

Analyzing Restaurant Data Across Indian Cities (Swiggy analysis)

Introduction

The goal of this project is to perform a comprehensive analysis of restaurant data across various cities in India. The dataset includes information about restaurant names, locations, ratings, costs per person, cuisines, menu items, and prices. By exploring these attributes, we aim to uncover trends and insights that can help identify patterns in restaurant pricing, customer ratings, and the relationship between cost and quality of service.

Data Overview

The dataset contains the following columns:

- Restaurant Number: A unique identifier for each restaurant.
- Restaurant Name: The name of the restaurant.
- City: The city where the restaurant is located.
- Address: The address of the restaurant.
- Rating: The average customer rating of the restaurant.
- Cost Per Person: The average cost per person for dining at the restaurant.
- Cuisine: The type of cuisine offered by the restaurant.
- Restaurant Link: A URL to the restaurant's website.
- Menu Category: The category of the item (e.g., Main Course, Dessert, Appetizer).
- Item: The specific dish or item offered.
- Price: The price of the item.
- Veg or Non-Veg: Indicates whether the dish is vegetarian or non-vegetarian.
- Value Score: A calculated metric to assess the balance between cost and rating.

Analysis Performed

1. Total Sum, Count, and Max Rating by City (Bangalore):

- Analyzed the sum of cost per person, the count of ratings, and the maximum rating for restaurants in Bangalore.

- Result: The highest rating was 4.7, with a total sum of cost per person reaching 1200 across 4 restaurants.

| Column Labels | | | | | | | |
|---------------|------------------------|-----------------|---------------|------------------------------|-----------------------|---------------------|--|
| Row Labels | Bangalore | Count of rating | Max of rating | Total Sum of cost_per_person | Total Count of rating | Total Max of rating | |
| | Sum of cost_per_person | | | | | | |
| 150 | 250 | 1 | 4.7 | 250 | 1 | 4.7 | |
| 180 | 950 | 3 | 4.7 | 950 | 3 | 4.7 | |
| 190 | 1200 | 4 | 4.6 | 1200 | 4 | 4.6 | |
| 200 | 1240 | 4 | 4.7 | 1240 | 4 | 4.7 | |
| 210 | 1290 | 4 | 4.7 | 1290 | 4 | 4.7 | |
| 220 | 310 | 1 | 4.5 | 310 | 1 | 4.5 | |
| 250 | 500 | 1 | 4.5 | 500 | 1 | 4.5 | |
| 280 | 350 | 1 | 4.4 | 350 | 1 | 4.4 | |
| 290 | 500 | 1 | 4.6 | 500 | 1 | 4.6 | |
| 320 | 600 | 1 | 4.3 | 600 | 1 | 4.3 | |
| 330 | 480 | 1 | 4.4 | 480 | 1 | 4.4 | |
| 340 | 3580 | 7 | 4.6 | 3580 | 7 | 4.6 | |
| 370 | 1410 | 2 | 4.6 | 1410 | 2 | 4.6 | |
| 380 | 1350 | 2 | 4.5 | 1350 | 2 | 4.5 | |
| 400 | 700 | 1 | 4.7 | 700 | 1 | 4.7 | |
| 420 | 2800 | 4 | 4.7 | 2800 | 4 | 4.7 | |
| 430 | 2840 | 4 | 4.7 | 2840 | 4 | 4.7 | |
| Grand Total | 20350 | 42 | 4.7 | 20350 | 42 | 4.7 | |

