

Zomato Sales Analysis Report

Introduction

Online food delivery platforms like Zomato operate at the intersection of consumer behaviour, restaurant performance, and regional demand dynamics. With millions of orders placed across diverse cities, cuisines, and customer segments, extracting actionable insights from transactional data is critical for improving customer experience, optimizing restaurant partnerships, and driving sustainable revenue growth.

This report analyses Zomato's order, restaurant, menu, and user data to uncover patterns in sales performance, cuisine popularity, customer spending behaviour, and geographic distribution. By examining how orders vary across cities, demographics, income groups, and time periods, the analysis aims to answer key business questions that directly support strategic decision-making for marketing, pricing, and operational efficiency.

The findings in this report can help Zomato:

- Identify high-performing restaurants and cuisines
- Understand customer segmentation and spending behaviour
- Optimize city-level expansion and restaurant onboarding
- Improve menu diversity and pricing strategies
- Align promotional campaigns with peak demand patterns

Business Problems

This analysis focuses on the following business-driven questions:

- Which **restaurants generate the highest total sales**, and how concentrated is revenue among top performers?
- What are the **average ratings and rating volumes** in the top-performing cities?
- How does **order volume trend over time**, and are there clear monthly or seasonal patterns?
- Which **cuisines dominate customer demand**, and how does popularity compare with pricing?
- What is the **distribution of vegetarian vs non-vegetarian orders**, and what does it indicate about customer preferences?
- Which **cities host the highest number of restaurants**, and how does supply align with demand?
- How do **user demographics** (age, gender, income, occupation) correlate with **average order value**?
- Who are the **highest-spending customers**, and what role do they play in overall revenue?
- Which cuisines have the **highest average menu prices**, and are they premium or niche categories?
- Which restaurants offer the **most diverse menus**, measured by unique cuisines and food items?
- What are the **most frequently ordered food items** across the platform?
- How does **spending behaviour differ between genders**?

- How does **order frequency vary across income groups**, and which segments are most valuable?

Description of the Data

The dataset represents a simplified but realistic food delivery ecosystem, composed of the following key entities:

Orders Data

- Order ID
- Order date
- Quantity sold
- Currency
- User ID
- Restaurant ID

Restaurants Data

- Restaurant name
- City
- Rating
- Rating count
- Average cost
- Cuisine type

Menu Data

- Menu item ID
- Restaurant ID
- Food item ID
- Cuisine
- Price

Food Items Data

- Food item name
- Vegetarian / Non vegetarian classification

User Data

- Age
- Gender
- Marital status

- Occupation
- Monthly income
- Education level
- Family size

Together, these datasets enable a **multi-dimensional analysis** combining transactional performance, customer attributes, and restaurant-level characteristics.

Analysis

1. Top 10 Restaurants by Total Sales Amount.

Business Objective

Identify the highest revenue-generating restaurants to understand revenue concentration and prioritize strategic partnerships.

Analytical Approach

Order-level sales were aggregated at the restaurant level and ranked based on total sales value.

Key Findings

- A small group of restaurants contributes a disproportionately high share of total revenue.
- The top 10 restaurants dominate overall sales performance.

Business Insight

Revenue dependency on a limited number of restaurants highlights both partnership opportunities and operational risk if top sellers disengage.

```

3 •   SELECT r.id AS restaurant_id, r.name AS restaurant_name,
4       SUM(o.sales_qty) AS total_sales
5   FROM orders o
6   JOIN restaurant r ON o.r_id = r.id
7   GROUP BY r.id, r.name
8   ORDER BY total_sales DESC
9   LIMIT 10;

```

Result Grid			
	restaurant_id	restaurant_name	total_sales
▶	416409	MAHARAJA GRILLS & ROLLS	14049
	537634	Iceberg Organic Icecreams	10667
	385543	CALLISTO	10667
	407770	New Hyderabadi Biriyani Zone	10667
	542825	Vibezz Kitchen	8800
	286268	Nandanam Restaurant	8000
	493031	Chalu Momos	6667
	230460	Nandhana Palace	6000
	244007	Wow! Momo	5333
	358151	Anugraha Milatri Hotel	5333

2. Average Rating and Total Rating Count for Restaurants in the Top 20 Cities.

Business Objective

Evaluate restaurant quality and customer engagement across major cities.

