

Research Plan – Restaurant Analysis

Research Questions to Answer with the Dashboard:

1. What restaurants are the most popular?
2. What restaurants generate the highest revenue?
3. Why? What factors influence? Geography?
4. Is there a relationship between average rating and the number of ratings?
5. What type of cuisine generates the most sales or ratings?

Hypotheses

- Restaurants with more ratings tend to have higher popularity and revenue.
- Cities with a larger population show higher restaurant popularity and income.
- Restaurants offering certain types of cuisine (e.g., fast food or indian) generate more sales.
- Higher-rated restaurants generate more revenue.

Metrics and KPIs

- Rating count and rating by restaurant_id
- Total Revenue per Restaurant
- Revenue by Cities
- Average Rating vs Rating Count by Restaurant
- Revenue by Cuisine

Visualizations

- Bar Chart Q1,Q2
- Scatter Plot Q4
- Heatmap Q5
- Map Q3

Prior to assembling the dashboard

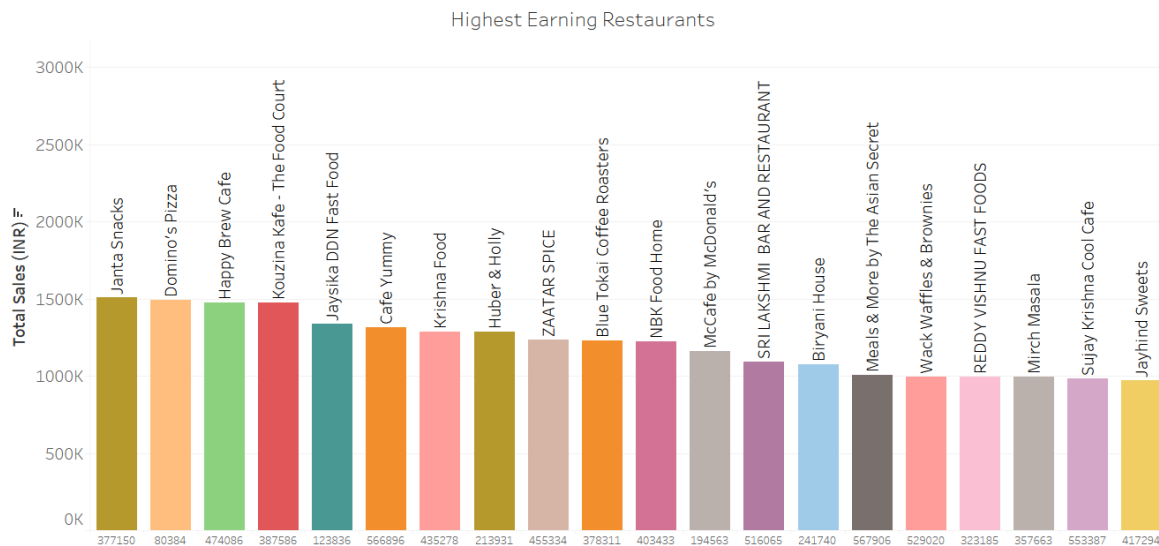
It is necessary to select the appropriate tables to answer the research questions: Orders, Restaurants, and Menu. These tables must be joined correctly (using inner, left, or right joins as needed). The required data should be cleaned and standardized, including converting all prices to a single currency.

ZOMATO: Restaurant Analysis

This analysis focuses on identifying which restaurants are the most popular and which generate the highest revenue. We will use key metrics such as rating, number of reviews, cuisine type, location, and average cost to understand the factors that drive restaurant success.

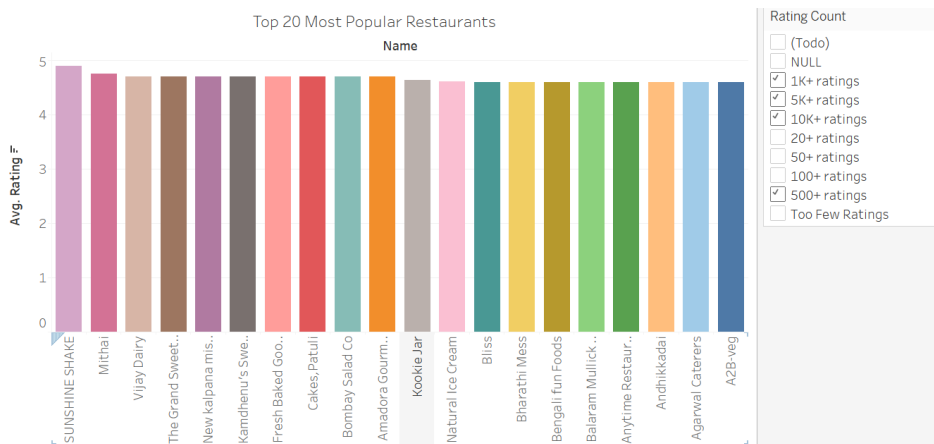
GRAPH 1

This chart displays the names, IDs, and cities of the restaurants that have generated the highest revenue for Zomato. Janta Snack (Ahmedabah), Domino's Pizza (Tirupati), and Happy Brew Café (Tirupati) are the top performers leading in total sales.



