

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			
Filter Rows:		Export:	Wrap Cell Content: Fetch rows:
restaurant_id	restaurant_name	total_sales	
416409	MAHARAJA GRILLS & ROLLS	14049	
537634	Iceberg Organic Icecreams	10667	
385543	CALLISTO	10667	
407770	New Hyderabad Biryani 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			
Filter Rows: <input type="text"/> Export: Wrap Cell Content:			
	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	Filter Rows:	Export:	Wrap Cell Content:	Fetch rows:
	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	Filter Rows:	Export:	Wrap Cell Content:	Fetch rows:
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

```

	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;

```

	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 Dudhiya 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(ordes, 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				
	SHAHI 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;
```

Result Grid				Filter Rows:	Export:	Wrap Cell Content:
	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.