Analytical Approach

Cities were ranked by restaurant count, and average ratings along with rating volume were calculated.

Key Findings

- High restaurant density cities show strong customer engagement.
- Some cities with many restaurants still maintain moderate average ratings.

Business Insight

Quantity of restaurants does not guarantee quality. City-level quality control and restaurant onboarding standards are critical.

```
12      -- Tables(restaurants)
13 •  SELECT r.city, ROUND(AVG(r.rating), 2) AS average_rating,
14      SUM(r.rating_count) AS total_rating_count
15  FROM restaurant r
16  JOIN (
17    SELECT city
18    FROM restaurant
19    GROUP BY city
20    ORDER BY COUNT(*) DESC
21    LIMIT 20
22  ) top_cities ON r.city = top_cities.city
23  GROUP BY r.city
24  ORDER BY total_rating_count DESC;
25
```

Result Grid			
	city	average_rating	total_rating_count
▶	Bikaner	2.06	69816
	Indiranagar,Bangalore	2.31	61836
	Koramangala,Bangalore	2.07	48930
	Noida-1	1.48	44391
	HSR,Bangalore	1.99	42526
	BTM,Bangalore	1.47	37254
	Jadavpur,Kolkata	1.55	35089
	Madhapur,Hyderabad	1.59	34714
	Electronic City,Bangalore	1.49	32322
	Patna	1.64	31664
	Central Kolkata,Kolkata	1.75	31268
	Bandra West,Mumbai	2.07	31156
	Kukatpally,Hyderabad	1.32	30892
	Vashi,Mumbai	1.39	29368
	Powai,Mumbai	1.81	29097
	sohna road,Gurgaon	1.50	28473
	Malviya Nagar,Delhi	1.43	28434
	Gomti Nagar,Lucknow	1.07	23724
	Aliganj,Lucknow	1.06	19285
	Raj Nagar,Noida	0.93	17392

3. Monthly Order Trends Based on Order Volume.

Business Objective

Analyze demand fluctuations over time to support forecasting and campaign planning.

Analytical Approach

Orders were grouped by month and aggregated by count.

Key Findings

- Order volumes exhibit clear monthly variation.
- Certain months show consistent peaks, indicating seasonal demand.

Business Insight

Understanding seasonal trends enables better staffing, promotional timing, and supply planning.

```
27      -- Tables(orders)
28 •  select * from orders limit 10;
29 •  SELECT
30      DATE_FORMAT(order_date, '%Y-%m') AS order_month,
31      COUNT(order_id) AS total_orders
32  FROM orders
33  GROUP BY DATE_FORMAT(order_date, '%Y-%m')
34  ORDER BY order_month;
35
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	order_month	total_orders		
▶	2017-10	4293		
	2017-11	5500		
	2017-12	4975		
	2018-01	5320		
	2018-02	5024		
	2018-03	5238		
	2018-04	5120		
	2018-05	5279		
	2018-06	5534		
	2018-07	5405		
	2018-08	5379		
	2018-09	4873		
	2018-10	5171		
	2018-11	4905		
	2018-12	4293		
	2019-01	4691		
	2019-02	4630		
	2019-03	4664		
	2019-04	4447		
	2019-05	4740		
	2019-06	4385		
	2019-07	4958		
	2019-08	4091		
	2019-09	4142		
	2019-10	4299		
	2019-11	3944		
	2019-12	3431		
	2020-01	4003		
	2020-02	4031		
	2020-03	3583		
	2020-04	3621		

4. Top 5 Most Popular Cuisines by Order Volume.

Business Objective

Identify customer cuisine preferences to guide promotions and restaurant onboarding.

Analytical Approach

Orders were mapped to cuisines and ranked by total order volume.

Key Findings

- A few cuisines dominate overall demand.
- Popular cuisines are volume-driven rather than price-driven.

Business Insight

High-demand cuisines should be prioritized for discounts, visibility, and expansion.