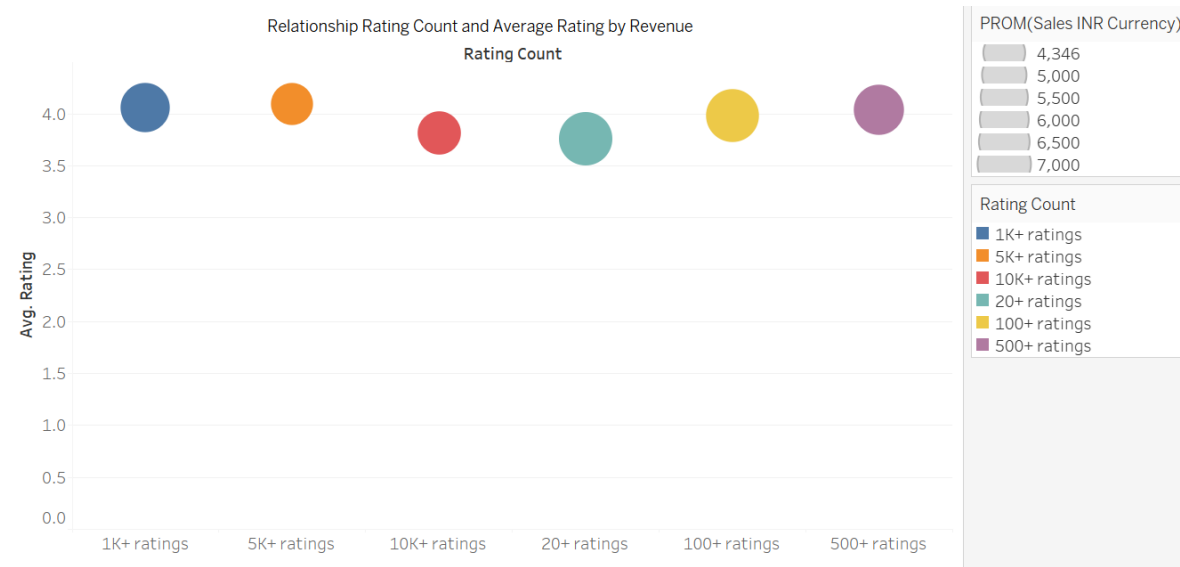
Graph 2

The following chart shows the most popular restaurants within the Zomato platform. The restaurants are grouped by brand name, regardless of whether they have multiple locations in different cities. A filter was applied to include only those with a rating count higher than 500+ (i.e., 500+, 1k+, 5k+, and 10k+ ratings). This filter can be adjusted to include more or fewer restaurants as needed. The most popular restaurant is Sunshine Shake with an average rating of 4.9.



