

# Zomato Final

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📁 Class	Project Portfolio PDF

## Zomato Market Analysis Report

### Project Description

#### Business Problem

Zomato aims to enhance business performance by leveraging data-driven insights from sales patterns across our restaurant partners and customer base. Our goal is to identify actionable intelligence that can inform growth strategies, improve customer retention, and drive operational improvements across the platform.

#### Executive Summary

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

Paratha Plaza is part of the Northern Indian cuisine segment, which is our largest and most diverse. However, most brands in this segment currently have low-value purchasing patterns (limited product variety).

The data shows that 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 offered or purchased an expanded product selection, Zomato could potentially see sales growth in that segment. Increasing the variety of options available to brands and encouraging diversity in their purchases could significantly improve sales in this segment.

McDonald's, while a major buyer, typically purchases only one product. Expanding the range of products available to McDonald's presents a clear opportunity to increase their sales.

Recommendations:

- Encourage Northern Indian cuisine brands to expand their product variety, leveraging the proven growth trajectory seen with Domino's.
- Launch targeted marketing and retention programs for high-value, high-frequency brands to maximize their lifetime value.
- Support partners in developing loyalty programs and personalized offers to move more brands into higher-value purchasing segments.
- Advise restaurant partners to streamline menus and focus on top-performing items to boost sales efficiency.
- Monitor city-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.

### Description of Filters and Parameters


#### Key Features and Filters

Quarterly parameter

Cuisine Group Parameter

Quarterly

4/1/2020



### Yearly Parameter

Yearly

1/1/2019

◀ ▶

**Wildcard filter:** to search for a specific brand

Name

### Customer Segment Parameter

A screenshot of a dropdown menu. The header is "Customer Segment..." with a downward arrow. The menu is open, showing three options: "High Value", "Low Value", and "Medium Value". "High Value" is highlighted with a light blue background.

**Cuisine Group**

- Bakery
- Bakery
- Beverages
- Biryani
- Chinese
- Desserts
- Fast Food
- Ice Cream
- Mughlai
- North Indian
- Other
- Pizzas
- Snacks
- South Indian
- All