```
37      -- Tables(orders, menu)
38 •  SELECT m.cuisine,
39          COUNT(o.order_id) AS total_orders
40    FROM orders o
41    JOIN menu m ON o.r_id = m.r_id
42    GROUP BY m.cuisine
43    ORDER BY total_orders DESC
44    LIMIT 5;
45
```



Result Grid		Filter Rows:	Export:	Wrap Cell Content:	Fetch rows:
cuisine	total_orders				
North Indian,Chinese	83443				
Indian,Chinese	63225				
North Indian	45671				
Indian	43938				
Chinese,North Indian	26935				

5. Distribution of Vegetarian vs Non-Vegetarian Items Ordered.

Business Objective

Understand dietary preferences across the customer base.

Analytical Approach

Ordered items were classified as vegetarian or non-vegetarian and counted.

Key Findings

- Non-vegetarian items account for the majority of orders.
- Vegetarian demand remains consistently significant.

Business Insight

Balanced menu offerings are essential, especially in regions with strong vegetarian demand.

```

47      -- Tables(orders, menu,food_item)
48 •   SELECT f.veg_or_non_veg,
49          COUNT(o.order_id) AS total_orders
50  FROM orders o
51  JOIN menu m ON o.r_id = m.r_id
52  JOIN food_items f ON m.f_id = f.f_id
53  GROUP BY f.veg_or_non_veg;
54

```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	veg_or_non_veg	total_orders		
▶	Non-veg	372966		
	Veg	821168		
	nan	920		

6. Top 20 Cities by Number of Restaurants.

Business Objective

Assess geographic concentration of restaurant supply.

Analytical Approach

Restaurants were counted and ranked by city.

Key Findings

- Restaurant supply is heavily concentrated in major metropolitan areas.
- Smaller cities remain under-represented.

Business Insight

There is potential for controlled expansion into emerging cities with unmet demand.

```

56      -- Table(restaurants)
57 •   SELECT city,
58          COUNT(id) AS restaurant_count
59  FROM restaurant
60  GROUP BY city
61  ORDER BY restaurant_count DESC
62  LIMIT 20;

```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:	Fetch rows:
	city	restaurant_count			
▶	Bikaner	1665			
	Noida-1	1424			
	BTM,Bangalore	1159			
	Indiranagar,Bangalore	1079			
	Electronic City,Bangalore	1039			
	Vashi,Mumbai	1021			
	Kukatpally,Hyderabad	1008			
	sohna road,Gurgaon	973			
	Koramangala,Bangalore	953			
	Gomti Nagar,Lucknow	915			
	HSR,Bangalore	898			
	Malviya Nagar,Delhi	896			
	Madhapur,Hyderabad	892			

7. Correlation Between User Demographics and Average Order Value.

Business Objective

Understand how customer characteristics influence spending behaviour.

Analytical Approach

Average order value was analyzed across demographic attributes such as age, income, and occupation.

Key Findings

- Higher income users place higher-value orders.
- Younger users order more frequently but spend less per order.

Business Insight

Customer segmentation enables targeted pricing, offers, and personalized marketing.

```
64      -- Tables(orders, users)
65 •  SELECT u.age,
66          u.gender,
67          u.educational_qualifications,
68          AVG(o.sales_qty) AS avg_order_value
69      FROM orders o
70      JOIN users u ON o.user_id = u.user_id
71      GROUP BY u.age, u.gender, u.educational_qualifications
72      LIMIT 10;
```

Result Grid				
	age	gender	educational_qualifications	avg_order_value
▶	22	Male	Graduate	16.3137
	23	Male	Post Graduate	15.7183
	23	Female	Graduate	17.9219
	26	Male	Ph.D	17.5055
	24	Female	Graduate	13.3729
	23	Female	Post Graduate	14.3323
	25	Female	Post Graduate	14.6915
	27	Male	Graduate	13.7662
	24	Male	Post Graduate	18.9991
	31	Male	Ph.D	15.7775

8. Top 15 Highest-Spending Users.

Business Objective

Identify high-value customers contributing significantly to revenue.

Analytical Approach

Total spending per user was calculated and ranked.

Key Findings

- A small set of users contributes a substantial share of total revenue.
- These users show consistent ordering behaviour.

Business Insight

High-spending users are ideal candidates for loyalty programs and exclusive benefits.

