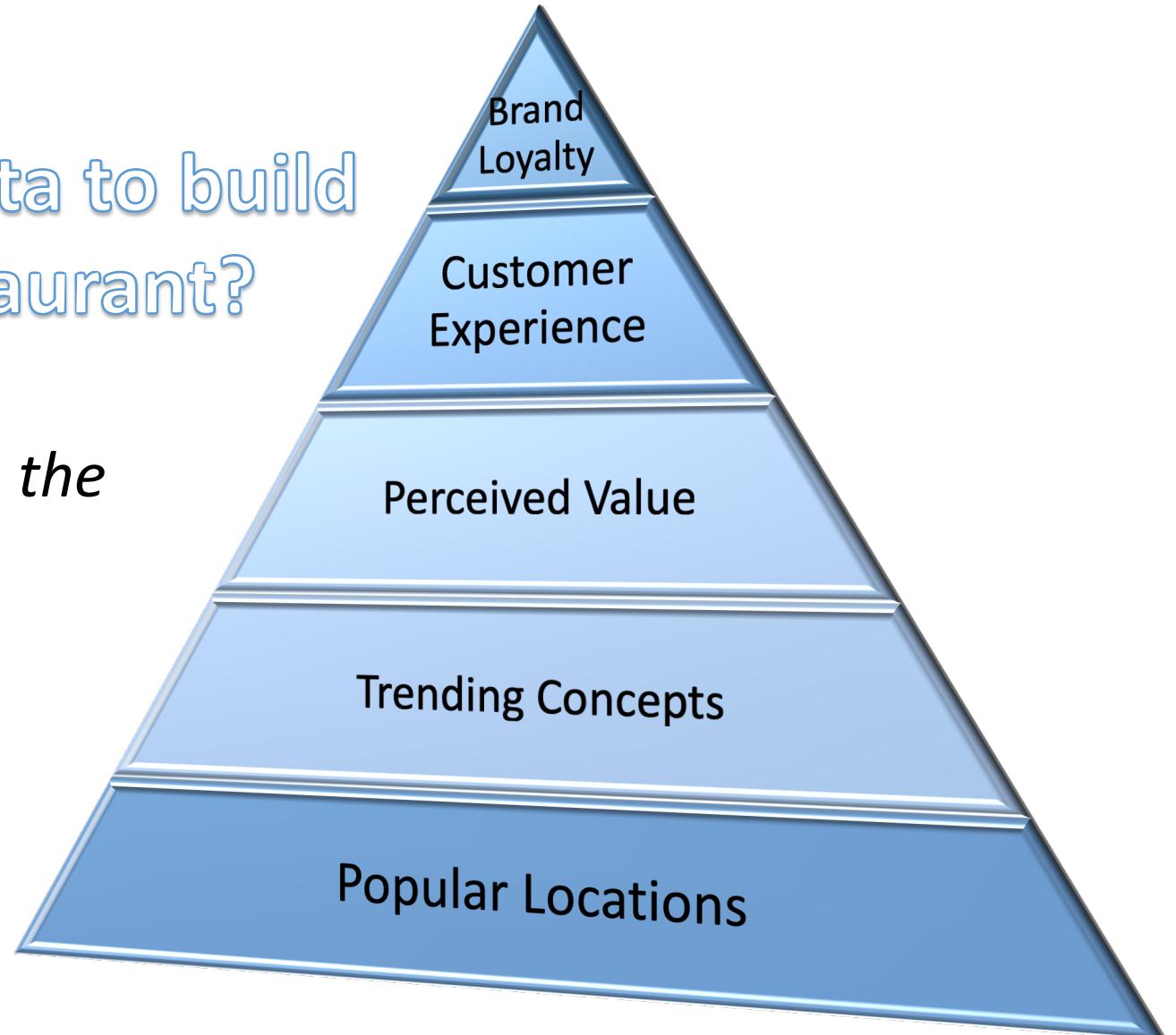


A DATA DRIVEN APPROACH TO ENTERING  
THE RESTAURANT BUSINESS IN NEW YORK CITY



## How can we use data to build an exceptional restaurant?

*In this model, we will focus on the foundations of an exceptional restaurant in NYC.*



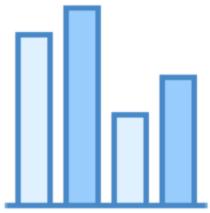


# The Metric of Success

According to Yelp, the average restaurant rating is 4.0.

