

Zomato Final

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📂 Class	Project Portfolio PDF

Zomato Market Analysis Report

Project Description

Business Problem

Zomato is a multinational restaurant aggregator and food delivery company. As my first assignment in the onboarding process I was given several test datasets to analyze the business performance of brands and venues registered in the service.

Description

Our analysis utilizes 2 tables from the Zomato data archive:

- **orders:** Detailed customer order information including order IDs, timestamps, product details, and transaction values
- **restaurant:** Restaurant partner information including name, location, and cuisine type

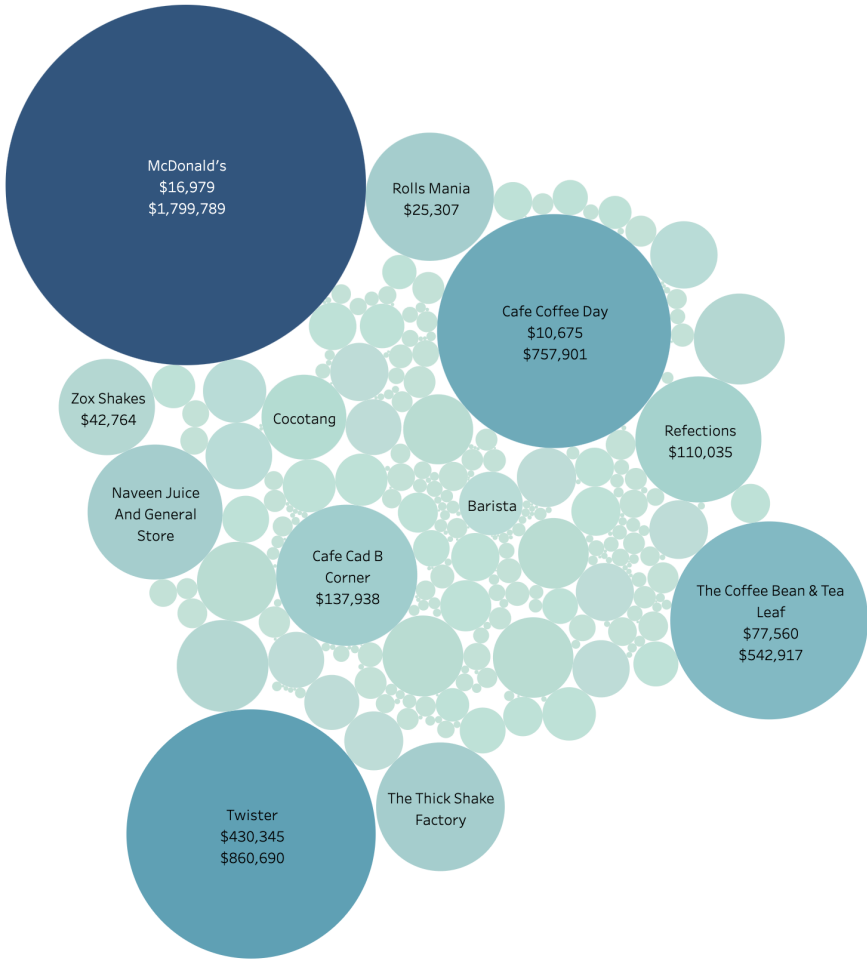
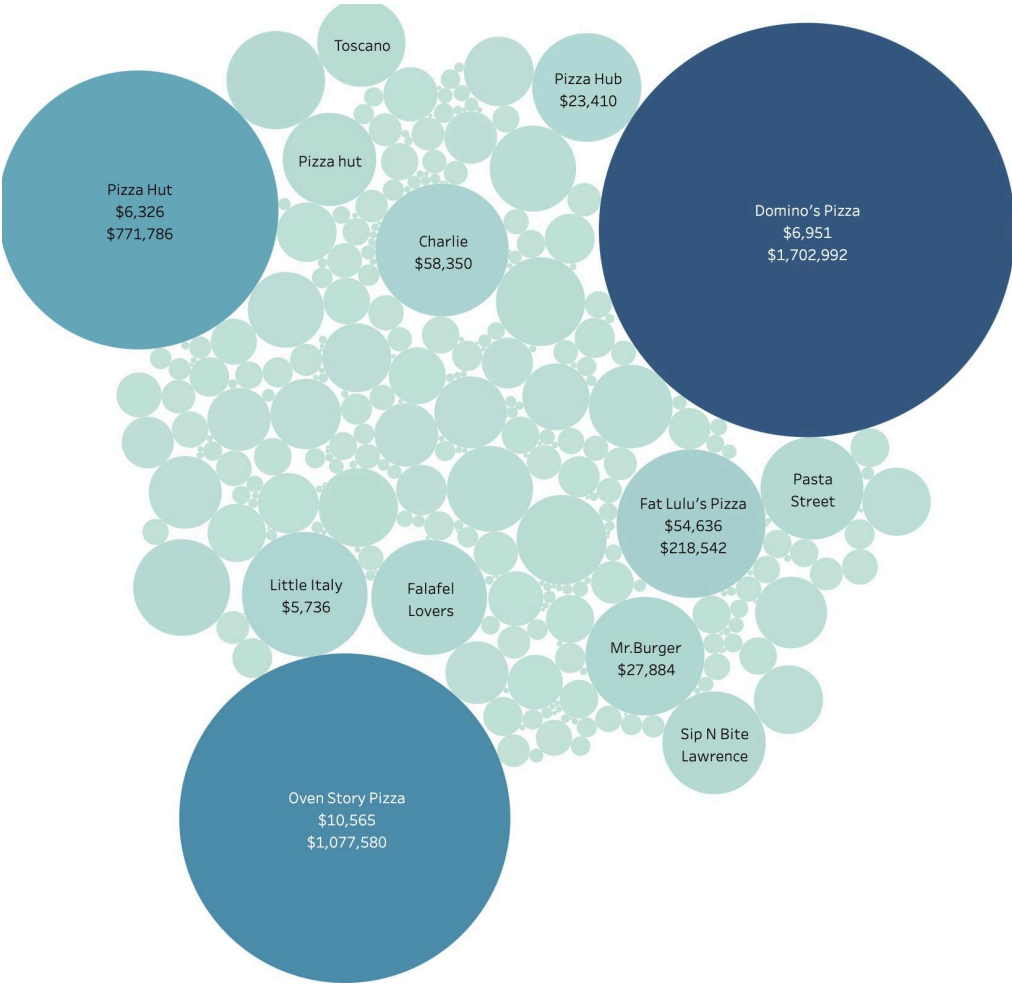
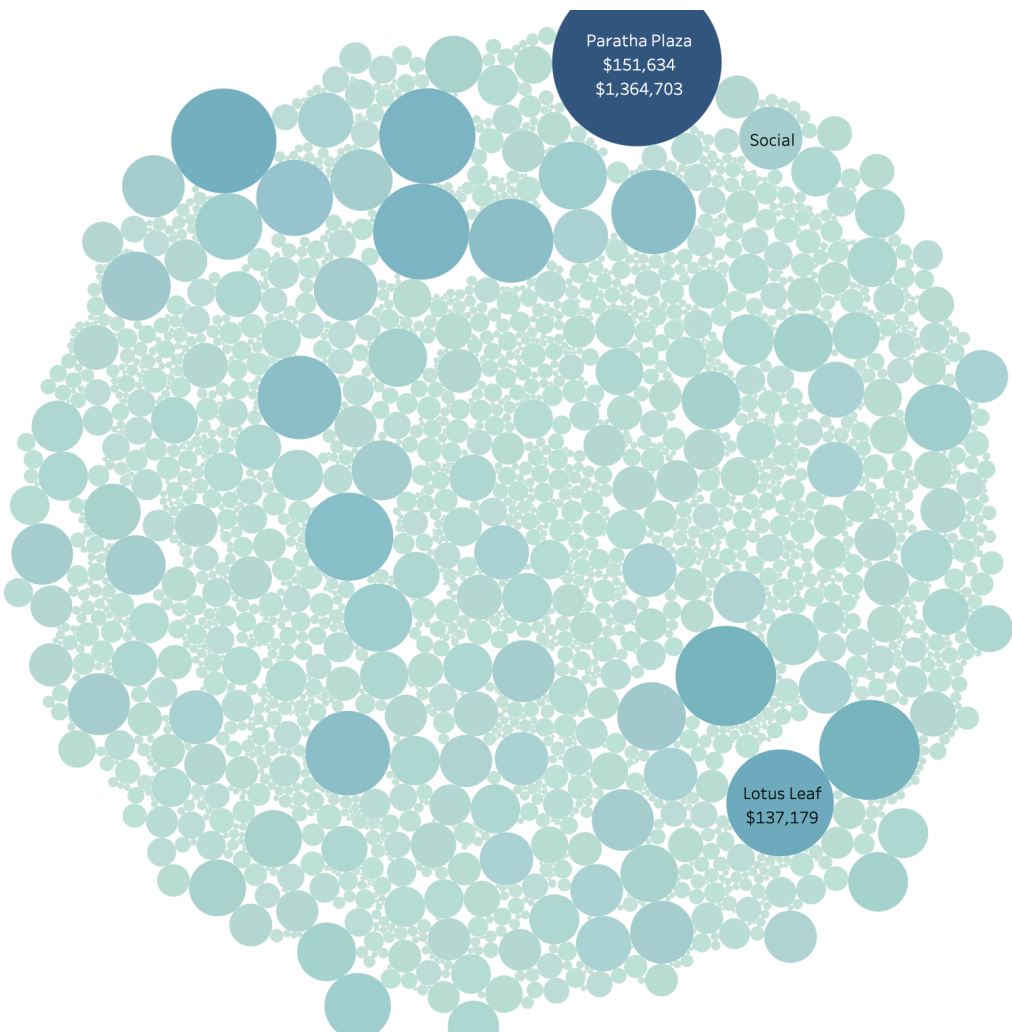
Table Relationship