2. Maximum Rating by Restaurant in Bangalore:

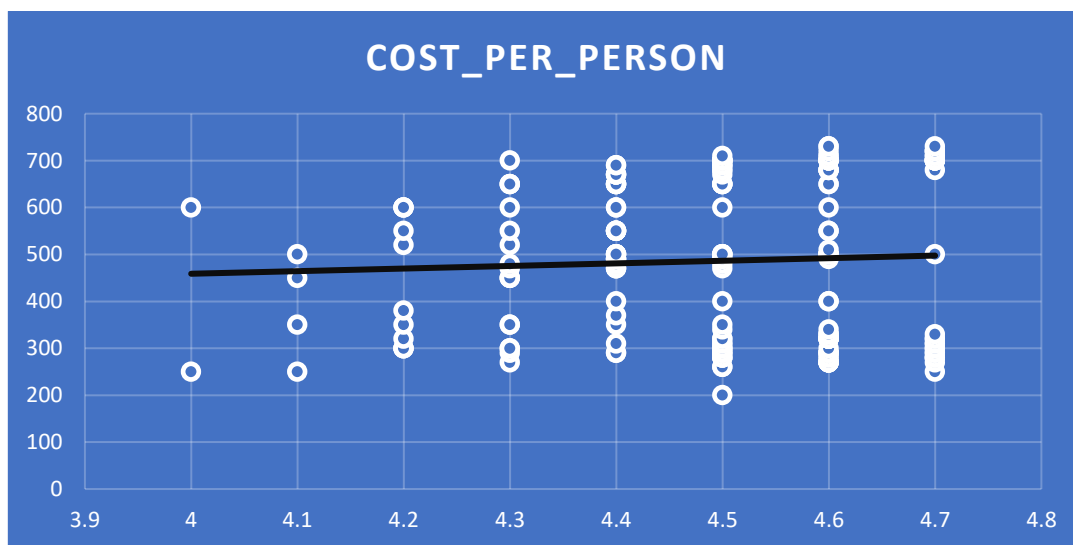
- Identified the maximum ratings of BBQ-themed restaurants in Bangalore.
- Result: Ratings ranged from 4.3 to 4.6 across various BBQ restaurants.

| Row Labels | | Max of rating | Chennai | | Mumbai | |
|-----------------|--|---------------|-----------------|-----|------------------|-----|
| Bangalore | | | | | | |
| BBQ Bistro | | 4.6 | BBQ Bistro | 4.6 | BBQ Bistro | 4.5 |
| BBQ Express | | 4.3 | BBQ Corner | 4.6 | BBQ Haven | 4.4 |
| BBQ Haven | | 4.5 | BBQ Haven | 4.6 | BBQ House | 4.5 |
| BBQ Paradise | | 4.5 | BBQ Palace | 4.4 | BBQ Junction | 4.5 |
| Burger Bar | | 4.6 | Burger Bistro | 4.4 | BBQ Palace | 4.4 |
| Burger Bliss | | 4.4 | Burger Haven | 4.4 | BBQ World | 4.6 |
| Cafe Delights | | 4.3 | Cafe Craze | 4.6 | Dessert Delight | 4.4 |
| Curry Express | | 4.4 | Dessert Delight | 4.5 | Dessert Haven | 4.5 |
| Dessert Delight | | 4.6 | Dessert Den | 4.6 | Dessert Junction | 4.5 |
| Dessert Haven | | 4.6 | Dessert Haven | 4.5 | Green Leaf | 4.2 |
| Green Cafe | | 4.2 | Dessert Oasis | 4.5 | Grill and Chill | 4.2 |
| Grill Junction | | 4.3 | Grill House | 4.3 | Grill Bistro | 4.4 |
| Pasta Bistro | | 4.6 | Grill Paradise | 4.3 | Grill House | 4.2 |
| Pasta Haven | | 4.5 | Grill Station | 4.4 | Pasta Bistro | 4.4 |

3. Cuisine Analysis (BBQ):

- Counted the number of BBQ cuisine restaurants and calculated their average rating and price.
- Result: BBQ Bistro had the most entries, with an average rating of 4.525 and an average price of 373.75.

| Row Labels | Count of cuisine | Average of rating | Average of price |
|---------------|------------------|-------------------|------------------|
| BBQ Bistro | 8 | 4.525 | 373.75 |
| BBQ Corner | 2 | 4.55 | 370 |
| BBQ Delight | 1 | 4.5 | 350 |
| BBQ Express | 1 | 4.3 | 320 |
| BBQ Haven | 3 | 4.5 | 363.3333333 |
| BBQ House | 2 | 4.45 | 375 |
| BBQ Junction | 3 | 4.533333333 | 373.3333333 |
| BBQ Palace | 4 | 4.375 | 375 |
| BBQ Paradise | 2 | 4.5 | 375 |
| BBQ World | 3 | 4.466666667 | 373.3333333 |
| Bistro Bliss | 1 | 4.3 | 220 |
| Burger Bar | 1 | 4.6 | 340 |
| Burger Bistro | 1 | 4.4 | 340 |
| Burger Bliss | 1 | 4.4 | 340 |
| Burger Box | 2 | 4.5 | 335 |
| Burger Haven | 2 | 4.5 | 345 |
| Burger Town | 1 | 4.1 | 300 |
| Cafe Craze | 1 | 4.6 | 200 |

