

Zomato Data Analysis

Case Study

Presented by:

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BACKGROUND

Zomato, a leading food delivery platform in India, is grappling with declining customer satisfaction, inconsistent delivery times, and variable sales performance across regions. Leadership is concerned about decreasing repeat customers and rising order cancellations. As a junior data analyst, your task is to analyze a dataset encompassing customer orders, restaurant ratings, and delivery metrics to uncover actionable insights.



PROBLEM



Zomato is facing a decline in customer engagement and rising order cancellations. Customers are leaving due to issues such as delayed deliveries, incorrect orders, and poor service. Cancellations could be caused by unreliable customer support, inaccurate delivery estimates, or restaurant-related problems like unavailable menu items or slow food preparation. These issues are affecting user trust and satisfaction, leading to decreased loyalty and higher churn rates.

Solution

Data Analysis

Delivery Time Optimization: Analyze delivery time data across different regions to identify patterns

Data - Driven Insights

Order Cancellation Analysis: Investigate the root causes of cancellations, whether due to restaurant delays, food quality, or delivery issues.

Stakeholders Engagement

Engage with restaurant partners to improve order accuracy and delivery speed. Involve the customer support team to address feedback and enhance satisfaction.



Technology



- *Visualisation tool:* LOOKER STUDIO.
- *Metric Functions:*
SUM,AVERAGE,COUNT.



- DATA SOURCES
- DATA WRANGLING
- DATA ANALYSIS
- DATA VISUALISATION

Methodology

GOAL

The primary goal is to improve customer retention, satisfaction, and operational efficiency at Zomato by addressing issues related to declining customer engagement, fluctuating delivery times, and inconsistent sales performance across regions.

The objective is to use data analysis to uncover actionable insights that enhance service quality, reduce order cancellations, and boost repeat customer rates.

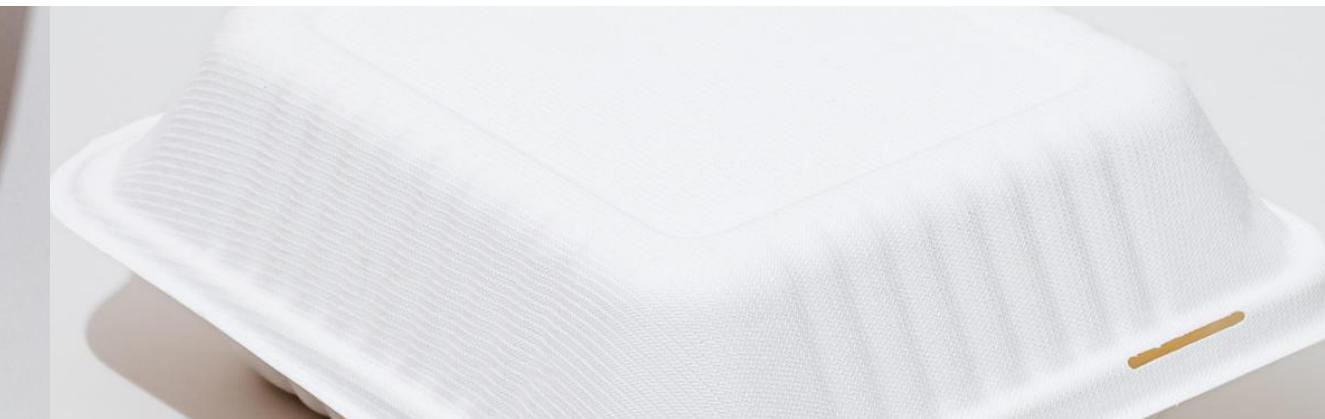




KPI

The Metric development examines :

- Average Delivery Time
- Total Number of Orders completed
- On time Delivery Rate
- Average Number of Items



Recommended Analysis

1. total number of completed orders:

- Filter by Order_Status = "Completed".
- **Visualization Type: Scorecard**
- **Why Use This Visualization:** A **Scorecard** is ideal for displaying key metrics at a glance, such as total completed orders. It provides a quick overview without clutter.
- **Step-by-Step in Looker Studio:**
 - a. Import the zomato_sales_data.csv file into Looker Studio.
 - b. Add a **Scorecard** to the report.
 - c. Filter by Order_Status = "Completed."
 - d. Set the metric to "Count Distinct" for Order_ID.
- **Output:** The total number of orders completed are 344.



2. Average delivery time for completed orders across all cities?

- Filter for Order_Status = "Completed" and calculate the average from Delivery_Time.
- **Visualization Type: Bar Chart**
- **Why Use This Visualization:** A Bar Chart clearly shows comparison across categories (in this case, cities), allowing for easy analysis of which city has higher delivery times.
- **Step-by-Step in Looker Studio:**
 - a. Add a **Bar Chart** to the report.
 - b. Use City as the dimension.
 - c. Select Delivery_Time as the metric and set it to "Average."
 - d. Apply a filter for Order_Status = "Completed."
 - e. Customize the title and colors for better readability.
- **Output:** Bangalore-57.04, Delhi-57.0, Hyderabad
-55.2, Mumbai-52.3, Chennai-48.4, Kolkata -47.9