```
75      -- Tables(orders, users)
76 •  SELECT u.user_id,
77          u.name,
78          SUM(o.sales_qty) AS total_spent
79  FROM orders o
80  JOIN users u ON o.user_id = u.user_id
81  GROUP BY u.user_id, u.name
82  ORDER BY total_spent DESC
83  LIMIT 15;
```

Result Grid			
	user_id	name	total_spent
▶	60046	Donald Phillips	14050
	43819	Joe Carter	10704
	78855	Michael Martinez	10667
	58535	Lisa Logan	10667
	66926	Carmen Nelson	8809
	97856	Robert Stevenson	8004
	71745	Philip Smith	6667
	73359	Mr. Dennis Lawrence DVM	6000
	73767	Matthew Maldonado	5487
	15848	James Gonzalez	5345
	69218	Susan Francis	5345
	20337	Justin Moore	5343
	11486	Paula Griffin	5337
	29292	Dylan Haynes	5336
	58597	Jenna Wilson	5335

9. Top 15 Cuisines with the Highest Average Menu Prices.

Business Objective

Identify premium cuisine categories on the platform.

Analytical Approach

Average menu price was calculated per cuisine and ranked.

Key Findings

- Premium cuisines command higher prices but lower order volumes.
- Pricing does not directly correlate with popularity.

Business Insight

Premium cuisines act as margin drivers rather than volume drivers.

```

86      -- Tables(menu)
87 •   SELECT cuisine,
88         AVG(price) AS avg_price
89     FROM menu
90     GROUP BY cuisine
91     ORDER BY avg_price DESC
92     LIMIT 15;
93

```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:	Fetch rows:
	cuisine	avg_price			
▶	Street Food, Indian, Seafood	1800.000000			
	North Indian, Italian, Asian, Chinese, Thai, Con...	1500.000000			
	Indian, Continental, Salads, Snacks	1200.000000			
	Continental, Indian	1200.000000			
	Healthy Food,Snacks	1177.241593			
	Healthy Food, Snacks, Desserts	1000.000000			
	North Indian, Italian, Chinese	1000.000000			
	North Indian, Asian, Continental	1000.000000			
	Fast Food, Italian, Snacks, Lebanese	1000.000000			
	Indian, Italian, Continental, American, Lebanes...	900.000000			
	Asian,Desserts	871.862500			
	American, Continental, Desserts, Beverages	850.000000			
	Biryani, Combo	800.000000			

10. Restaurants with the Most Diverse Menus.

Business Objective

Evaluate whether menu diversity influences customer demand.

Analytical Approach

Restaurants were ranked based on the number of unique cuisines and food items offered.

Key Findings

- Restaurants with diverse menus attract more consistent orders.
- Limited menus show higher volatility in demand.

Business Insight

Encouraging menu diversification can improve restaurant performance and customer retention.