Executive Summary

Our analysis of Zomato's sales data reveals key opportunities to drive growth by optimizing how brands and their individual venues interact with our platform and product offerings.

Paratha Plaza is the most profitable brand of the Northern Indian cuisine segment, which is our largest and most diverse segment, as well as the most profitable. However, most brands in this segment currently have low-value purchasing patterns, presenting a significant opportunity for growth. (Right Image is Northern Indian, left, Pizza)

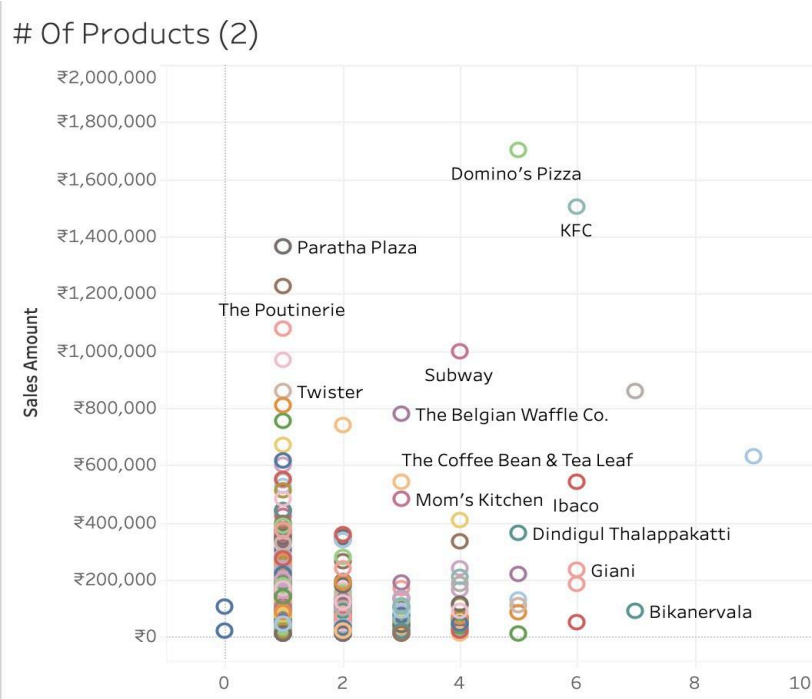