## How to Use My Dashboard

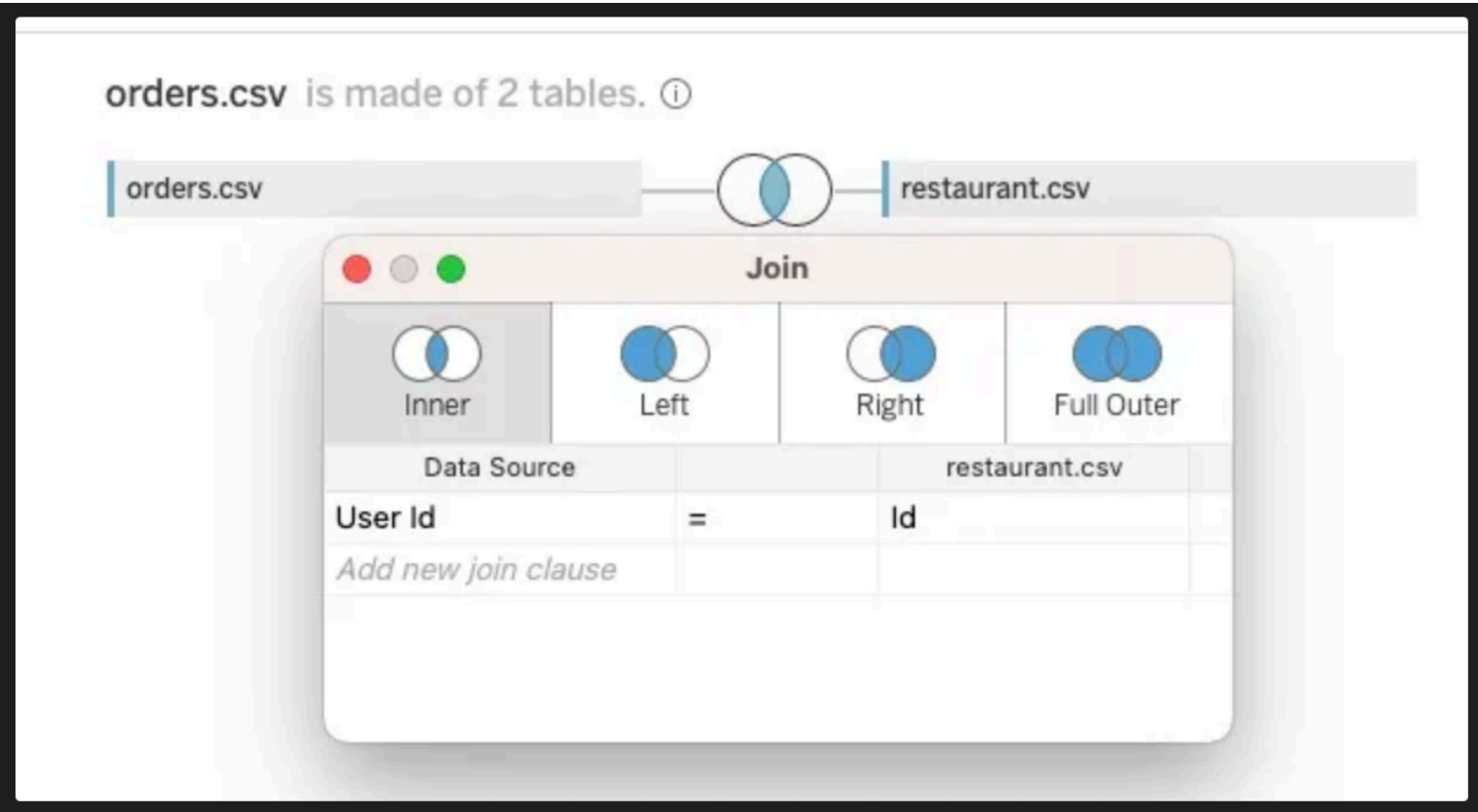
1. **Choose a Cuisine Category:** Use the cuisine category filter to analyze specific types of food, as grouped by my calculated field.
2. **Adjust the Year or Quarterly filters:** between 2018, 2019, 2020
3. **Adjust the Customer Segment filter:** To organize the visuals by segments of their RFM score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

## Data 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



Key Variables

- **user\_id**: Unique customer identifier
- **order\_frequency**: Number of orders per user during the analysis period
- **total\_spent**: Total INR spent by each user
- **average\_order\_value**: Mean value of a user's orders
- **segment**: Customer segment label based on RFM score
- **first\_order\_date**: Date of user's first order
- **last\_order\_date**: Date of user's most recent order

Orders Table ( **orders.csv** )

- **Order Date**: Date when the order was placed
- **Currency**: Currency used for the transaction
- **F1**: (Field as per your data, could be a unique order identifier)
- **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**: Average cost for two people (or as defined in your data)
- **Cuisine**: Type of cuisine offered
- **Menu**: Menu details or description
- **Lic No**: Restaurant license number
- **Link**: URL or reference link for the restaurant
- **Country**: Country where the restaurant operates
- **Cuisine Category**: Broader cuisine classification
- **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 received

