Project Report on

Zomato's Bengaluru Restaurant Data Analysis

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ABSTRACT

Whenever we visit a new place, we want to go to the best restaurant or the cheapest restaurant, but a decent one. Or we can first look at the ratings or the reviews if we want to try food in some new restaurants. Zomato is one such app that provides users with ratings and reviews of restaurants across India. Ratings or reviews are considered to be one of the most significant/decisive variables that decide how good a restaurant is. We will therefore use the real time data set here in our project that has different factors/features that a user can investigate about a restaurant. We restrict our data only to Bengaluru City.

Zomato, a leading online food delivery platform in Bengaluru, India, connects customers with restaurant and delivery partners, offering diverse services such as food delivery, dining-out bookings, and restaurant marketing tools. This project report presents an in-depth analysis of Zomato's Bengaluru restaurant data to address critical business challenges and optimize its strategic initiatives. Leveraging a comprehensive dataset and Power BI for visualization, the report aims to extract actionable insights on customer behavior, restaurant performance, delivery efficiency, customer satisfaction, and market trends.

The primary objectives of this analysis are to understand customer engagement patterns, identify top-performing restaurants, streamline delivery processes, enhance customer satisfaction, and stay abreast of market trends. Key business questions explored include the distribution of customers between food delivery and dining out, locations with the highest engagement, popular restaurant types, top-rated restaurants, correlation between ratings and votes, impact of specific dishes on ratings, growth in restaurant listings over time, and popularity trends of various cuisines.

The dataset encompasses various metrics, such as customer reviews, ratings, votes, pricing, and operational details. The findings reveal significant trends and correlations that can guide Zomato's strategic decisions. For instance, understanding the correlation between menu item availability and customer satisfaction, the impact of reviews on restaurant ratings, and the distribution of online versus phone orders provides a nuanced understanding of customer preferences. Additionally, insights into market trends and the popularity of different cuisines inform Zomato's adaptive strategies to maintain a competitive edge.

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1: INTRODUCTION

1.1 Problem Definition

In today's digitized modern world, popularity of food apps is increasing due to its functionality to view, book and order for food by a few clicks on the phone for their favorite restaurant or cafes, by surveying the user ratings and reviews of the previously visited customers. Restaurant Rating also provides columns for writing classified user reviews. The fundamental concept of analyzing the Zomato dataset is to get a reasonable idea of the factors influencing each restaurant's aggregate ranking, setting up different types of restaurants at different locations, Bengaluru being one such city has more than 8000 restaurants serving dishes from all over the world. The industry has not been saturated with new restaurants opening every day yet, and demand is growing day by day. However, it has become difficult for new restaurants to compete with existing restaurants, amid growing demand. They mostly serve the same food. Bengaluru is India's IT capital. Most people here are mostly reliant on restaurant food because they don't have time to prepare for themselves. It has thus become important to research the demographics of a place with such an enormous demand for restaurants. What kind of food in a town is more prevalent.

Zomato is a leading online food delivery platform in Bengaluru, that connects customers with restaurant and delivery partners. Since its inception, Zomato has revolutionized the culinary landscape by offering a variety of services including food delivery, dining-out bookings, and marketing tools for restaurants. The platform aims to provide a seamless culinary experience for its users, striving to enhance customer satisfaction and loyalty through data-driven insights. Even restaurants from all over the world can be found here in Bengaluru, with various kinds of cuisines.

In today's highly competitive food service industry, understanding customer behavior and market trends is crucial for maintaining a competitive edge. Zomato, with its vast repository of data, is uniquely positioned to leverage this information to optimize its business strategies. The company has initiated a project to develop a comprehensive Power BI dashboard that will enable data analysts to extract valuable insights from the data and make informed decisions.

1.2 Objective

The primary objective of this project is to address several key business issues that Zomato faces. These include understanding customer engagement levels, identifying top-performing restaurants, optimizing delivery service efficiency, enhancing customer satisfaction, and staying ahead of market trends. By analyzing various aspects of the restaurant data, the project aims to provide actionable insights that can drive growth and improve service quality.

1.3 Purpose

The purpose of this project is to leverage data analytics to provide Zomato with comprehensive insights into its operational performance, customer behavior, and market trends, thereby enabling data-driven decision-making to optimize business strategies. Specifically, this project aims to develop a Power BI dashboard that will serve as a powerful tool for Zomato's data analysts and management team to visualize and interpret complex datasets effectively. By understanding customer engagement, the project seeks to uncover how customers interact with Zomato's platform, including their preferences for food delivery versus dining out and their engagement levels across different locations. This insight will help Zomato tailor its offerings to better meet customer needs, enhancing satisfaction and loyalty.

1.4 Technology

The technology stack for this project encompasses a range of tools and platforms that facilitate data collection, cleaning, analysis, visualization, and reporting. The primary technologies used Microsoft Power BI.

Microsoft Power BI:

Power BI is a business analytics tool used to create interactive visualizations and dashboards. It allows for seamless integration with various data sources and provides powerful data modeling capabilities.

➢ Features:

1. Data Visualization: Power BI offers a wide range of visualization options including bar charts, line charts, scatter plots, and maps, enabling the effective communication of data insights.