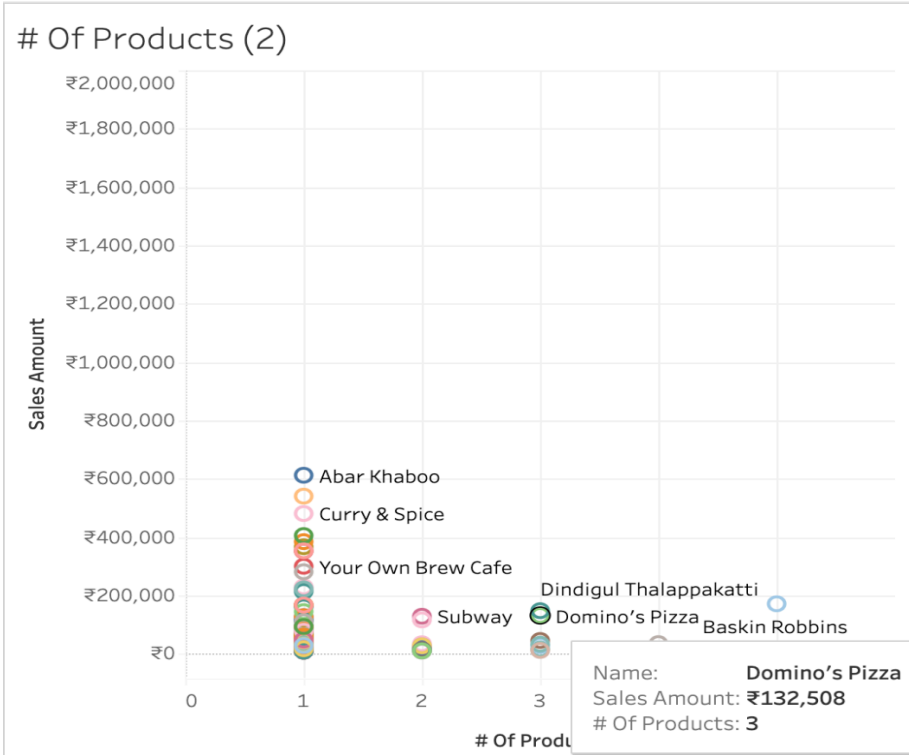


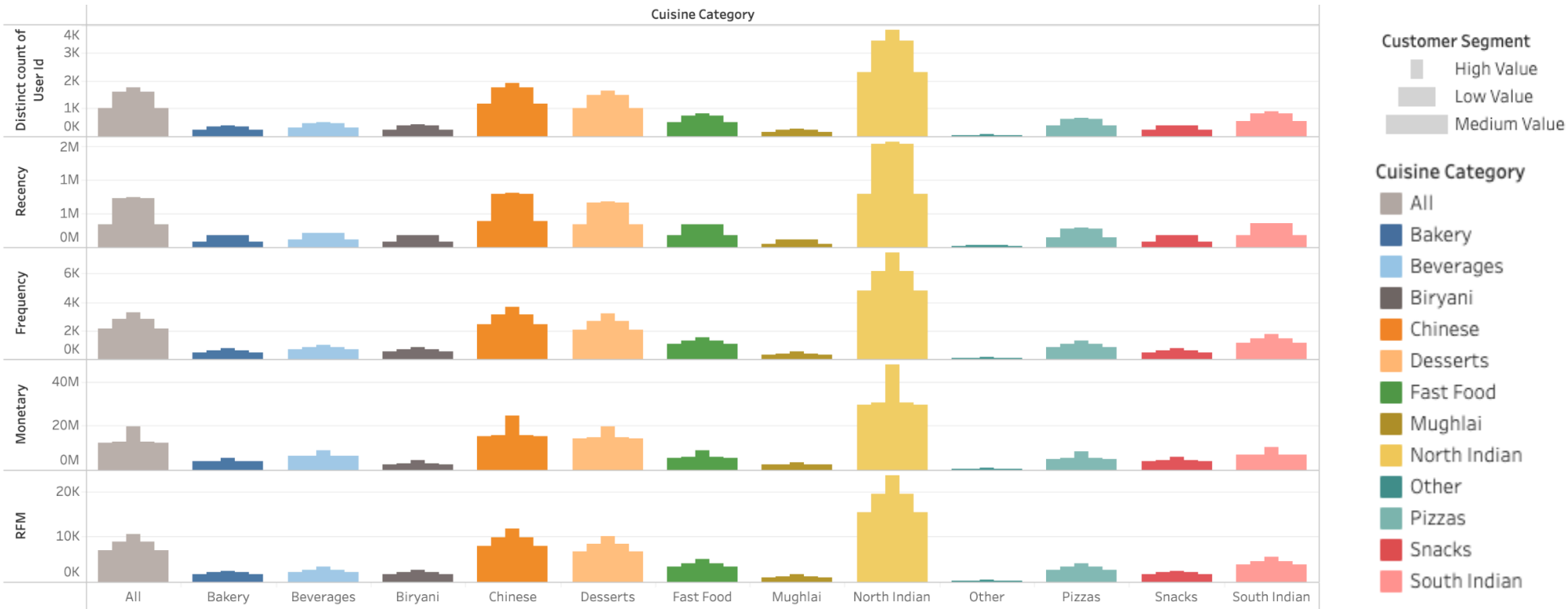
The data shows Zomato saw strong and consistent sales growth with Domino's as Domino's began to purchase a wider variety of products. If more brands in the Northern Indian segment were offered an expanded product selection, Zomato could potentially see *significantly* improved sales growth in not just that segment, but the company as a whole. Increasing the variety of options available to brands,(especially Northern Indian), and encouraging diversity in their purchases could significantly improve sales in this segment.