This means in order to stand out in a competitive market, you need at least a 4.5 rating.





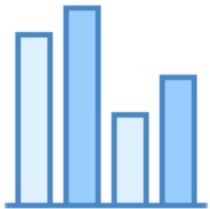
## The Data



Rating, prices, categories, and locations.



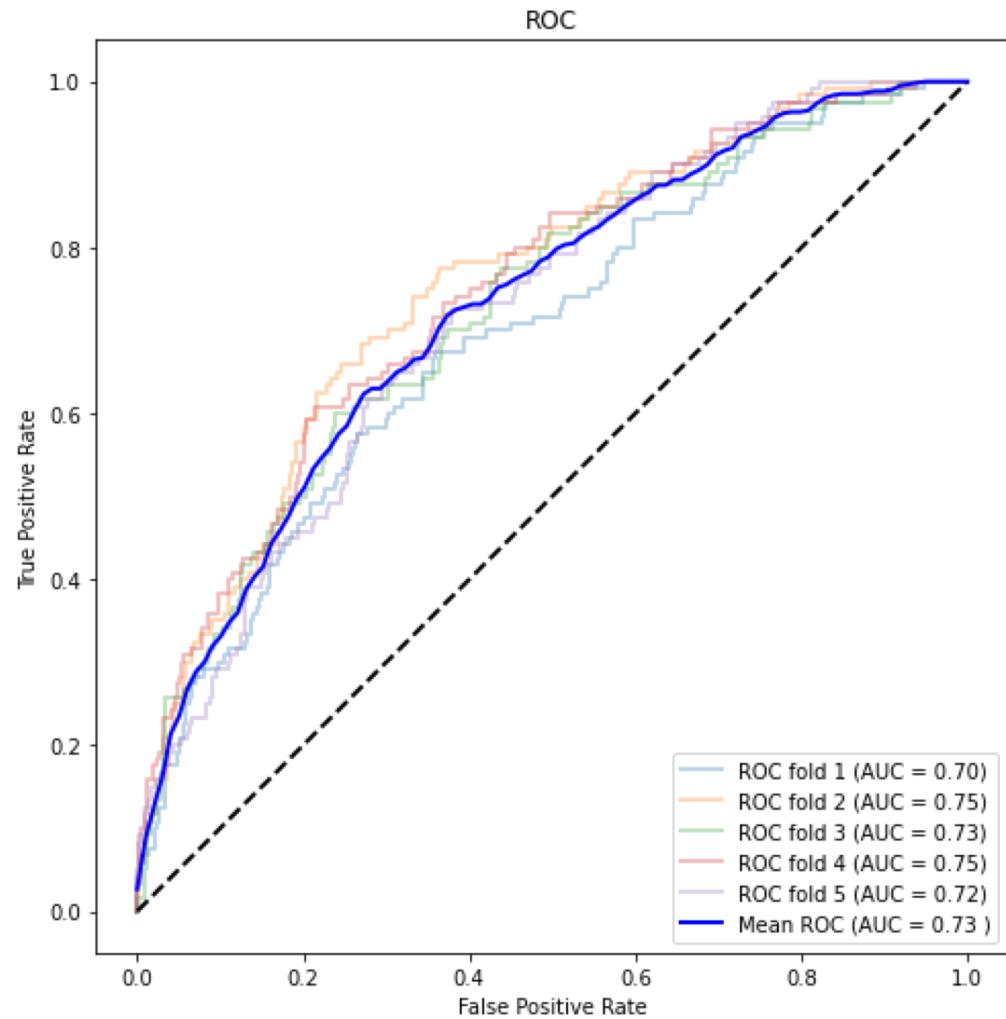
Location information and population demographics