2. Interactive Dashboards: The platform allows for the creation of interactive and user-friendly dashboards that facilitate data exploration and insight generation.
3. Data Connectivity: Power BI supports integration with multiple data sources, including databases, cloud services, and flat files, providing flexibility in data import and management.

4. DAX (Data Analysis Expressions): Power BI uses DAX for data modeling and creating custom calculations, enhancing the analytical capabilities of the dashboards.

2: PROJECT SCOPE

2.1 Project Scope

The scope of this project encompasses a comprehensive analysis of Zomato's restaurant data in Bengaluru, utilizing advanced data analytics techniques and Power BI for visualization. This analysis aims to address key business challenges and provide actionable insights that can enhance Zomato's operational performance, customer engagement, and strategic decision-making.

- Data Collection and Preparation:

  The project will involve gathering a rich dataset from Zomato's platform, including information on customer reviews, ratings, votes, pricing, restaurant types, cuisines, and operational metrics.

  Data cleaning and preprocessing will be performed to ensure accuracy and reliability, including handling missing values, removing duplicates, and standardizing data formats.

- Exploratory Data Analysis (EDA):

  A detailed EDA will be conducted to understand the underlying patterns and trends in the data.

  This will include visualizing the distribution of customers using the platform for food delivery versus dining out, identifying popular restaurant types, and analyzing customer engagement across different locations.

- Restaurant Performance Evaluation:

  The performance of various restaurants will be assessed based on customer ratings, reviews, and popularity.

  The project will identify top-performing restaurants, analyze the correlation between ratings and votes, and determine specific dishes that correlate with higher ratings.

- Delivery Service Efficiency Analysis:

  The efficiency of Zomato's delivery services will be examined by comparing the distribution and performance of online orders versus dining-in bookings and phone orders.

  The goal is to identify areas where delivery processes can be optimized to reduce delays and improve overall service efficiency.

- Customer Satisfaction Analysis:

  Factors influencing customer satisfaction will be identified by analyzing customer reviews and ratings.

  The project will explore how the availability of menu items, cost, and other factors impact satisfaction levels and identify inconsistencies in customer experiences.

- Market Trends Identification:

  Emerging market trends will be identified by analyzing the growth and popularity of different cuisines and restaurant types over time.This analysis will help Zomato adapt its offerings to changing customer preferences and market dynamics.

- Development of Power BI Dashboard:

  A comprehensive Power BI dashboard will be developed to visualize the insights gained from the analysis.

  The dashboard will present data in an interactive and user-friendly manner, enabling Zomato's data analysts and management team to make informed decisions quickly and effectively.

- Strategic Recommendations:

  Based on the analysis, the project will provide strategic recommendations to enhance customer engagement, improve restaurant performance, optimize delivery efficiency, increase customer satisfaction, and stay competitive in the market.

The scope of this project ensures a thorough and detailed analysis of Zomato's Bengaluru restaurant data, leveraging the power of data analytics and visualization to address key business challenges and support Zomato's strategic objectives.

3: DATASET DESCRIPTION

3.1 Properties of dataset

3.1.1 File Format

The dataset is provided in CSV (Comma-Separated Values) format, a commonly used file format for storing tabular data. CSV files are easily readable and can be opened and manipulated using various software applications.

3.1.2 File Size

The total size of the dataset is approximately 547MB, indicating the amount of storage space required to store the dataset on a system or server. The dataset examined has the following dimensions:

Feature	Result
Number of Observations	51K+
Number of Attributes	17

3.1.3 Content of file

The dataset contains 17 attributes all of which were scraped from the Zomato website. The dataset contains details of more than 8000 restaurants in Bengaluru in each of its neighborhood.

3.2 Data Attributes and Description

The dataset used for this analysis comprises various features providing insights into the restaurants listed on Zomato's platform in Bengaluru. Each feature captures different aspects of the restaurant, its offerings, and customer feedback. Below is a detailed description of each attributes:

1) url: This feature contains the URL of the restaurant on the Zomato website, allowing users to access additional information and reviews.

2) address: The address feature provides the physical location of the restaurant in Bengaluru, facilitating navigation and accessibility for customers.

3) name: This feature contains the name of the restaurant, helping users identify and distinguish between different establishments.

4) online_order: Indicates whether online ordering is available at the restaurant,

providing convenience for customers to place orders digitally.

5) book_table: Specifies whether the restaurant offers the option to book a table in advance, allowing customers to secure seating arrangements for their dining experience.

6) rate: Represents the overall rating of the restaurant, ranging from 1 to 5 stars, reflecting the aggregate satisfaction level of customers.

7) votes: Indicates the total number of upvotes or ratings provided by customers, serving as a measure of the restaurant's popularity and customer engagement.

8) phone: Contains the contact phone number of the restaurant, enabling customers to make inquiries or reservations directly.

9) location: Specifies the neighborhood or locality in Bengaluru where the restaurant is situated, aiding users in identifying nearby dining options.

10) rest_type: Describes the type or category of the restaurant, such as fine dining, casual dining, cafe, bar, etc., providing insights into the dining experience offered.