McDonald's, while a major buyer, typically purchases only one beverage product. Expanding the range of products available to McDonald's presents a clear opportunity to increase sales in the beverages, although beverages isn't one of the most valuable segments, it dominates the beverages category, and has many venues in the region.

Domino's is similar to McDonald's in the way it dominates its cuisine segment, and it has many venues. The difference lies in the linearity between its increasing sales trajectory, and increase in product variety. While Pizza and Beverages aren't as profitable as Northern Indian, Chinese, or Deserts, those categories are doing well and don't have as much potential. Pizza and Beverages is dominated by 1-3 major brands, with countless venues. This presents an opportunity for a streamlined strategy that could achieve rapid results.

Domino's Pizza 01/01/2018 - Through the last quarter of 2019





Total Sales

₹168,208,054.00

Average Sales per Customer

₹12,366.42

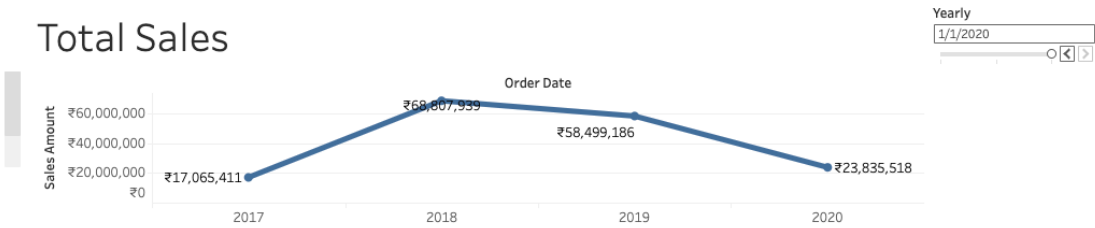
Average Order Value

₹6,413.55

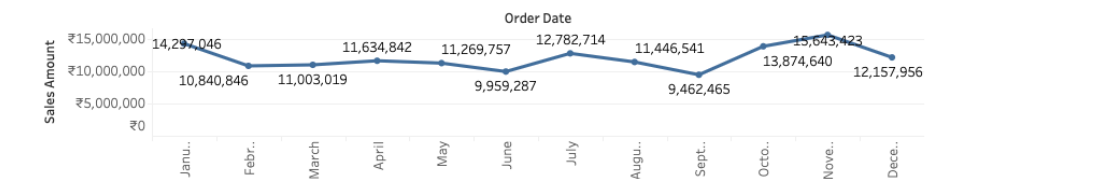
Number Of Orders

₹26,227.00

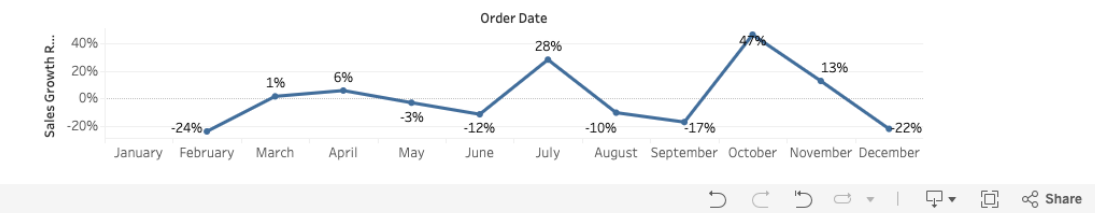
Total Sales



Total Sales



Sales Growth YoY



View on Tableau Public

Details

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Recommendations

- Increase inventory variety, specifically in the Pizza, Beverages, and Northern Indian Cuisine segments, and run a marketing campaign for these new products.
- To go a step further, I could run a sentiment analysis on top performing products provided by other food distributors to help inform inventory variety growth.
- Offer Northern Indian brands expanded product variety, leveraging the proven growth trajectory seen with Domino's.
- In the Northern Indian segment, campaign focus should be broadly focused on all brands. Because this cuisine segment is populated by so many brands, with so much potential to grow, if even a quarter of those brands achieved growth akin to Domino's, this segment alone has potential to turn the company around
- Launch targeted retention programs for high-value, high-frequency brands like McDonalds and Pizza Hut (the runner up in the Pizza cuisine segment by offering bulk sales discounts and novel product purchase discounts to maximize their lifetime value, and encourage inventory variety growth.
- Develop return buyer discount programs with personalized offers to shift mid value brands, (the vast majority of your customer base), into high value segments.