# The Model

|      | Accuracy | AUC      | Precision | Recall   | F1       |
|------|----------|----------|-----------|----------|----------|
| 0    | 0.777120 | 0.695370 | 0.563636  | 0.258333 | 0.354286 |
| 1    | 0.778656 | 0.726619 | 0.568966  | 0.275000 | 0.370787 |
| 2    | 0.774704 | 0.721481 | 0.571429  | 0.200000 | 0.296296 |
| 3    | 0.783037 | 0.754823 | 0.625000  | 0.208333 | 0.312500 |
| 4    | 0.794466 | 0.747301 | 0.700000  | 0.233333 | 0.350000 |
| mean | 0.781597 | 0.729119 | 0.605806  | 0.235000 | 0.336774 |

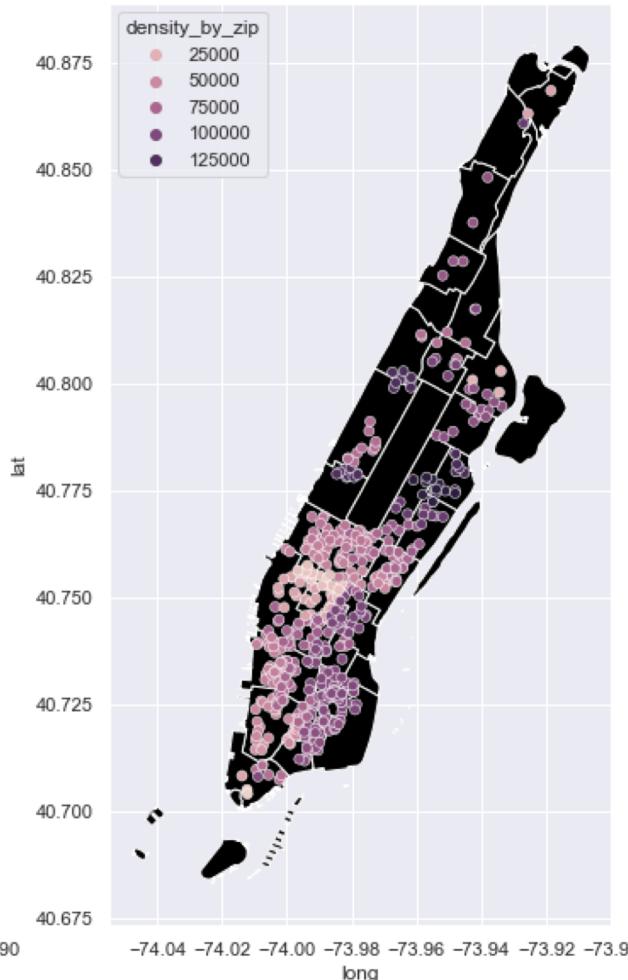
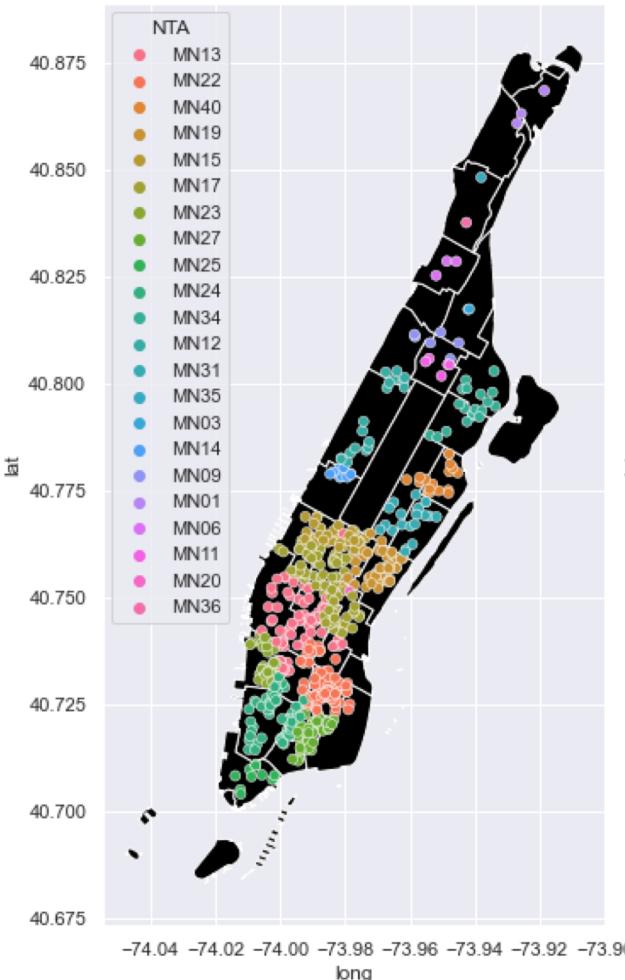
This model prioritizes avoiding false positives to avoid wasting resources.