```

95      -- Tables(menu, food_item, restaurants)
96 •   SELECT r.name,
97         COUNT(DISTINCT m.cuisine) AS unique_cuisines,
98         COUNT(DISTINCT f.f_id) AS unique_dishes
99     FROM restaurant r
100    JOIN menu m ON r.id = m.r_id
101    JOIN food_items f ON m.f_id = f.f_id
102    GROUP BY r.name
103    ORDER BY unique_cuisines DESC, unique_dishes DESC
104    LIMIT 20;

```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:	Fetch rows:
	name	unique_cuisines	unique_dishes		
▶	Tea Post	11	388		
	Chai Sutta Bar	8	681		
	Karnavati Snacks	8	626		
	Five Star Chicken	8	265		
	Ms Food	7	553		
	La Pino'z Pizza	7	236		
	Momo Guy	7	166		
	The Chocolate Room	6	1060		
	Vipul Dudihiya Sweets	6	827		
	Mom's Kitchen	6	666		
	Shree Marutinandan	6	529		

11. Most Ordered Food Items Across All Restaurants.

Business Objective

Identify top-selling items to understand customer preferences.

Analytical Approach

Food items were ranked by total quantity ordered.

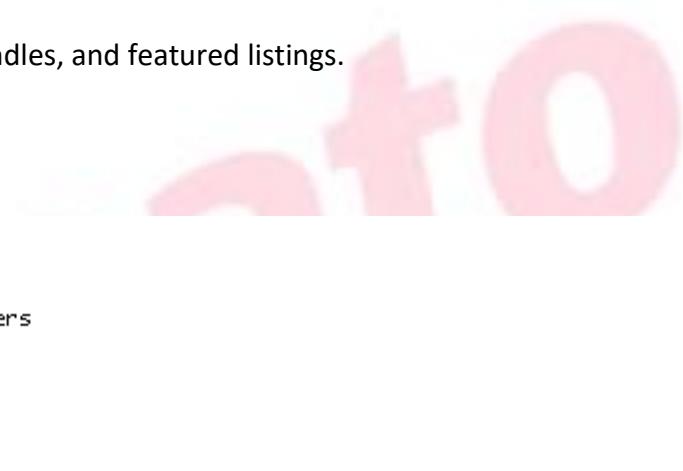
Key Findings

- A small number of items dominate total order volume.
- Popular items are typically affordable and widely available.

Business Insight

Top items should be leveraged in promotions, bundles, and featured listings.

```
107      -- Tables(orders, menu, food_item)
108 •  SELECT f.item,
109          COUNT(o.order_id) AS total_orders
110     FROM orders o
111     JOIN menu m ON o.r_id = m.r_id
112     JOIN food_items f ON m.f_id = f.f_id
113     GROUP BY f.item
114     ORDER BY total_orders DESC
115     LIMIT 20;
```



Result Grid		Filter Rows:	Export:	Wrap Cell Content:	Fetch rows:
item	total_orders				
Jeera rice	6189				
Veg Fried Rice	5918				
Paneer butter masala	5915				
FRENCH FRIES	4231				
DAL FRY	4153				
Butter Naan	3961				
Chicken Fried Rice	3708				
Veg biryani	3648				
Cold Coffee	3539				
Egg Fried rice	3006				
DAL MAKHANI	3002				
VEG PULAO	2897				
PLain Rice	2837				
Garlic naan	2766				
SHAIH PANEER	2763				
Green Salad	2593				
Butter Roti	2529				
PANEER TIKKA	2466				
Plain Naan	2433				
Chana Masala	2408				

12. Spending Behaviour Difference Between Genders.

Business Objective

Analyzed spending patterns across gender segments.

Analytical Approach

Average order value and total spending were calculated by gender.

Key Findings

- Spending behaviour differs across genders.
- One group tends to place higher-value orders, while the other orders more frequently.

Business Insight

Gender-based segmentation can enhance personalization and campaign effectiveness.

```
118      -- Tables(orders, users)
119 •  SELECT u.gender,
120          AVG(o.sales_qty) AS avg_spend,
121          SUM(o.sales_qty) AS total_spend
122     FROM orders o
123     JOIN users u ON o.user_id = u.user_id
124    GROUP BY u.gender;
```

The screenshot shows a database query results grid. At the top, there is a toolbar with icons for Result Grid, Filter Rows, Export, and Wrap Cell Content. Below the toolbar is a table with three columns: gender, avg_spend, and total_spend. There are two rows of data: Male and Female. The Male row has a value of 16.5075 for avg_spend and 1418443 for total_spend. The Female row has a value of 15.9412 for avg_spend and 1025877 for total_spend. The Female row is currently selected, indicated by a blue background.

	gender	avg_spend	total_spend
▶	Male	16.5075	1418443
	Female	15.9412	1025877

13. Peak Order Volumes by Day of the Week.

Business Objective

Identify high-demand days to optimize operations and marketing.

Analytical Approach

Orders were grouped by day of the week and aggregated.

Key Findings

- Weekends experience significantly higher order volumes.
- Mid-week demand remains stable but lower.

Business Insight

Weekend-focused promotions and weekday incentives can help balance demand.