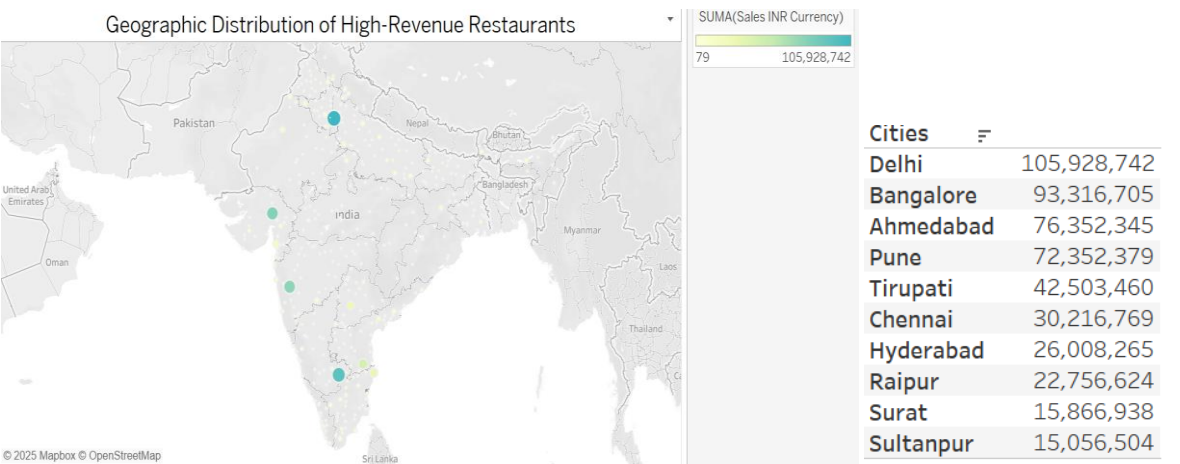
Graph 3

The chart below shows the relationship between the average rating and the rating count; remember that the rating count is in categorical form. We can observe that the categories with 20+ and 50+ rating counts have higher average revenues than the categories with 5k+ and 10k+ rating counts. This means that restaurants with a moderate number of ratings (e.g., 20+ to 50+) tend to generate higher average revenue than those with very high rating counts (5k+ or 10k+). More ratings don't always equal higher revenue. This could be due to factors like quality, exclusivity, or pricing strategy of restaurants with fewer reviews but higher sales.



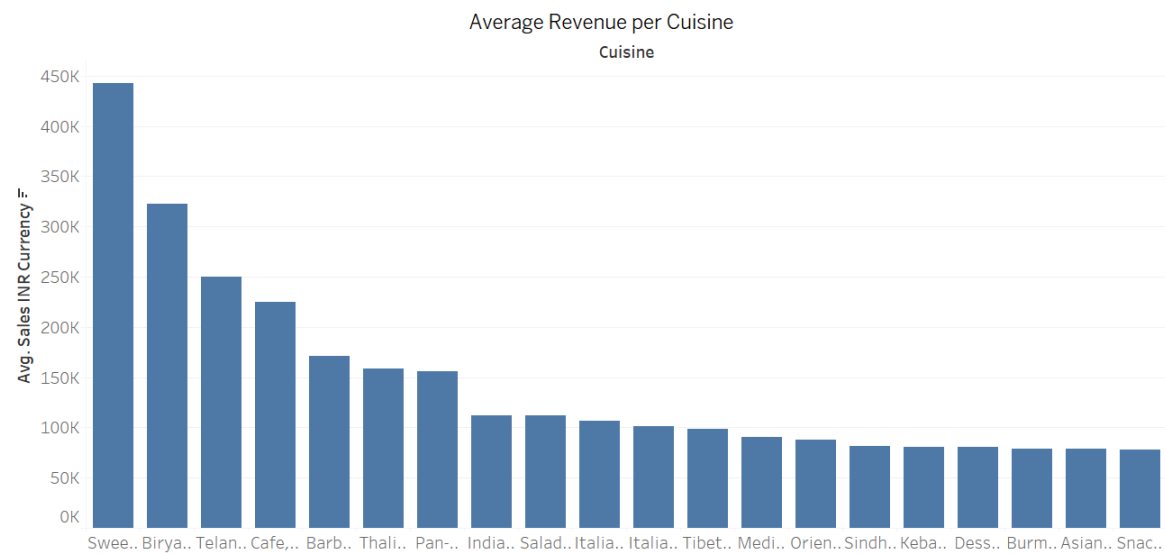
Graph 4

In the map below, we can see the cities with the highest revenue, including Delhi, Ahmedabad, Pune, and Bangalore. These cities are known for having some of the largest populations in India. A list of the most populated cities in India includes Mumbai, Delhi, Chennai, Bangalore, Hyderabad, Ahmedabad, Pune, and Surat



Graph 5

In the last chart, we see the average sales by cuisine type. It shows that Sweet & Tandoor, Bakery & Biryani, and Telangana & Andhra are the most profitable among all restaurants. Note that we used average sales—not total sales—to allow for a more accurate comparison.



Key Conclusions

Top Revenue-Generating Restaurants:

Janta Snack, Dominos Pizza, and Happy Brew Cafe lead in total sales, mostly located in major cities like Delhi and Bangalore.

Most Popular by Rating:

Sunshine Shake has the highest average rating (4.9). However, a high rating does not always correlate with high revenue.

Rating vs Revenue Relationship:

Restaurants with fewer reviews (e.g., 20+ or 50+) sometimes have higher average revenue than those with 5k+ or 10k+, possibly due to exclusivity or pricing strategies.

Most Profitable Cuisines:

Sweet & Tandoor, Bakery & Biryani, and Telangana & Andhra cuisines show the highest average revenue per restaurant.

Top Revenue Cities:

Delhi, Ahmedabad, Pune, and Bangalore generate the most revenue, which aligns with being among the most populated cities in India.

Key Recommendations

Expand in high-performing cities with dense populations.

Invest in high-revenue cuisines that show strong average performance.

Explore restaurants with fewer reviews but high sales—they may represent hidden opportunities.

Leverage these insights for targeted marketing by city and cuisine type.