

## Initial Analytics Plan

### Areas of Focus

- **Food Quality**
  - ◆ Evaluate key aspects of food quality, including taste and portion size.
- **Service**
  - ◆ Assess customer satisfaction with service quality, focusing on speed, friendliness, and professionalism.
- **Value for Money**
  - ◆ Examine the perceived value of offerings, including the food quality and Sunday brunch buffet.

### Basic Charts and Plots

- **Bar Chart of Ratings and Their Count**
  - ◆ Generate a bar chart to display the distribution of ratings and their frequencies.
- **Line Chart of Mean Rating Progression**
  - ◆ Create a line chart tracking the mean ratings of Service, Food, Ambience, and Overall satisfaction throughout the year.
- **Scatterplot: Sentiment vs. Star Ratings**
  - ◆ Plot sentiment scores against star ratings to observe any patterns or correlations.

### Keyword Analysis for Trends

- **Extract and Cluster Frequently Mentioned Keywords**
  - ◆ Use topic modeling tools like LDA or word clouds to identify common positive and negative keywords.
  - ◆ Highlight keywords associated with negative sentiments (e.g., "wait," "cold food") and positive sentiments (e.g., "friendly," "delicious").
- **Insight for Stakeholders**
  - ◆ Provide actionable insights by addressing recurring negative terms while emphasizing positives in marketing materials.

### Impact of Specific Changes or Events

- **Assess Sentiment Before and After Significant Business Events**
  - ◆ Compare sentiment scores before and after key business changes (e.g., new menu items, operational updates) to gauge customer response.
- **Insight for Stakeholders**
  - ◆ Evaluate whether changes lead to improvements in customer satisfaction or if further adjustments are needed.

## Random Hypotheses

### → Service Quality

- ◆ There is a positive correlation between higher overall review scores and mentions of service quality.
- ◆ Peak dining hours generate more negative reviews regarding service speed compared to off-peak hours.

### → Value for Money

- ◆ The buffet is perceived as overpriced.

### → Impact of Promotions and Events

- ◆ Sentiments significantly improve during promotional periods or after introducing new menu items.
- ◆ Positive sentiments are higher during holiday seasons due to special menus or promotions.

### → Ambiance Preferences

- ◆ The restaurant's patio is consistently associated with higher sentiment scores.

### → Special Occasions

- ◆ Reviews with high sentiment scores frequently mention special occasions (e.g., anniversaries, birthdays), indicating the restaurant is a preferred venue for celebratory events.

### → Menu Quality

- ◆ Positive reviews often highlight specific menu items, suggesting these items are key drivers of customer satisfaction.