11) dish_liked: Lists the dishes that are popular or liked by customers at the restaurant, helping potential diners make informed choices about their meal selections.

12) cuisines: Indicates the variety of food styles or cuisines offered by the restaurant, typically separated by commas, showcasing the diversity of culinary options available.

13) approx_cost(for two people): Specifies the approximate cost of a meal for two people at the restaurant, aiding customers in budgeting and decision-making.

14) reviews_list: Contains a list of tuples comprising customer reviews for the restaurant, with each tuple consisting of a rating and corresponding review, offering insights into customer experiences and satisfaction levels.

15) menu_item: Lists the menus or dishes available at the restaurant, providing customers with an overview of the culinary offerings.

16) listed_in(type): Indicates the type of meal or dining experience offered by the restaurant, such as delivery, dine-out, or takeaway, guiding customers in selecting the appropriate service.

17) listed_in(city): Specifies the neighborhood or locality in Bengaluru where the restaurant is listed, facilitating geographical categorization and search functionality within the Zomato platform.

This comprehensive dataset enables a detailed analysis of various aspects of the restaurant industry in Bengaluru, including customer preferences, restaurant performance, and market trends, contributing to informed decision-making and strategic planning for both Zomato and its restaurant partners.

3.3 Use of dataset

The basic idea of analyzing the Zomato dataset is to get a fair idea about the factors affecting the establishment of different types of restaurants at different places in Bengaluru, aggregate rating of each restaurant, Bengaluru being one such city has more than 8000 restaurants with restaurants serving dishes from all over the world. With each day new restaurants opening the industry has not been saturated yet and the demand is increasing day by day. Inspite of increasing demand it however has become difficult for new restaurants to compete with established restaurants. Most of them serving the same food. Bengaluru being an IT capital of India. Most of the people here are dependent mainly on the restaurant food as they do not have time to cook for themselves.

With such an overwhelming demand of restaurants it has therefore become important to study the demography of a location. What kind of a food is more popular in a locality. Do the entire locality loves vegetarian food. If yes then is that locality populated by a particular sect of people for e.g. Jain, Marwaris, Gujaratis who are mostly vegetarian. This kind of analysis can be done using the data, by studying the factors such as

• Approx Price of food.
• Location of the restaurant.
• Theme based restaurant or not.
• Which locality of that city serves those cuisines with maximum number of restaurants.
• The needs of people who are striving to get the best cuisine of the neighborhood.
• Is a particular neighborhood famous for its own kind of food.

"Just so that you have a good meal the next time you step out"

3.4 Data Cleaning and Preparation

The dataset was initially sourced as a CSV file containing 17 columns, which was imported into Power BI Desktop for further analysis. The data underwent a series of transformations and cleaning steps in the Query Editor to ensure its accuracy and usability for analysis.


Initially Applied Steps in the Query Editor

1. Handling Missing Values:

Null values were identified and removed from the dataset to avoid any discrepancies in the analysis.

2. Cleaning the "rate" Column:

The "rate" column, representing the overall rating of restaurants, had various formats including "3.5/5", blank values, "-", and "NEW". Multiple replace operations were performed to standardize the ratings, remove the "/5" suffix, and handle missing values appropriately. The column data type was then converted to decimal for consistency.
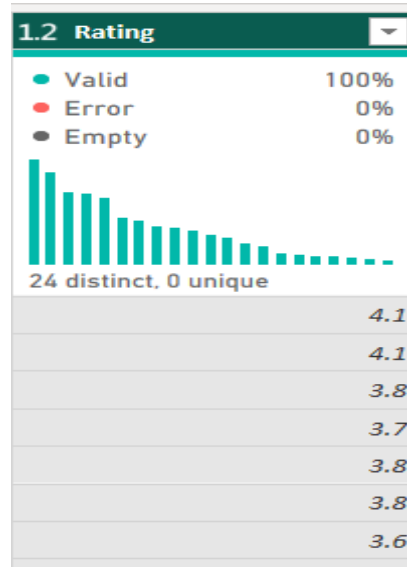
Applied Steps on Rating Column

3. Handling Special Characters in Restaurant Names:

Some restaurant names contained special characters like "é" which were replaced with other characters like "ƒ", "Â", and "©". Multiple replace operations were conducted on the "name" column to standardize the characters and ensure uniformity.
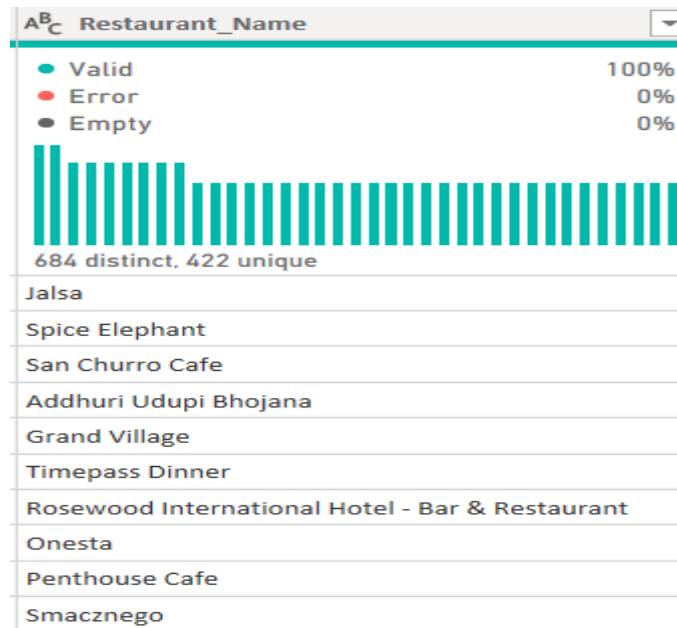
Applied Steps on Restaurant_Name Column