# Popular Locations

Above Average Restaurants by Neighborhood and Population Density



- ❖ Turtle Bay/East Midtown (MN19)
- ❖ Midtown South (MN17)
- ❖ Murray Hill/Kips Bay (MN20)
- ❖ HudsonYards/Chelsea (MN13)
- ❖ Flatiron/Union Square (MN13)
- ❖ Gramercy (M21)



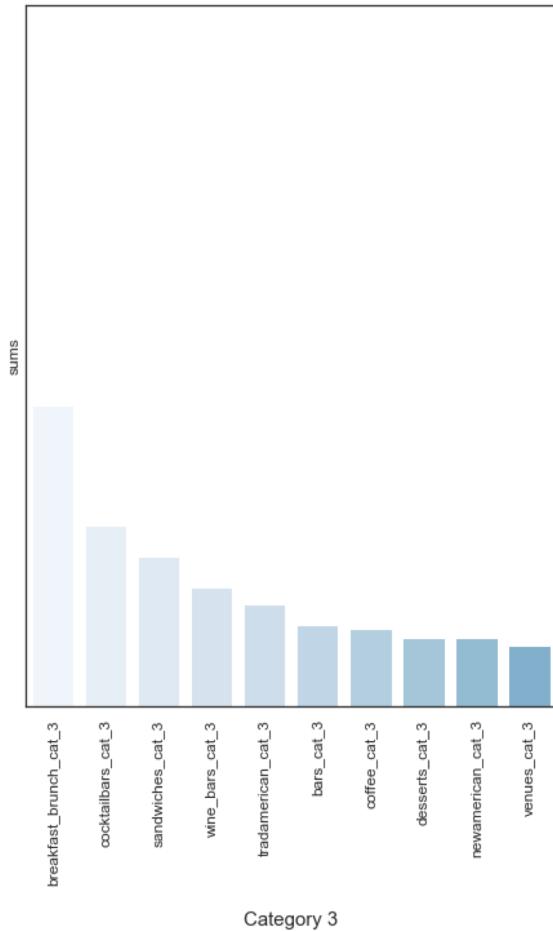
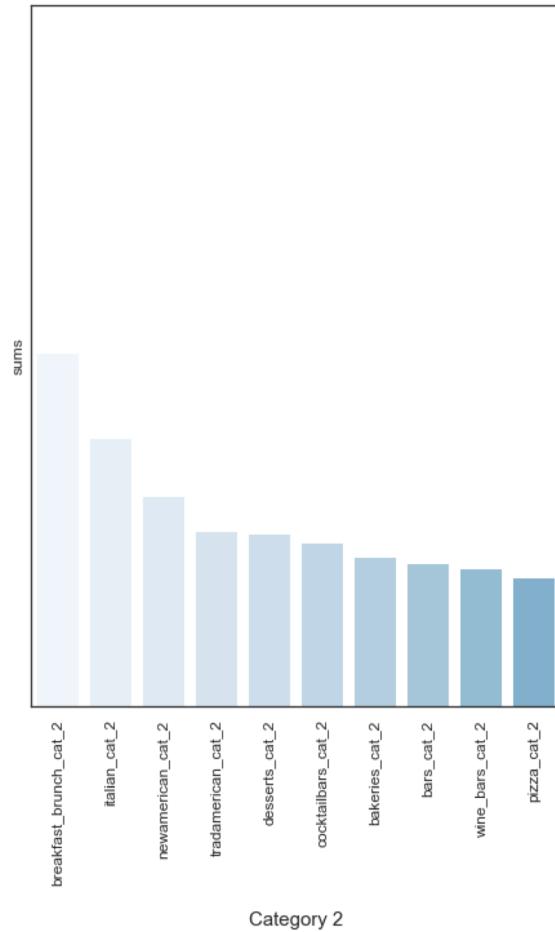
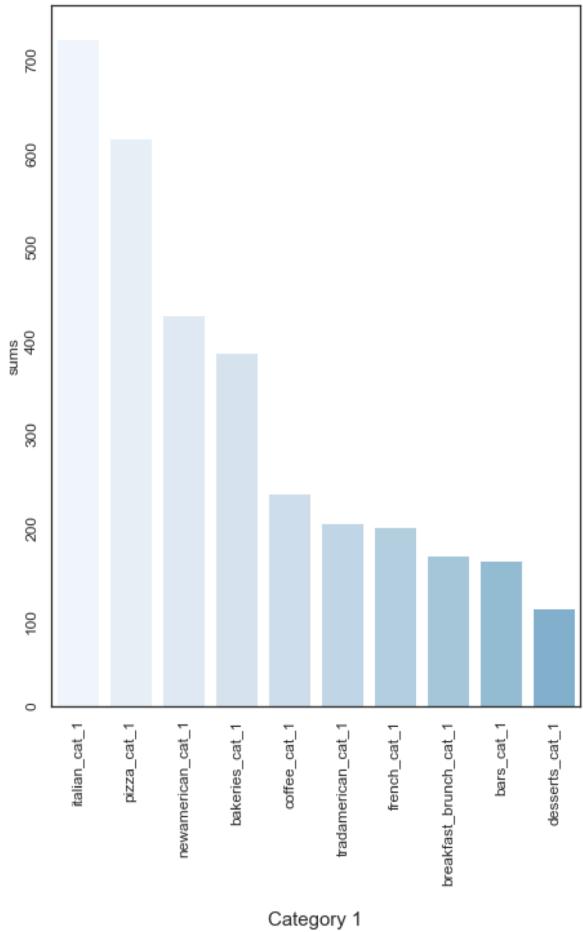
# Trending Concepts