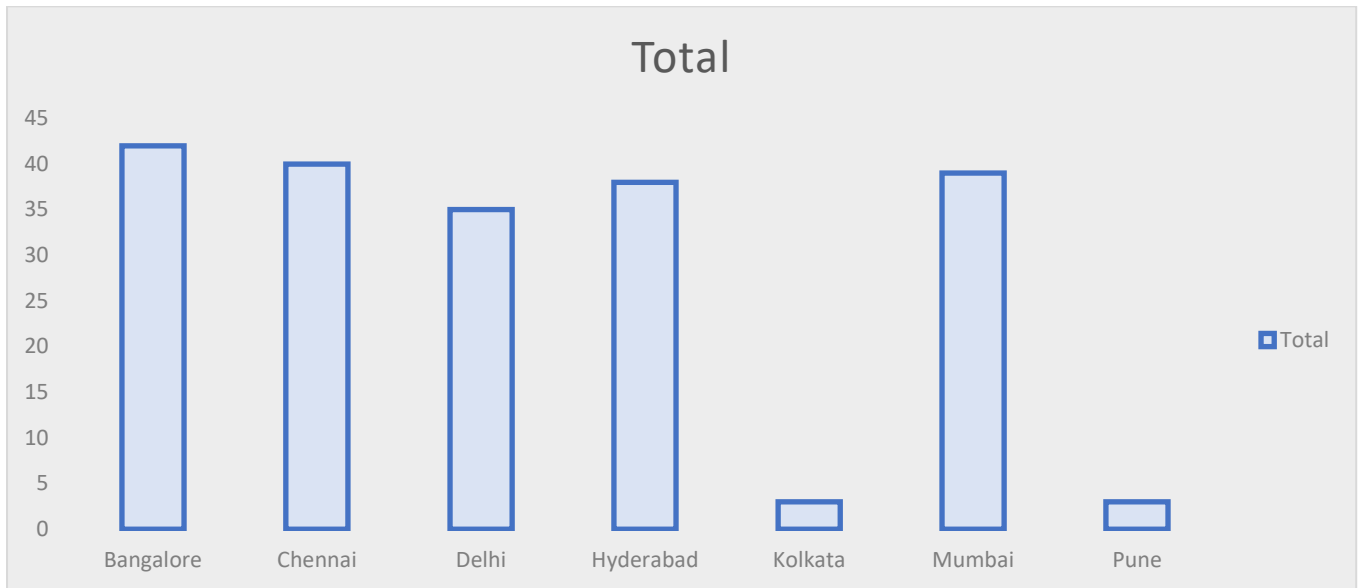


4. Restaurant Count by City:

- Counted the number of restaurants in each city.
- Result: Bangalore had the highest number of restaurants (42), followed by Chennai (40).

| Row Labels | Count of restaurant_name |
|------------|--------------------------|
| Bangalore | 42 |
| Chennai | 40 |
| Delhi | 35 |
| Hyderabad | 38 |

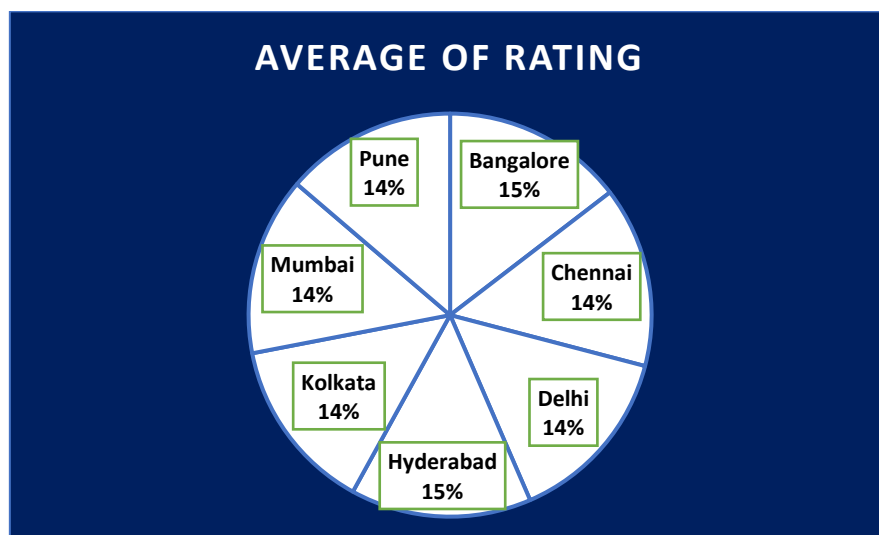
| | |
|--------------------|------------|
| Kolkata | 3 |
| Mumbai | 39 |
| Pune | 3 |
| Grand Total | 200 |



5. Average Rating by City:

- Calculated the average rating for restaurants across different cities.
- Result: Bangalore had the highest average rating (4.53), while Pune had the lowest (4.27).