4. Analyzing and Removing Noise from Columns:

Each of the 17 columns was analyzed individually to identify and remove any noise or anomalies present in the data. For example, the "phone" column contained junk values, which were removed using regular expressions. Redundant information, such as the phrase "two people" accompanying the cost in the "approx cost" column, was also removed to clean the data.

5. Converting Data Types:

The columns were converted to appropriate data types such as string, number, and categorical to facilitate accurate analysis. For instance, the "reviews_list" column, initially read as a string, was converted to a list of tuples to extract and analyze customer reviews effectively.

By performing these cleaning and preparation steps, the dataset was refined and standardized, ensuring its integrity and reliability for subsequent analysis in Power BI Desktop.

3.5 Tools and Technologies Used

The primary tool utilized for this project is Microsoft Power BI, a powerful business analytics and data visualization platform. Power BI offers a range of features and capabilities that enable users to analyze data, create interactive dashboards, and generate insightful reports. The following highlights the key aspects of Power BI used in this project:

- Data Import and Transformation:

Power BI provides seamless connectivity to various data sources, including CSV files, databases, and online services. The data from the CSV file containing the Zomato restaurant dataset was imported into Power BI Desktop for analysis.

The Query Editor in Power BI was leveraged to perform data transformation tasks such as cleaning, filtering, and shaping the data. Operations such as handling missing values, standardizing ratings, and removing noise from columns were conducted in the Query Editor.

- Data Modeling and Analysis:

Power BI offers robust data modeling capabilities, allowing users to create relationships between different data tables and define measures and calculated columns.

Data analysis tasks such as calculating average ratings, identifying top-performing restaurants, and analyzing customer engagement were performed using Power BI's built-in analytical functions and DAX language.

- Visualization and Reporting:

One of the key features of Power BI is its rich set of visualization options, including bar charts, line charts, pie charts, maps, and more. These visualizations enable users to represent data in an intuitive and insightful manner.

Interactive dashboards and reports were created in Power BI Desktop to showcase the analysis results. Users can interact with the visualizations, apply filters, and drill down specific data points to gain deeper insights.

4: EXPLORATORY DATA ANALYSIS

Exploratory Data Analysis (EDA) is a critical phase in the data analysis process that involves examining and understanding the dataset to uncover patterns, trends, and relationships. In the context of analyzing Zomato's restaurant dataset, EDA provides valuable insights into various aspects of restaurant performance, customer engagement, satisfaction, cost, market trends, reviews, and ratings. I have divided my reports to provide the following these key areas:

I.   Restaurant Performance:

EDA reveals insights into the overall performance of restaurants based on factors such as ratings, votes, and popularity.

Analysis of ratings distribution and average ratings across different restaurant types and neighborhoods provides insights into customer preferences and satisfaction levels.

II. Customer Engagement:

EDA examines customer engagement metrics such as online orders, table bookings, and customer footfall across different locations.

Analysis of customer engagement patterns helps identify high-traffic areas, popular dining times, and preferences for online versus offline dining experiences.

III. Customer Satisfaction:

EDA explores factors influencing customer satisfaction, such as food quality, service speed, and overall dining experience.

Analysis of customer reviews and ratings highlights common themes and sentiments expressed by customers, enabling restaurants to address areas for improvement and enhance satisfaction levels.

IV. Cost & Market Trend Analysis:

EDA investigates the relationship between restaurant pricing, customer spending patterns, and market trends.

Analysis of the distribution of approximate costs for two people and changes in pricing over time provides insights into customer affordability and market dynamics.

V.   Reviews & Ratings Analysis:

EDA examines the distribution of customer ratings, frequency of reviews, and correlations between ratings and other factors.

Analysis of popular dishes, cuisines, and menu items based on customer preferences and reviews helps restaurants tailor their offerings to meet customer expectations.

Overall, EDA plays a crucial role in uncovering valuable insights from the Zomato restaurant dataset, enabling data-driven decision-making and strategic planning. By understanding restaurant performance, customer behavior, satisfaction levels, cost dynamics, and market trends, businesses can optimize their operations, enhance customer experiences, and stay competitive in the dynamic food service industry.