3. Most used payment method:

- Group by Payment_Method and count the occurrences.
- **Visualization Type: Pie Chart**
- **Why Use This Visualization:** A **Pie Chart** is effective when you need to show proportions and compare how each payment method contributes to the total number of orders.
- **Step-by-Step in Looker Studio:**
 - a. Add a **Pie Chart** to the report.
 - b. Set Payment_Method as the dimension.
 - c. Use Order_ID as the metric and set it to "Count Distinct."
 - d. Customize the pie slices to display percentages.
- **Output:** The most used payment method is UPI(26.8%)



4. Trend of total revenue generated over time:

- Sum the Total_Amount and group by Order_Date to see the trend.
- **Visualization Type: Time Series Chart**
- **Why Use This Visualization:** A Time Series Chart is ideal for tracking trends over time. It visually represents fluctuations in revenue, helping stakeholders identify peak periods and trends.
- **Step-by-Step in Looker Studio:**
 - Add a **Time Series Chart**.
 - Use Order_Date as the dimension and Total_Amount as the metric.
 - Set the aggregation for Total_Amount to "Sum."
 - Adjust the date range and axis labels for clarity.
- **Output:** On September 12, 2024 ,the total revenue is 2,034.19.

5. Which city generates the most revenue?

- Group by City and sum the Total_Amount.
- **Visualization Type: Geo Map**
- **Why Use This Visualization:** A **Geo Map** is effective when analyzing location-based data. It visually displays which cities contribute the most to Zomato's revenue.
- **Step-by-Step in Looker Studio:**
 - a. Add a **Geo Map** to the report.
 - b. Use City as the dimension.
 - c. Set Total_Amount as the metric and aggregate it by "Sum."
 - d. Adjust the map to show city locations with bubble sizes representing revenue.
- **Output:** The highest revenue generated in Mumbai (109,629.3).



6. distribution of customer ratings across all orders:

- *Group by Customer_Rating and count the number of orders.*
- **Visualization Type: Histogram**
- **Why Use This Visualization:** A Histogram is perfect for showing the distribution of data, such as customer ratings. It helps analyze how frequently different ratings are given.
- **Step-by-Step in Looker Studio:**
 - a. *Add a Histogram.*
 - b. *Use Customer_Rating as the dimension.*
 - c. *Set Order_ID as the metric and aggregate it by "Count Distinct."*
 - d. *Customize the bins to represent each rating from 1 to 5.*
- **Output:** customer ratings--3/5



7. Which cuisine type has the highest average order value?

- Group by *Cuisine_Type* and calculate the average of *Total_Amount*.
- **Visualization Type: Column Chart**
- **Why Use This Visualization:** A *Column Chart* helps compare average order values across different cuisine types in a clear and easy-to-read format.
- **Step-by-Step in Looker Studio:**
 - a. Add a **Column Chart**.
 - b. Set *Cuisine_Type* as the dimension.
 - c. Use *Total_Amount* as the metric and set it to "Average."
 - d. Customize the chart to highlight the differences between cuisine types.
- **Output:** Mexican(636.2) has the average order value.



8. Total delivery times across various order statuses:

- Group by Order_Status and calculate the sum of Delivery_Time.
- **Visualization Type: Stacked Bar Chart**
- **Why Use This Visualization:** A **Stacked Bar Chart** allows for easy comparison of total delivery times across different order statuses, making it easier to visualize operational inefficiencies.
- **Step-by-Step in Looker Studio:**
 - a. Add a **Stacked Bar Chart**.
 - b. Set Order_Status as the dimension.
 - c. Use Delivery_Time as the metric and set it to "Sum."
 - d. Customize the colors for each status for clarity.
- **Output:** Completed(18,228), Cancelled(17,956), Failed(17,740).



9. How do delivery times differ by cuisine type?

- Group by Cuisine_Type and calculate the average delivery time.
- **Visualization Type: Heat Map**
- **Why Use This Visualization:** A Heat Map visually shows variations in data. It's useful for analyzing how delivery times differ across cuisines, with the intensity of the color representing delivery speed.
- **Step-by-Step in Looker Studio:**
 - a. Add a **Heat Map**.
 - b. Use Cuisine_Type as the dimension.
 - c. Set Delivery_Time as the metric and aggregate it by "Average."
 - d. Adjust the color intensity to reflect faster and slower delivery times.
- **Output:** 55.6 is the average delivery time that differ by cuisine type.



10. What is the average number of items per order for different payment methods?

- Group by Payment_Method and calculate the average of Number_of_Items.
- **Visualization Type: Treemap**
- **Why Use This Visualization:** A **Treemap** provides a hierarchical view of the data and is great for comparing multiple categories like payment methods and the average number of items in each order.
- **Step-by-Step in Looker Studio:**
 - a. Add a **Treemap**.
 - b. Set Payment_Method as the dimension.
 - c. Use Number_of_Items as the metric and set it to "Average."
 - d. Customize the treemap to show the size of each payment method based on the average items per order.
- **Output:** Cash (5.73), Credit card (5.58), Debit card (5.53), UPI (4.94).



CONCLUSION

The analysis reveals key factors affecting Zomato's customer retention: fluctuating delivery times, inconsistent regional performance, and declining customer satisfaction. Delays in delivery significantly impact repeat orders, while regions with lower restaurant ratings see higher cancellations. To improve, Zomato should focus on optimizing delivery logistics and enhancing customer engagement with personalized offers. These measures will boost customer loyalty and operational efficiency.



PROJECT OWNER: DIYA SURANA



Thankyou