# Top Concepts

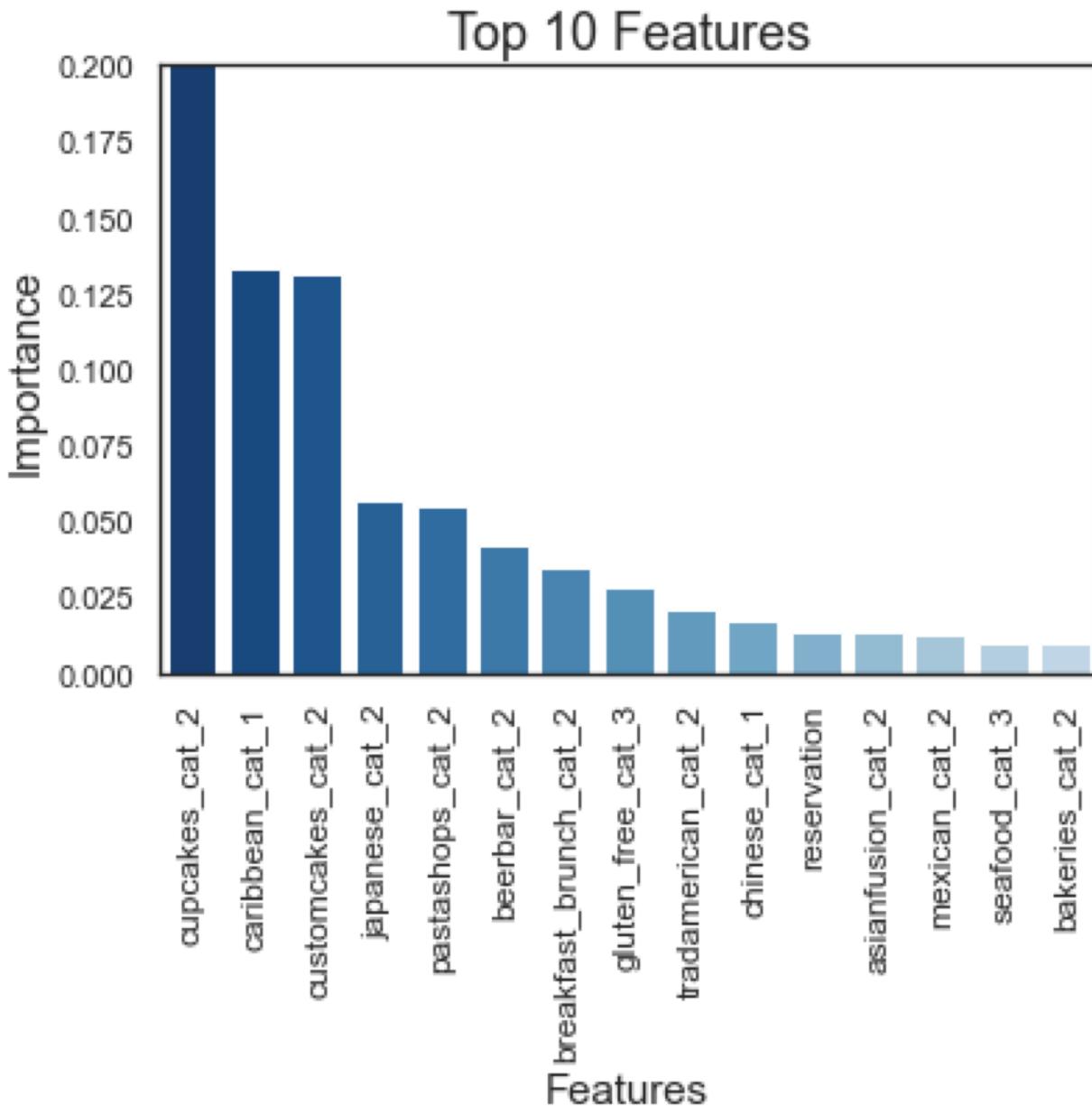
Restaurants by Category





## Top Concepts refining your concept

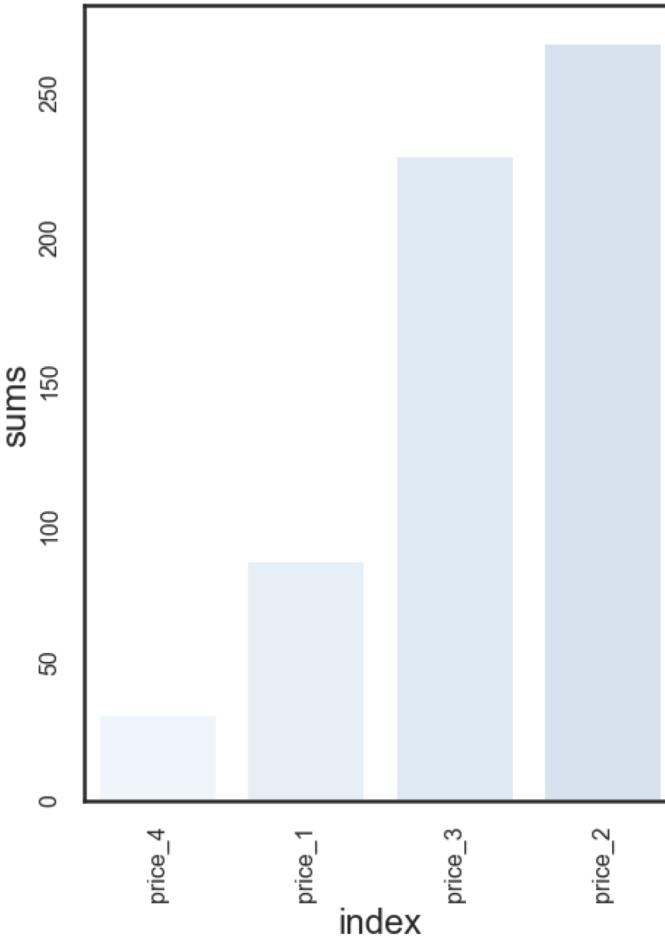