5: RESTAURANTS PERFORMANCE ANALYSIS
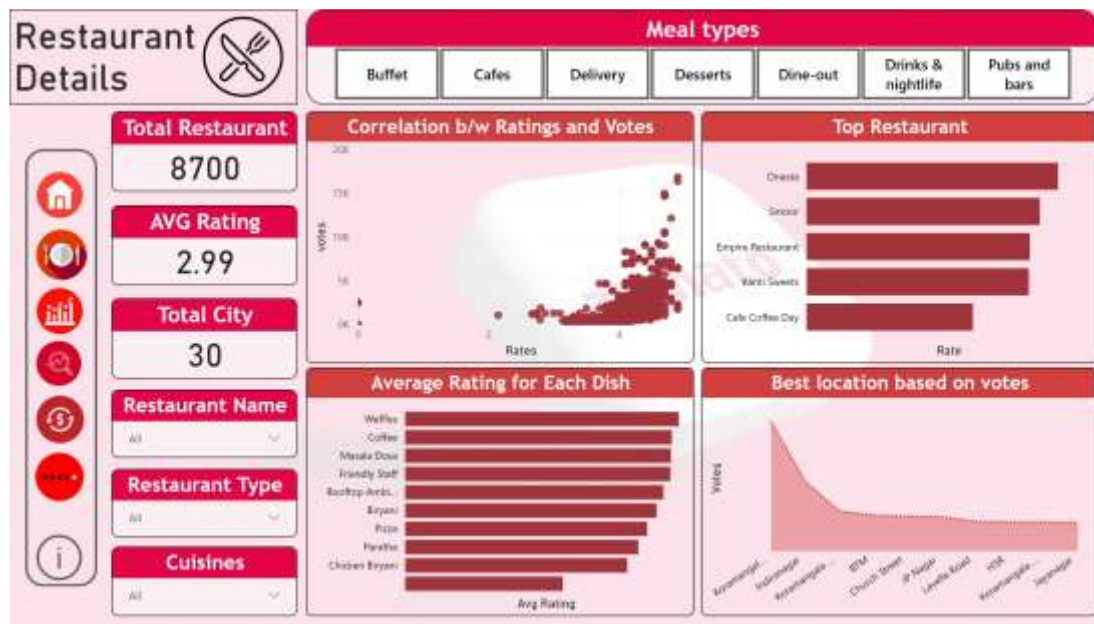
Dashboard 1 - Restaurant Details

Let's dive into the details of the "Restaurant Details" dashboard:

Number of Restaurants: The dataset contains a total of 8,700 restaurants.

Average Rating: Across all restaurants, the average rating is 2.99.

Total City: Restaurant are located in 30 different cities.

Slicer: In the report, there are three slicers designed to help you filter and search for specific information about restaurants.

- The first slicer, Restaurant Name, allows you to search for and select a particular restaurant by its name.
- The second slicer, Restaurant Type, lets you filter restaurants based on their type, such as cafes, fast food, or fine dining. This is useful if you want to compare data for different types of restaurants.
- he third slicer, Cuisines, enables you to search for restaurants based on the type of cuisine they offer, like Italian, Chinese, or Mexican. You can use these slicers individually or in combination to narrow down the data in the report, making it easier to find the information you need. For instance, you can select Italian cuisine and fast food type to see all Italian fast food restaurants, or simply choose a specific restaurant by name to view its details.

5.1 Top Restaurant Chains

Visualization Type: Use a **Bar Chart** to display the top restaurant chains by average rating.

Top 5 restaurants include "Oresta", "Samoor", "Empire Restaurant", "Kanti Sweets" and "Cafe Coffee Day".

Conclusion: By visualizing the top restaurant chains by rating, you can identify which chains consistently receive high customer satisfaction. This analysis helps in understanding the quality and popularity of different restaurant chains, providing valuable insights for strategic decisions, marketing, and operational improvements.

5.2 Top Location

Visualization Type: Use an **Area Chart** to visualize the trend of votes across locations. This helps in showing the cumulative impact of votes across locations, providing a clear view of which locations have consistently higher votes.

Analysis Top 5 location include Koramangala, Indiranagar, Koramangala 1st Block, BTM, Church Street etc.

Conclusion: By visualizing the top locations by votes using an area chart, you can effectively communicate the distribution and concentration of customer votes across different locations, providing actionable insights for strategic planning and decision-making.

5.3 Average Ratings for Each Dish

Visualization Type: Use a Bar chart to identify the dishes that have the highest average ratings, providing insights into customer preferences and helping restaurants optimize their menus.

Analysis of Ratings for Each Dish:
Waffles: Rated around 3.9
Coffee: Rated around 3.8
Masala Dosa: Rated around 3.8
Rooftop Ambience: Rated around 3.7

Conclusion: By visualizing Average Ratings for Each Dish using bar chart, we can pivotal for restaurants aiming to tailor their offerings to customer preferences, ultimately enhancing the dining experience and increasing customer loyalty.

5.4 Correlation b/w Ratings and Votes

Visualization Type: Use a **Scatter Plot** to visualize the relationship between ratings and votes.

Analysis: From the scatter plot, you might observe a positive correlation between ratings and votes, indicating that as the number of votes increases, the ratings tend to be higher. This suggests that customer engagement, as measured by votes, is

linked to better perceived restaurant quality. Restaurants with few votes but high ratings could benefit from increased customer engagement efforts to further boost their visibility and reputation. Conversely, restaurants with many votes but low ratings may need to address quality or service issues to improve customer satisfaction.