## 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)

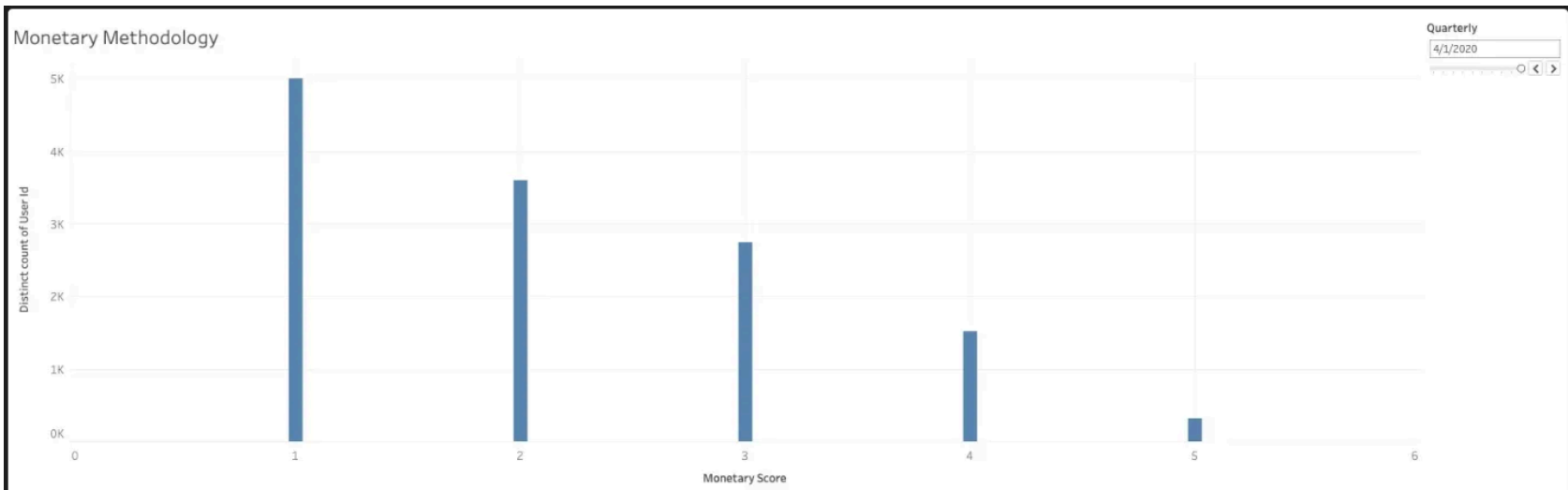
- Score 5:  $\leq 100$  days
- Score 4: 101–200 days
- Score 3: 201–300 days
- Score 2: 301–400 days
- Score 1:  $> 400$  days

**Frequency:** Number of orders per user

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

**Monetary:** Total sales amount per user

- Score 5:  $\geq 100,000$  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



