

# Zomato Data Analysis

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Data source: <https://www.kaggle.com/datasets/piyushp073/sales-data-for-zomato-dashboard>

## **1. Data Import**

The dataset was sourced from Kaggle: [Zomato Sales Dataset](#). The data was imported into Power BI as an Excel/CSV file.

## **2. Data Cleaning & Transformation**

- Renamed columns for better readability (e.g., Order\_Date, City, Sales, etc.)
- Converted data types (e.g., dates and numeric fields)
- Removed null values and duplicate rows to ensure data quality
- Applied filters and transformed the data using Power Query Editor
- Created meaningful queries and append steps (if multiple tables were used)

## **3. Dashboard & Visualization**

The dashboard includes multiple visuals such as:

- **Cards** to show key KPIs (Total Sales, Number of Orders, Average Rating, etc.)
- **Bar Chart** to display sales distribution by city or product
- **Pie/Donut Charts** for category-wise or city-wise order distribution
- **Line Chart** for trend analysis over months
- **Slicers** for interactive filtering based on cities, order types, etc.
- Proper **legends, labels, and tooltips** were used for enhanced readability and interactivity

#### **4. DAX Measures & Calculated Columns**

I created:

- **At least 2 Measures** (e.g., Total Sales, Average Rating, Total Orders)
- **At least 2 Calculated Columns** (e.g., Month Name from date, Profit category)
- Used DAX functions like SUM(), COUNTA(), IF(), CALCULATE(), etc., to derive custom insights

##### **1. avg\_rating**

```
avg_rating = DIVIDE(SUM(restaurant[rating]),COUNT(orders[user_id]))
```

- Purpose: Calculates the average user rating per order.
- How: Divides the total sum of ratings by the number of orders.
- Used in: KPI card titled “Average User Rating”.

##### **2. avg\_rating\_yoy\_ytd**

```
avg_rating_yoy_ytd =
```

```
VAR selectedYear = SELECTEDVALUE(orders[year])
```

```
VAR prevYear = selectedYear - 1
```

```
VAR ytdCutoffDate =
```

```
    CALCULATE(  
        MAX(orders[order_date])  
)
```

```
VAR ytdCutoffPrevYear =
```

```
    DATE(prevYear, MONTH(ytdCutoffDate), DAY(ytdCutoffDate))
```

```
VAR selectedYTD =
```

```
    CALCULATE(  
        DIVIDE(  
            SUM(restaurant[rating]),  
            DISTINCTCOUNT(orders[user_id])  
,  
            orders[order_date] <= ytdCutoffDate  
)
```

```
VAR prevYTD =
```

```
    CALCULATE(  
        DIVIDE(  
            SUM(restaurant[rating]),  
            DISTINCTCOUNT(orders[user_id])  
,  
            orders[year] = prevYear,  
            orders[order_date] <= ytdCutoffPrevYear  
)
```

VAR growth =  
DIVIDE(selectedYTD - prevYTD, prevYTD)

RETURN IF(ISBLANK(growth), 0, growth)

Calculating YoY change in average rating (Year-To-Date)

- Purpose: Measures year-over-year (YTD) change in average rating.
- Logic:
  - Gets the selected year and previous year.
  - Determines the YTD cutoff date (max date of orders in selected year).
  - Calculates average ratings YTD for both current and previous year.
  - Returns percentage growth or decline.
- Used in: Page 2 – YoY Average User Rating visual.

### 3. avg\_sales\_amt

avg\_sales\_amt = DIVIDE(SUM(orders[sales\_amount]), DISTINCTCOUNT(orders[user\_id]))

- Purpose: Average sales per user.
- How: Total sales divided by unique users.
- Used in: Page 1 card “Average Sales Amount”.

### 4. avg\_sales\_amt\_yoy\_ytd

avg\_sales\_amt\_yoy\_ytd =  
VAR selectedYear = SELECTEDVALUE(orders[year])  
VAR prevYear = selectedYear - 1

VAR ytdCutoffDate =  
CALCULATE(  
MAX(orders[order\_date])  
)

VAR ytdCutoffPrevYear =  
DATE(prevYear, MONTH(ytdCutoffDate), DAY(ytdCutoffDate))