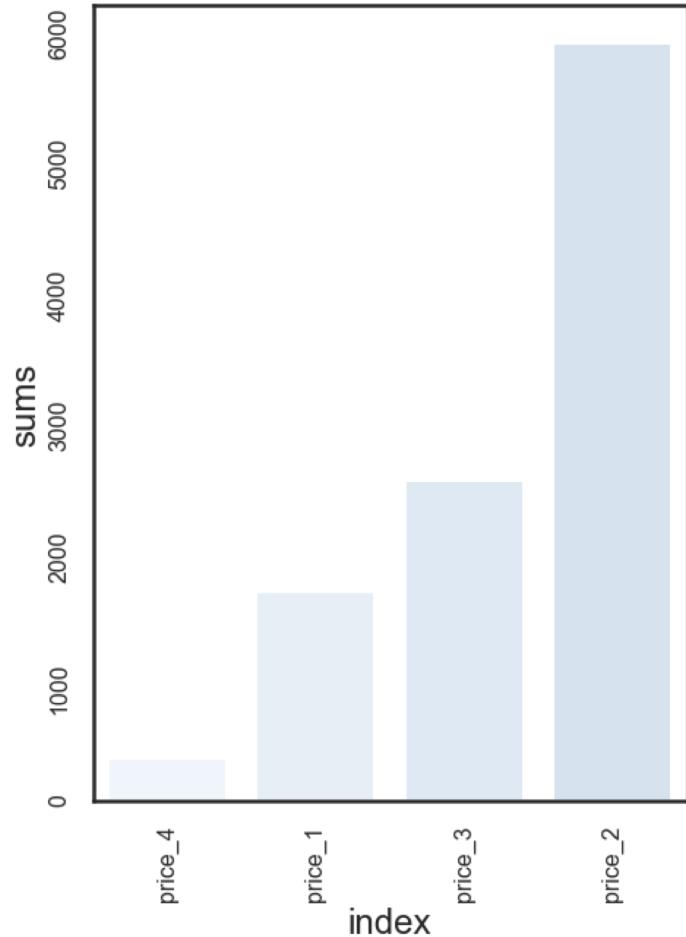
- ❖ gluten free bakeries
- ❖ gluten free American concepts
- ❖ sit down Asian and Italian concepts