- Specifically focus
- Monitor venue level trends to identify local growth opportunities and tailor promotional strategies accordingly.

By focusing on expanding product variety and encouraging brands to diversify their purchases, Zomato and its partners can drive stronger sales and unlock new growth across the platform.

How to Use My Dashboard

- **Choose a Cuisine Category:** Use the cuisine category filter to analyze specific types of food, as grouped by my calculated field.
- **Adjust the Year or Quarterly filters:** between 2018, 2019, 2020
- **Adjust the Customer Segment filter:** To organize the visuals by segments of their RFM score
- **Use the Wildcard filter** by typing in whichever venue ID or Company name to zero in on a specific target (depending on the visual)

Orders Table `orders.csv`

- **Order Date:** Date when the order was placed
- **Currency:** Currency used for the transaction
- **R Id:** Restaurant identifier for each order
- **Sales Amount:** Total value of the order
- **Sales Qty:** Quantity of items in the order

Restaurant Table `restaurant.csv`

- **Id:** Unique restaurant identifier
- **Name:** Restaurant name
- **Address:** Restaurant address
- **City:** City where the restaurant is located
- **Cost:** cost of individual inventory items
- **Cuisine:** Type of cuisine offered
- **Menu:** link to menu
- **Lic No:** Restaurant license number
- **Link:** URL or reference link for the restaurant
- **Country:** Country where the restaurant operates
- **Cuisine Filter:** Filtered or grouped cuisine type
- **Customer Segment:** Customer group classification
- **Time Filter:** Time-based filter for analysis (e.g., quarter, month)
- **User Id:** User identifier (for mapping orders to users)
- **Rating:** Customer rating for the restaurant
- **Rating Count:** Number of ratings receive

RFM Methodology & Customer Segmentation

RFM Scoring

Our RFM (Recency, Frequency, Monetary) analysis segments customers according to the following criteria:

Recency: Days since the user's most recent order (as of June 25, 2020)

- Score 5: 𐄂 100 days
- Score 4: 101–200 days
- Score 3: 201–300 days
- Score 2: 301–400 days
- Score 1: 𐄂 400 days

Frequency: Number of orders per user

- Score 4: 6+ orders
- Score 3: 4–5 orders
- Score 2: 2–3 orders
- Score 1: 1 ord

Monetary: Total sales amount per user

- Score 5: 𐄂 100,000 INR
- Score 4: 20,000–99,999 INR
- Score 3: 5,000–19,999 INR
- Score 2: 1,000–4,999 INR
- Score 1: 𐄂 1,000 INR