VAR selectedYTD =  
CALCULATE(  
DIVIDE(  
SUM(orders[sales\_amount]),  
DISTINCTCOUNT(orders[user\_id])  
,  
orders[order\_date] <= ytdCutoffDate

```
)  
  
VAR prevYTD =  
    CALCULATE(  
        DIVIDE(  
            SUM(orders[sales_amount]),  
            DISTINCTCOUNT(orders[user_id])  
        ),  
        orders[year] = prevYear,  
        orders[order_date] <= ytdCutoffPrevYear  
    )  
  
VAR growth =  
    DIVIDE(selectedYTD - prevYTD, prevYTD)  
  
RETURN IF(ISBLANK(growth), 0, growth)
```

Similar to avg\_rating\_yoy\_ytd, but for average sales amount

- Purpose: Computes YoY change in average sale value (YTD).
- Logic: Same as rating YoY logic but uses orders[sales\_amount] instead.
- Used in: Page 2 – “YoY Average Sales Growth”.

## 5. sales\_amt\_yoy\_ytd

```
sales_amt_yoy_ytd =  
VAR selectedYear = SELECTEDVALUE(orders[year])  
VAR prevYear = selectedYear - 1
```

```
VAR ytdCutoffDate =  
    CALCULATE(  
        MAX(orders[order_date])  
    )
```

```
VAR ytdCutoffPrevYear =  
    DATE(prevYear, MONTH(ytdCutoffDate), DAY(ytdCutoffDate))
```

```
VAR selectedYTD =  
    CALCULATE(  
        SUM(orders[sales_amount]),  
        orders[order_date] <= ytdCutoffDate  
    )
```

```
VAR prevYTD =  
    CALCULATE(  
        SUM(orders[sales_amount]),  
        orders[year] = prevYear,  
        orders[order_date] <= ytdCutoffPrevYear  
    )
```

VAR growth =  
DIVIDE(selectedYTD - prevYTD, prevYTD)

RETURN IF(ISBLANK(growth), 0, growth)

Calculates total sales YoY growth (YTD)

- Purpose: Measures YoY growth in total sales.
- Logic:
  - Gets total sales till current YTD in selected year.
  - Gets total sales for same period in previous year.
  - Returns growth %.
- Used in: Page 2 – “YoY Sales Growth” card.

## 6. **total\_sale\_amount**

total\_sale\_amount = SUM(orders[sales\_amount])

- Purpose: Total sales amount.
- Used in: Page 1 KPI card “Total Sales”.

## 7. **user\_count**

user\_count = DISTINCTCOUNT(orders[user\_id])

- Purpose: Count of unique users who placed orders.
- Usage: Supporting metric for per-user or per-order analysis.

## 8. **measure = ROW("Column", BLANK())**

- Purpose: Placeholder or dummy row (not for visualization).
- Could be used to fix a table or for layout reasons.

## 5. **Web Scraping : Not performed** (Zomato does not give web scrapping permission)

## 6. **Final Conclusion**

- Clear thematic focus on **sales performance for Zomato**
- Strategic use of filters and visual storytelling
- Business insights such as:
  - Best performing cities
  - Monthly sales trend

- Product/service categories with highest ratings or revenue

## Page 1 – Sales Overview Dashboard

### 1. Total Sales

- Displayed as ₹963.80M using a **card visual**.

### 2. Average Sales Amount

- Average sale per transaction: ₹12.43K.

### 3. Average User Rating

- Overall rating: 1.61.

### 4. Top 5 Cities by Sales

- Displayed using a **horizontal bar chart** (e.g., ₹42.50M, ₹28.60M...).

### 5. Sales Value Trend (by Year)

- Shown using a **line chart** from 2017 to 2020.

### 6. Top Occupations of Users

- Visualized using a **donut chart** for categories like:
  - Student
  - Employee
  - Self Employed
  - Housewife

## Page 2 – Comparative & Detailed Insights

### 1. YoY Sales Growth

- Year-over-year growth shown as **103.81%** (card visual).

### 2. YoY Average Sales Growth

- A decrease of **-14.90%** from the previous year.

### 3. YoY Average User Rating Change

- Shown as **-58.25%**, indicating a drop from the previous year.

### 4. Sales Comparison – Non-Veg vs Veg Items

- ₹12.61M (non-veg) vs ₹14.68M (veg), supported with images.

### 5. Top 5 Cuisines by Sales

- Bar chart for cuisines (e.g., ₹12M, ₹11M, ₹10M...).

## 6. Marital Status of Customers

- Donut chart showing:
  - Single: 63.06%
  - Married: 27.87%
  - Prefer not to say: 9.09%