6: CUSTOMER ENGAGEMENT
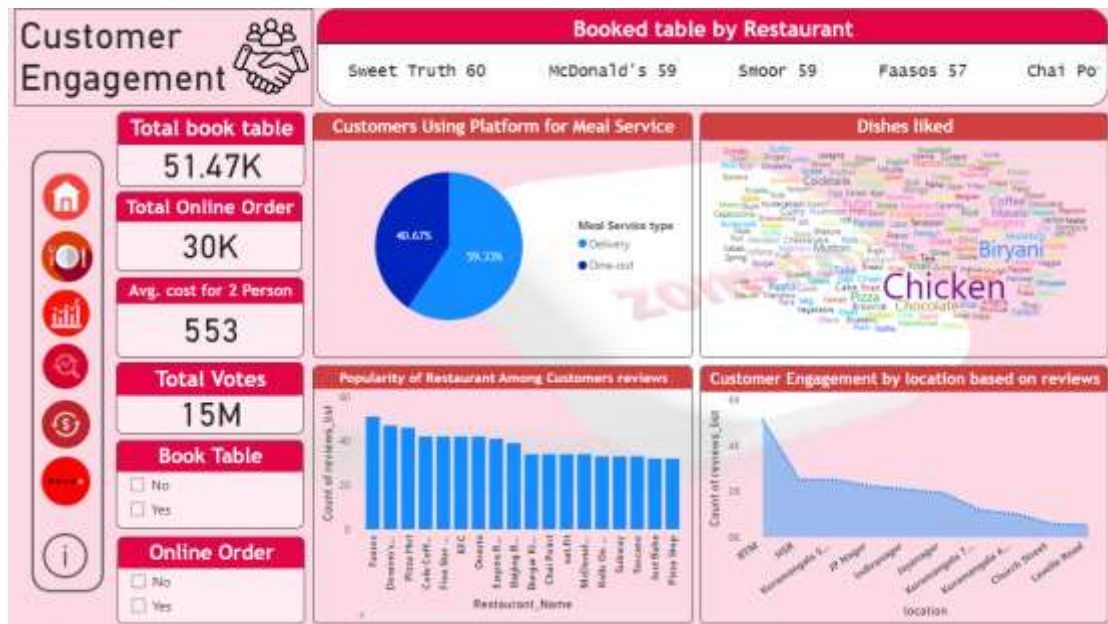
Dashboard 2 - Customer Engagement

Let's dive into the details of the "Customer Engagement" dashboard:

Total Book Table: The Restaurant contents 51.47K book table option available.
Total Online Order: The Restaurant contents 30K online order option available.
Average Cost for 2 People: The Avg. cost for 2 Person is around 553, which likely represents the average cost for two people in the local currency.
Total Votes: Total Votes 15M, which suggesting a voting feature with 15 million votes receive by customer.

Slicer: In the report, there are three slicers designed to help you filter and search for specific option to 'Book Table' and 'Online Order,' where users can select either 'Yes' or 'No.'

Scrollbar section: It displays booked tables by restaurant provides an overview of the reservations made at various dining establishments.

6.1 Customers Using Platform for Meal Service

Visualization: Use a **Pie Chart** to visualize the proportion of meal service type based on book table.

Analysis: **Delivery**: It covers approximately 59.33%

Dine-out: It covers approximately 40.47%

Conclusion: From the pie chart, you might observe that a significant majority of customers are using the platform for food delivery, with a smaller proportion using it for dining out. This insight indicates a strong preference for food delivery among your customer base. As a result, Zomato might focus more on enhancing the food delivery experience, expanding delivery zones, and optimizing delivery times. Conversely, for

the dining out service, Zomato could explore partnerships with more restaurants, offer exclusive dining deals, or improve the booking process to attract more customers.

6.2 Popularity of Restaurant Among Customers reviews

Visualization: Use a **Bar Chart** to show the popularity of each restaurant based on the number of reviews and average rating.

Analysis: Restaurants Fassos which having 51 reviews.

Conclusion: Restaurant which has the highest average rating, suggesting high customer satisfaction. This information helps Zomato identify key restaurants that attract and satisfy customers, providing insights for marketing, partnerships, and service improvements. By focusing on highly-rated and frequently reviewed restaurants, Zomato can enhance customer satisfaction and loyalty.

6.3 Customer Engagement by location based on reviews

Visualization: Use an **Area Chart** to show the volume of customer engagement (number of reviews) by location.

Analysis: Location BTM which having 5097 reviews.

Conclusion: From the area chart, you might observe that Location BTM has the highest number of reviews, indicating high customer engagement in that area. Location HSR also shows significant engagement, while Location Lavelle Road has relatively lower engagement. This insight can help Zomato focus on areas with high engagement for marketing campaigns and identify areas with lower engagement to investigate potential causes and opportunities for improvement.

6.4 Word Cloud Analysis of dishes liked

Analysis: Word cloud representing sentiments related to different dishes. The word "Chicken" stands out prominently, suggesting it's a frequently liked or mentioned dish. Other words include "Pizza," "Burgers," "Pasta," and "Sushi." The varying sizes and colors indicate different levels of preference. Overall, it reflects people's preferences for various food items.

