

FoodHub

Exploratory Data Analysis

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Executive Summary

- American cuisine is the most frequently ordered cuisine type.
- Japanese cuisine is the second most ordered cuisine.
- Vietnamese cuisine is the least ordered among all cuisine types.
- 71.2 percent of orders are placed on weekend days
- 38.8 percent of orders are not rated

It takes significantly more time to deliver an order on weekdays than weekend days.

- Cost of the order, delivery time and food preparation time do not have any significant effect on the rating clients provide for their orders.
- Customers who give higher ratings tend to spend more money on their orders. This suggests that customers are willing to pay more for a better dining experience.

Business Problem Overview and Solution Approach

Solution approach in 5 points:

- Clean and prepare the data.
- Perform exploratory data analysis.
- Conduct statistical analysis.
- Visualize the findings.
- Communicate the findings to the company in a clear and concise way.

Business Problem Overview and Solution Approach

- The food aggregator company wants to analyze the data of the different orders made by the registered customers in their online portal to get a fair idea about the demand of different restaurants.
- This information will help them in enhancing their customer experience.

Data Overview

- **Statistical Summary:**

- All columns have 1898 non-null values.
- customer_id has 1711 unique values, the most frequent value is 171168.
- restaurant_name has 178 unique values, the most frequent value is "Shake Shack".
- cuisine_type has 14 unique values, the most frequent value is "American".
- cost_of_the_order has a mean of \$16.49, a standard deviation of \$4.84, a minimum cost of \$12.00, a 25th percentile of \$14.14, a 50th percentile of \$16.49, a 75th percentile of \$22.29, and a maximum cost of \$35.41.

Data Overview

- **Not Rated Orders**

There are 4 unique rating values: Not given, 5, 4, and 3.

The most common rating value is Not given, with 736 orders.

There are 736 orders that are not rated.

Data Overview

- **Rows & Columns:**
 - There are 1898 rows and there are 9 columns
- **Data types:**
 - There are no Null values,
 - Int, float and object are data types
 - Object will be converted to category
- **Missing Values:**
 - After getting the value count, there are no missing values

Univariate Analysis Summary

- The most common order cost is between USD 20 and USD 25.
- The most common day of the week for orders is Friday.
- The most common rating is 5.
- The distribution of food delivery time varies depending on the rating of the order. Orders with higher ratings are more likely to have shorter food delivery times.
- Top 5 restaurants includes Shake Shack, The Meatball Shop, Blue Ribbon Sushi, Blue Ribbon Fried Chicken, Parm
- The most popular cuisine on weekends is: American
- The percentage of orders costing more than \$20 is: 29.24

Univariate Analysis Summary

- Mean Order Delivery Time: 24.16 minute
- Top customer ID are 52832, 47440, 83287

Multivariate Analysis Summary

- The Meatball Shop, Blue Ribbon Fried Chicken, Shake Shack, Blue Ribbon Sushi have average rating more than 4
- The net revenue generated on all the orders given in the dataset is around 6166.3 dollars.
- 10% of the orders in the dataset took more than 60 minutes to get delivered.
- The mean delivery time during weekends is 22.47 minutes and the mean delivery time during weekdays is 28.34
- *The mean delivery is 5.87 minutes slower on weekdays



Happy Learning !