Calculated Fields Formulas (continued)

Recency Score

```
IF [Recency] <= 100 THEN 5
ELSEIF [Recency] <= 200 THEN 4
ELSEIF [Recency] <= 300 THEN 3
ELSEIF [Recency] <= 400 THEN 2
ELSE 1
END
```

Frequency Score

```
IF [Frequency] <= 6 THEN 4
ELSEIF [Frequency] <= 4 THEN 3
ELSEIF [Frequency] <= 2 THEN 2
ELSE 1
END
```

Monetary Score

```
IF [Monetary] <= 100000 THEN 5
ELSEIF [Monetary] <= 20000 THEN 4
ELSEIF [Monetary] <= 5000 THEN 3
ELSEIF [Monetary] <= 1000 THEN 2
ELSE 1
END
```

$([\text{Recency Score}]) + ([\text{Frequency Score}]) + ([\text{Monetary Score}])$

Customer segmentation

```
{
  FIXED [User Id] :
    IF MIN([RFM]) <= 10 THEN "High Value"
    ELSEIF MIN([RFM]) <= 5 THEN "Medium Value"
    ELSE "Low Value"
  END
}
```

Monetary Specialized Formulas

Monetary Bin (Logarithmic): Used for segmentation, with bins based on the log of total spend

Monetary bin

```
IF LOG([Monetary] + 1) <= 10 THEN 5
ELSEIF LOG([Monetary] + 1) <= 9 THEN 4
ELSEIF LOG([Monetary] + 1) <= 8 THEN 3
ELSEIF LOG([Monetary] + 1) <= 7 THEN 2
```

The **"Monetary bin"** section uses a series of conditional statements to assign a bin value (from 1 to 5) based on the logarithm of the "Monetary" value plus one. Higher log values correspond to higher bins, which likely represent higher monetary amounts.

Monetary Log Filter

$\text{LOG}([\text{Monetary}] + 1)$

The "**Monetary log**" section simply shows the transformation formula:

$\text{LOG}(\square \text{Monetary}] + 1)$

This is used to normalize or scale the monetary values, making them easier to compare and bin.

In summary, this approach first transforms the monetary value using a logarithm, then assigns it to a bin based on its range, which helps categorize customers by their spending in a more balanced way

RFM Score: Calculated as the sum of Recency, Frequency, and Monetary scores for each user

Customer Segmentation

Customers are segmented by RFM score:

- **High Value:** RFM score 𐄂 10
- **Medium Value:** RFM score 5–9
- **Low Value:** RFM score 𐄂 5

RFM Analysis Findings

- Frequency and Monetary scores show strong correlation; high-spending customers are typically frequent buyers as well
- Most users have a low recency score, indicating they have not made purchases recently
- High-value customers (RFM 𐄂 10) represent a small percentage of our user base but account for a disproportionately large share of revenue
- The largest customer groups fall within the lowest monetary bins, but the highest spenders drive most sales
- Strategic initiatives such as expanding inventory, launching loyalty and referral programs, and implementing personalized offers present significant opportunities to increase repeat purchases

Key Insights

- **The Golden 18%:** Customers spending over 100,000 INR annually represent just 18% of our customer base but drive 45% of total sales.
- **Northern Indian Cuisine Potential:** The Northern Indian cuisine segment presents the greatest opportunity: by broadening the inventory options available and running targeted campaigns to encourage Northern Indian brands to diversify their purchases, Zomato can unlock substantial sales growth through this segment alone!
 1. Expand product variety available to venues (regional specialties, complementary items).
 2. Create "starter packs" of recommended products for Northern Indian venues.
 3. Implement tiered loyalty programs to incentivize higher-value purchases from these venues.
 4. Offer bundled discounts on initial and novel product purchases.
- **Replicate the Domino's Model:** Zomatos success with Domino's proves product variety drives sales.
- **Maximize McDonald's Beverage Dominance:** McDonald's venues are only buying one beverage product! Expand their options with seasonal drinks, premium coffees, and healthier alternatives. Suggestion: Partner with McDonald's to develop exclusive Zomato beverage bundles.
- **Focus on Venue-Level Trends:** Monitor what's selling at the venue level and tailor promotions accordingly. Offer incentives to venues based on their local demand.
- **Prioritize High-Value Venues:** Launch a "Golden 18%" VIP program to reward top-spending venues with bulk discounts and exclusive offers.