7: CUSTOMER SATISFACTION
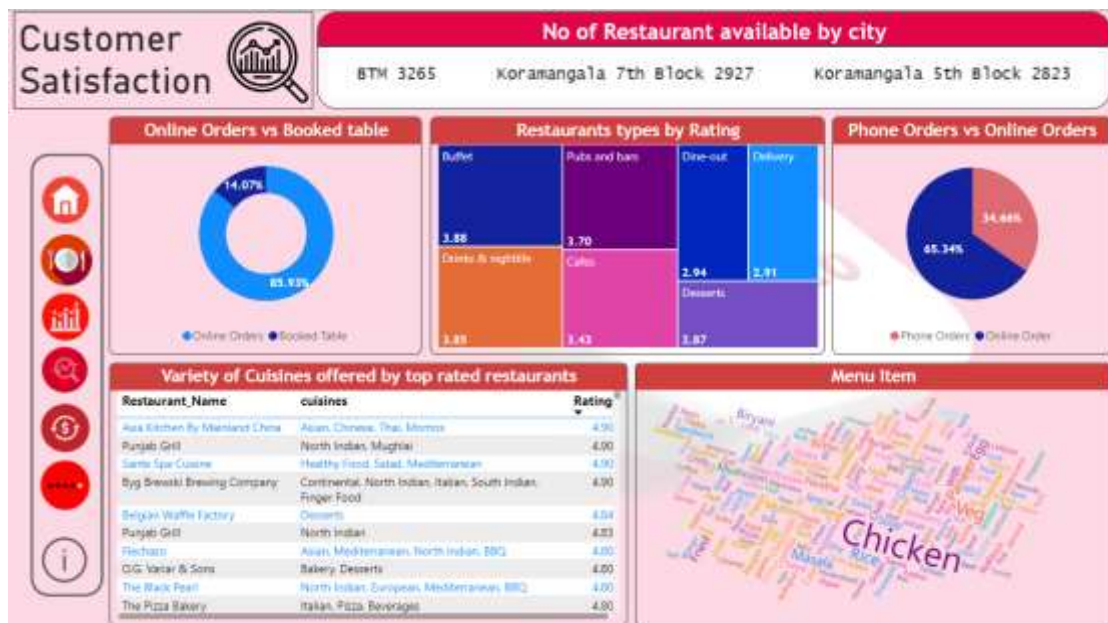
Dashboard 3 - Customer Satisfaction

Let's dive into the details of the "Customer Satisfaction" dashboard:

Scrollbar section: It displays No. of restaurant available by city that provides an detail of the reservations made at various dining establishments.

7.1 Online Orders vs Booked table

Visualization: Use a **Pie Chart** to show the proportion of online orders vs. booked tables.

Analysis: Online Orders: It covers approximately 85.93%
Booked Table: It covers approximately 14.07%.

Conclusion: Zomato can use this insight to enhance the online ordering experience, perhaps by introducing new features, offering exclusive online deals, or optimizing the delivery process. Conversely, understanding the booked table transactions can help improve the dining experience, offer loyalty programs for dine-in customers, or streamline the reservation process.

7.2 Restaurants types by Rating

Visualization: Use a **Treemap** to show the distribution of restaurant types by their average rating.

Analysis:
Buffet: Average rating of 3.88

Drinks & nightlife: Average rating of 3.85

Pubs and bars: Average rating of 3.70

Cafes: Average rating of 3.43

Dine-out: Average rating of 2.94

Delivery: Average rating of 2.91

Desserts: Average rating of 2.87

Conclusion: By analyzing the distribution of restaurant types by rating, Zomato can make data-driven decisions to enhance customer satisfaction and optimize their business strategy.

7.3 Phone Orders vs Online Orders

Visualization: Use a **Pie Chart** to show the proportion of phone orders vs. online orders.

Analysis: Online Orders: It covers approximately 65.34%

Booked Table: It covers approximately 34.66%

Conclusion: Zomato can use this insight to enhance the online ordering experience, perhaps by introducing new features, offering exclusive online deals, or optimizing the delivery process. Conversely, understanding the phone order transactions can help improve the phone order experience, offer loyalty programs for phone-order customers, or streamline the phone order process.

7.4 Word Cloud Analysis of Menu Item

From the word cloud, you might observe that "Chicken" and "Paneer" appear the largest, indicating these are the most frequently ordered items. This insight can help Zomato focus on these popular items for marketing campaigns, special offers, or ensuring adequate supply.

7.5 Variety of Cuisines offered by top rated restaurants

Visualization: Use a Table to display the variety of cuisines offered by top-rated restaurants along with rating.

Analysis:

Asia Kitchen By Mainland China: Offers Asian, Chinese, Thai, and Momos cuisines with a rating of 4.90.
Punjabi Grill Cuisine: Features North Indian and Salad cuisines, also rated at 4.90.

8: COST & POPULARITY ANALYSIS

Dashboard 4 - Cost & Popularity Analysis

Let's dive into the details of the "Cost & Popularity Analysis" dashboard:

Scrollbar section: It displays No. of restaurant by city that providing clarity on how to explore restaurants based on city.