# Perceived Value

Restaurant Price Frequencies





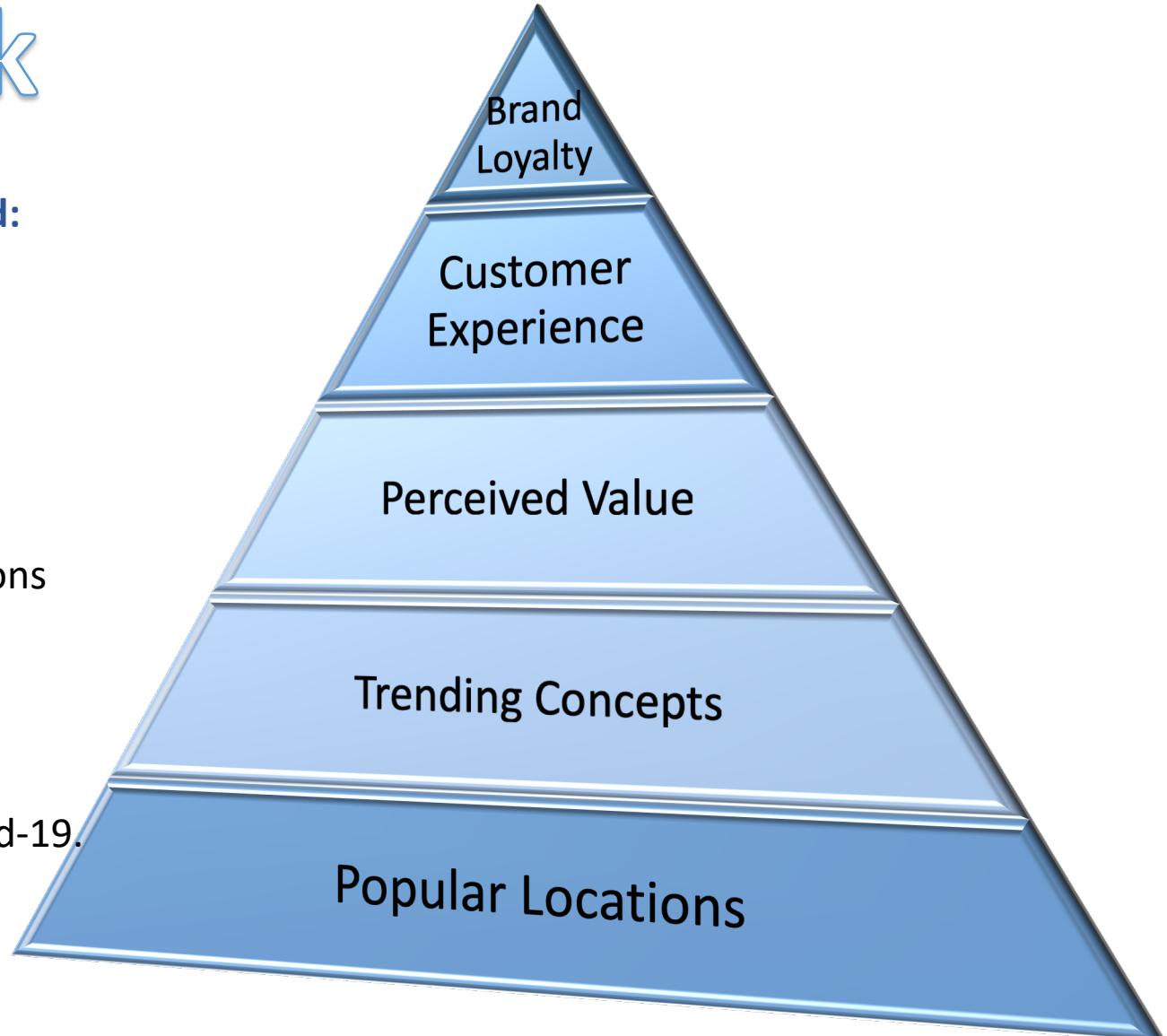
# Future Work

## **Addressing the top two levels of the pyramid:**

1. Performing sentiment analysis to assess customer values as well as positive and negative experiences.
2. Obtaining additional data to find broader trends to make more precise recommendations.
3. Obtaining additional data to explore options that encourage brand loyalty.

## **Assessing the impact of Covid-19:**

1. Collecting data regarding patterns in consumer habits during the times of Covid-19.
2. Using time-series to predict how these patterns will evolve going forward.





Thank You!