By focusing on these strategies, we can transform low-value brands and their venues into high-value partners, driving sustainable revenue growth for Zomato.

Cuisine Segment Calculated Field

```
IF CONTAINS([Cuisine], "North Indian") THEN "North Indian"
ELSEIF CONTAINS([Cuisine], "South Indian") THEN "South Indian"
ELSEIF CONTAINS([Cuisine], "Chinese") THEN "Chinese"
ELSEIF CONTAINS([Cuisine], "Fast Food") THEN "Fast Food"
ELSEIF CONTAINS([Cuisine], "Desserts") THEN "Desserts"
ELSEIF CONTAINS([Cuisine], "Bakery") THEN "Bakery"
ELSEIF CONTAINS([Cuisine], "Pizzas") THEN "Pizzas"
ELSEIF CONTAINS([Cuisine], "Mughlai") THEN "Mughlai"
ELSEIF CONTAINS([Cuisine], "Ice Cream") THEN "Desserts"
ELSEIF CONTAINS([Cuisine], "Biryani") THEN "Biryani"
ELSEIF CONTAINS([Cuisine], "Beverages") THEN "Beverages"
ELSEIF CONTAINS([Cuisine], "Snacks") THEN "Snacks"
ELSEIF
CONTAINS([Cuisine], "American") OR
CONTAINS([Cuisine], "Andhra") OR
CONTAINS([Cuisine], "Arabian") OR
CONTAINS([Cuisine], "Asian") OR
CONTAINS([Cuisine], "Barbecue") OR
CONTAINS([Cuisine], "Bengali") OR
CONTAINS([Cuisine], "Burgers") OR
CONTAINS([Cuisine], "Chaat") OR
CONTAINS([Cuisine], "Chettinad") OR
CONTAINS([Cuisine], "Coastal") OR
CONTAINS([Cuisine], "Continental") OR
CONTAINS([Cuisine], "European") OR
CONTAINS([Cuisine], "Grill") OR
CONTAINS([Cuisine], "Healthy Food") OR
CONTAINS([Cuisine], "Home Food") OR
CONTAINS([Cuisine], "Hyderabadi") OR
CONTAINS([Cuisine], "Indian") OR
CONTAINS([Cuisine], "Indonesian") OR
CONTAINS([Cuisine], "Italian") OR
CONTAINS([Cuisine], "Italian-American") OR
CONTAINS([Cuisine], "Japanese") OR
CONTAINS([Cuisine], "Juices") OR
CONTAINS([Cuisine], "Kebabs") OR
CONTAINS([Cuisine], "Kerala") OR
CONTAINS([Cuisine], "Lebanese") OR
CONTAINS([Cuisine], "Malaysian") OR
CONTAINS([Cuisine], "Malwani") OR
CONTAINS([Cuisine], "Maharashtrian") OR
CONTAINS([Cuisine], "Mexican") OR
CONTAINS([Cuisine], "Nepalese") OR
CONTAINS([Cuisine], "Oriental") OR
CONTAINS([Cuisine], "Pan-Asian") OR
CONTAINS([Cuisine], "Parsi") OR
CONTAINS([Cuisine], "Pastas") OR
CONTAINS([Cuisine], "Punjabi") OR
CONTAINS([Cuisine], "Rajasthani") OR
CONTAINS([Cuisine], "Salads") OR
CONTAINS([Cuisine], "Seafood") OR
CONTAINS([Cuisine], "Street Food") OR
CONTAINS([Cuisine], "Sushi") OR
CONTAINS([Cuisine], "Sweets") OR
CONTAINS([Cuisine], "Tandoor") OR
CONTAINS([Cuisine], "Thai") OR
CONTAINS([Cuisine], "Thalis") OR
CONTAINS([Cuisine], "Tibetan")
THEN "All"
ELSE "Other"
END
```


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