Slicer: Slicer of approx cost helps users understand the purpose of the slicer and how they can utilize it to filter restaurants based on their preferred cost range.

Gauge Visualization: This gauge visualizes the average cost amount of restaurants, currently set at 559. The gauge provides a quick visual reference for assessing the overall cost amount.

8.1 Famous Cuisines Analysis

Visualization: Use **bar chart** illustrates the popularity of different cuisines among restaurants. The height of each bar corresponds to the frequency of each cuisine in the dataset, highlighting the cuisines most offered by restaurants.

Analysis:

North Indian Cuisine: Ranked highest in popularity.

South Indian Cuisine: Second in popularity.

Biryani: Holds a significant position.

Bakery Dessert: Also popular.

Fast Food: Among the top choices.

Conclusion: The bar chart effectively visualizes the frequency of each cuisine, allowing users to identify the most famous cuisines among restaurants.

8.2 Restaurants service type by city Analysis

Visualization Type: Use a Table chart to display the service types offered by restaurants in each city.

Conclusion: Analysis of the table can provide insights into the distribution of service types across different cities. It can help in understanding the dining preferences of customers in each city and informing strategic decisions related to restaurant operations.

8.3 Restaurants by Avg. cost Analysis

Visualization Type: A bar chart can effectively display the average cost of dining at restaurants across different cities.

Conclusion: Analyzing the average cost of dining at restaurants in various cities can offer insights into the affordability of dining options in each location. This information can be valuable for budget-conscious consumers and can also guide restaurant owners in setting menu prices and targeting specific market segments.

9: REVIEWS & RATINGS ANALYSIS

Dashboard 5 - Reviews & Ratings Analysis

Let's dive into the details of the "Reviews & Ratings Analysis" dashboard:

Scrollbar section: It displays No. of restaurant by approx. cost for two person that providing clarity on its purpose and how to interact with it to explore restaurants based on cost.

Slicer: Slicer of rating helps users select range of the rating and filter out best restaurants based on their rating.

Gauge Visualization: This gauge visualizes the average rating of restaurants, currently set at 2.9. The gauge provides a quick visual reference for assessing the overall rating score.

9.1 Total Restaurants by Rating

Visualization: Use a Bar Chart to display the distribution of total restaurants by rating.

Conclusion: Analysis of the bar chart can offer insights into the overall rating distribution of restaurants, aiding in decision-making processes related to restaurant selection and assessment.

9.2 Rating by Approx cost

Visualization: Use a Scatter Plot to display the relationship between ratings and approximate cost.

Conclusion: Analysis of the scatter plot can offer insights into how ratings vary with respect to different approximate cost ranges, helping stakeholders make informed decisions related to restaurant selection and pricing strategies.

9.3 Total Restaurants by Rating

Visualization: Use a Bar Chart to display the distribution of total restaurants by rating.

Conclusion: Analysis of the bar chart can offer insights into the overall rating distribution of restaurants, aiding in decision-making processes related to restaurant selection and assessment.

CONCLUSION

Analyzing Zomato Bengaluru restaurant data can provide valuable insights into the dining preferences, trends, and dynamics of the city's food scene. Here's a structured conclusion based on potential findings:

➢ Cuisine Preferences: The analysis reveals that Bengaluru have diverse culinary tastes, with a strong inclination towards Indian, Chinese, and Italian cuisines. This indicates a multicultural palate and the availability of a wide range of dining options catering to different preferences.

➢ Price Sensitivity: Bengaluru consumers show varying degrees of price sensitivity when it comes to dining out. While there is a significant demand for budget-friendly options, there is also a sizable market for premium dining experiences, suggesting a segmented market where restaurants can cater to different income groups.

➢ Popular Locations: The data highlights certain areas in Bengaluru that are particularly popular for dining out, such as Koramangala, Indiranagar, and MG Road. Understanding these hotspots can be valuable for restaurant owners looking to establish or expand their presence in the city.

➢ Rating vs. Cost Analysis: A deeper dive into the relationship between restaurant ratings and cost can uncover interesting insights. It may reveal whether higher-priced restaurants consistently offer better quality and service or if there are hidden gems among budget-friendly options that punch above their weight in terms of customer satisfaction.

➢ Customer Reviews and Sentiment Analysis: Analyzing customer reviews can provide qualitative insights into factors driving customer satisfaction or dissatisfaction. Identifying common themes or issues mentioned in reviews can help restaurants address pain points and improve overall customer experience.

➢ Trends Over Time: Tracking changes in consumer preferences and restaurant performance over time can reveal emerging trends and patterns in the Bengaluru food industry.

➢ Recommendations for Restaurants: Based on the analysis, actionable recommendations can be provided to restaurants to improve their business performance. This may include suggestions for menu diversification, pricing strategies, marketing initiatives, or operational improvements to enhance overall customer satisfaction and profitability.

In conclusion, analyzing Zomato Bengaluru restaurant data provides valuable insights into the city's dining landscape, helping stakeholders make informed decisions to meet consumer demands and drive business growth in this dynamic and competitive market.