```

127      -- Tbales(orders)
128 •  SELECT DAYNAME(order_date) AS day_name,
129          COUNT(order_id) AS total_orders
130      FROM orders
131      GROUP BY day_name
132      ORDER BY total_orders DESC;

```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	day_name	total_orders		
▶	Friday	35293		
	Thursday	29598		
	Tuesday	29486		
	Wednesday	29021		
	Monday	26345		
	Saturday	408		
	Sunday	130		

14. Order Frequency Variation Across Income Groups.

Business Objective

Understand how income level affects ordering behaviour.

Analytical Approach

Users were grouped by income brackets and analyzed for order frequency.

Key Findings

- Lower income groups place more frequent orders with lower value.
- Higher income groups place fewer but higher-value orders.

Business Insight

Different income segments require distinct pricing and engagement strategies.

```

135      -- Tables(orders, users)
136 •  WITH user_spending AS (
137          SELECT user_id,
138              SUM(sales_qty) AS total_spent
139          FROM orders
140          GROUP BY user_id
141      )
142      SELECT
143          CASE
144              WHEN total_spent < 5000 THEN 'Low'
145              WHEN total_spent BETWEEN 5000 AND 20000 THEN 'Medium'
146              ELSE 'High'
147          END AS income_group_proxy,
148          COUNT(*) AS total_users
149      FROM user_spending
150      GROUP BY income_group_proxy;

```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	income_group_proxy	total_users		
▶	Low	77909		
	Medium	20		

Cross-Analysis Insights

This cross-analysis examines the relationships between **city performance, cuisine pricing, user income levels, ordering behaviour, and restaurant characteristics**. By combining insights across multiple dimensions, the analysis highlights how demand, pricing, and customer behaviour interact to influence overall platform performance. These findings help explain not just *what* is happening in the data, but *why* certain trends emerge across different segments. Cities with many restaurants do not always have better ratings.

- Expensive cuisines get fewer orders but earn more per order.
- High-income users spend more money but order less often.
- Low-income users order frequently but with smaller order values.
- Restaurants with more menu options get more stable orders.
- Most orders happen on weekends across all user groups.
- Popular cuisines are usually affordable and widely available.

Business Recommendations

Based on the cross-analysis findings, the following recommendations focus on **improving revenue, customer retention, and operational efficiency**. These actions are designed to align pricing, promotions, and platform strategy with observed user behaviour and restaurant performance, ensuring sustainable growth without sacrificing quality.

- Give special rewards to top-spending users.
- Encourage restaurants to add more menu items.
- Promote premium cuisines without heavy discounts.
- Run special offers on weekdays to increase orders.
- Expand restaurants in cities with high ratings but low competition.
- Create different offers for different income groups.
- Improve quality checks in cities with too many restaurants.

Limitations & Assumptions

This analysis is based on the available dataset and therefore includes certain assumptions and limitations. These constraints may affect the interpretation of results and should be considered when drawing conclusions or making business decisions from the findings.

- User income data may not be fully accurate.
- Discounts and delivery distance are not included.
- Ratings may be influenced by frequent users only.

- External factors like festivals are not considered.

Conclusion

This project demonstrates the practical application of SQL in analyzing large-scale Zomato sales data to uncover meaningful business insights. By transforming raw transactional data into structured information, the analysis provides a clear understanding of restaurant performance, customer behaviour, and demand patterns across different cities and cuisines.

- SQL was effectively used to analyze and aggregate Zomato sales data for decision-making.
- The analysis identified top-performing restaurants, cuisines, and cities based on orders and revenue.
- Customer spending behaviour varies significantly across income levels and gender groups.
- Premium cuisines generate higher revenue per order despite lower order volumes.
- Cities with a higher number of restaurants do not always achieve better customer ratings.
- The insights can help optimize marketing strategies, pricing models, and restaurant partnerships.
- This project highlights the importance of data-driven approaches in supporting strategic business decisions.
- Overall, the study demonstrates how analytical skills can be applied to solve real-world business problems using data.