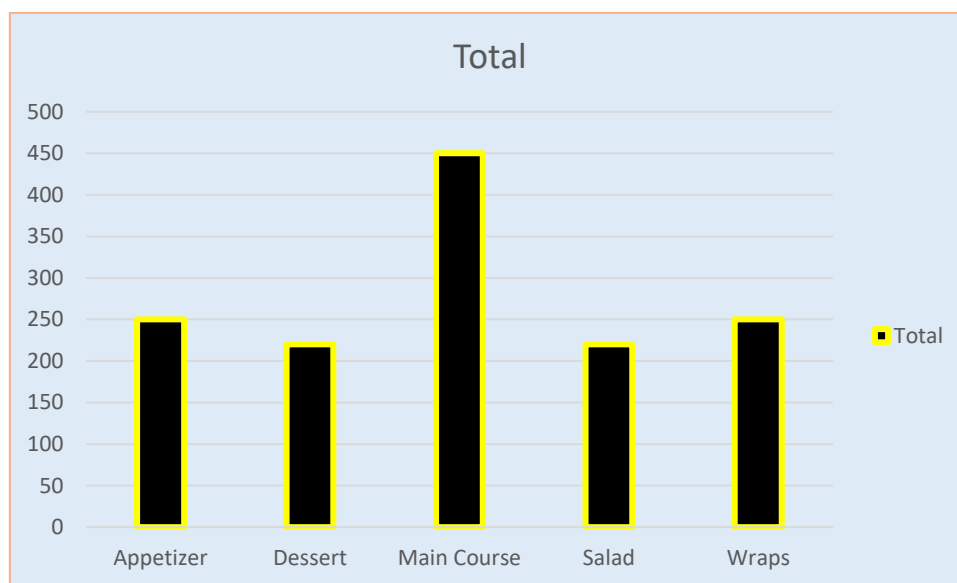
| Row Labels | Average of rating | Count of restaurant_name |
|------------|-------------------|--------------------------|
| Bangalore | 4.528571429 | 42 |
| Chennai | 4.5 | 40 |
| Delhi | 4.482857143 | 35 |
| Hyderabad | 4.507894737 | 38 |
| Kolkata | 4.333333333 | 3 |
| Mumbai | 4.441025641 | 39 |
| Pune | 4.266666667 | 3 |



6. Maximum Price by Menu Category:

- Determined the highest price for items within different menu categories.
- Result: Main Course items had the highest maximum price at 450.

| price | All |
|--------------------|--------------|
| Row Labels | Max of price |
| Appetizer | 250 |
| Dessert | 220 |
| Main Course | 450 |
| Salad | 220 |
| Wraps | 250 |
| Grand Total | 450 |



7. Average and Sum of Price by Veg/Non-Veg and Menu Category:

- Analyzed the average and total sum of prices for vegetarian and non-vegetarian dishes across menu categories.
- Result: Non-veg main Course items had the highest total sum (31,690), while Veg Desserts had an average price of 189.21.

| Row Labels | Average of price | Sum of price |
|----------------|------------------|--------------|
| Non-Veg | | |
| Appetizer | 120 | 120 |
| Main Course | 377.2619048 | 31690 |
| Wraps | 235 | 470 |
| Veg | | |
| Appetizer | 176.6666667 | 530 |
| Dessert | 189.2105263 | 7190 |
| Main Course | 329.4871795 | 12850 |

| | | |
|--------------------|--------------|--------------|
| Salad | 200.9375 | 6430 |
| Wraps | 220 | 220 |
| Grand Total | 297.5 | 59500 |

Conclusion

This analysis has provided valuable insights into the restaurant industry across various Indian cities. We observed that Bangalore has the highest number of restaurants and maintains a high average rating. BBQ-themed restaurants in Bangalore have solid ratings, with average costs reflecting a balance between quality and price.

The Calculated Value Score has helped to identify restaurants that offer a good balance between cost and customer satisfaction. For example, Sweet Retreat in Mumbai and Sweet Sensation in Bangalore stood out as high-value options, offering excellent ratings at relatively low costs per person.

Overall, this project has highlighted how data can be utilized to better understand market trends and customer preferences in the restaurant industry, helping businesses and consumers make informed decisions.

Thank You