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

### Monetary Specialized Formulas

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
```

ELSE 1  
END

Monetary log

LOG([Monetary] + 1)

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.

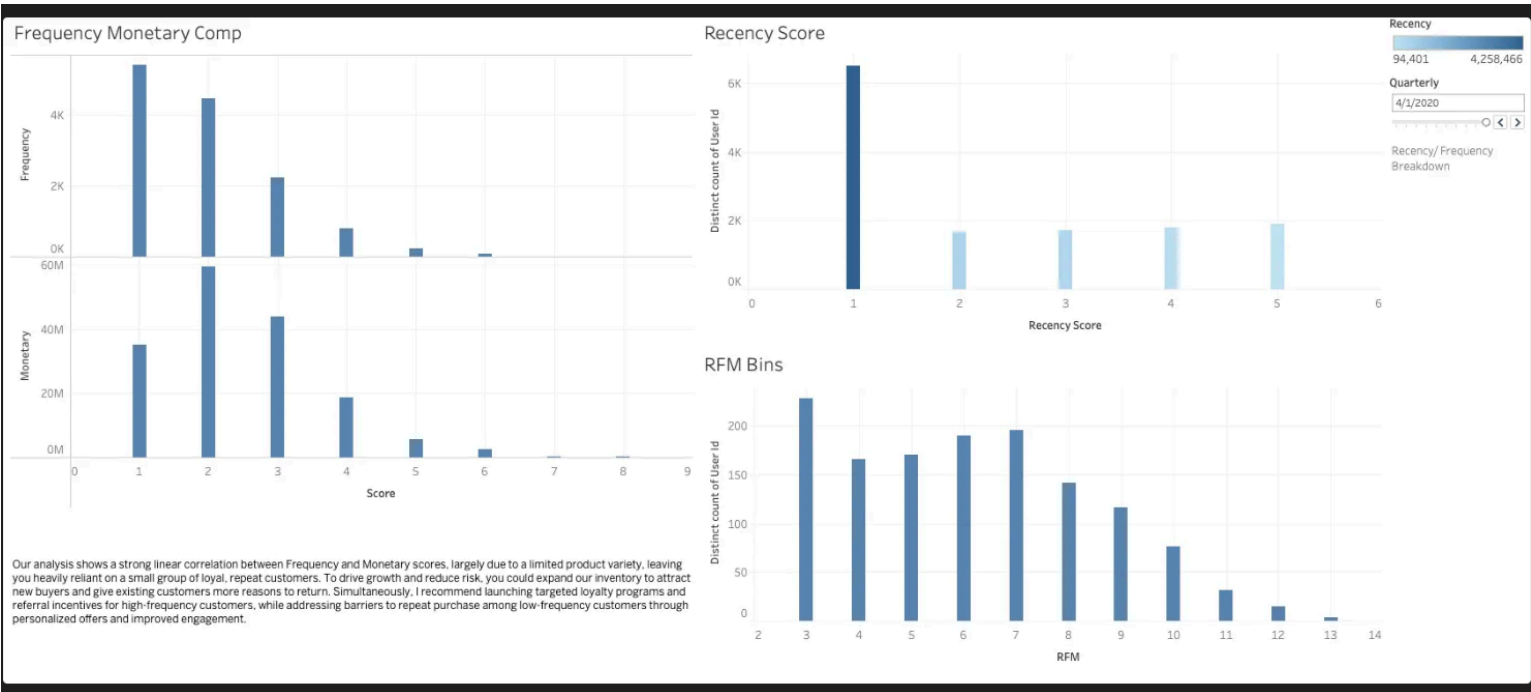
The **"Monetary log"** section simply shows the transformation formula:

LOG([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  $\geq 10$
- **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  $\geq 10$ ) 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

## Calulated Fields Formulas

Cuisine Group Formula

```
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
```

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
```

RFM Score

```
([Recency Score]) + ([Frequency Score]) + ([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  
}
```

# Key Insights

## Customer Segmentation Insights

### McDonald's

- Dominates beverage sales but focuses on just one product, missing out on potential growth from a broader selection.
- Most buyers are in the low or medium-value segments, presenting an opportunity to broaden the variety of Zomato's fast food oriented beverage inventory

### Paratha Plaza (Northern Indian Cuisine)

- Most brands are low value, engaging only once or infrequently, lagging behind the loyalty seen in other segments.
- Attracting more customers each month, but people are spending less per order, indicating room to boost how much each customer buys.



- The most populous segment, presenting the greatest opportunity for growth through loyalty programs and expanded product offerings.

## Domino's

- Growth is driven by brands that purchase a wide variety of products, resulting in a large share of total sales.
- Consistently achieves higher sales and revenue across their venues due to a wide product range.

## Key Insights 2: Sales & Customer Segmentation

### Sales Performance

- Domino's leads in both sales and order volume, showing steady growth.
- McDonald's is the top performer in the beverage segment, maintaining strong sales but with a limited product range.
- The Northern Indian cuisine segment stands out for its size and diversity, achieving high overall sales despite lower average sales per venue.

### Brand Segmentation

- Domino's growth is driven by brands that purchase a wide variety of products.
- McDonald's has most of its brands in the low and medium-value segments, indicating an opportunity to grow by expanding their product range.
- The Northern Indian cuisine segment is mostly made up of brands with low-value purchasing patterns, highlighting significant untapped potential.

### Actionable Opportunities

- Brands that purchase a broader variety of products from Zomato, like Domino's, consistently achieve higher sales growth.
- 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.
- For McDonald's, expanding the range of products they buy could also drive significant gains.
- Across all segments, focusing on helping brands move into higher-value purchasing patterns will drive sustainable sales growth and reduce volatility.

### Summary of Important Findings

- **The Golden 18%:** Customers spending over 100,000 INR annually represent just 18% of our customer base but drive 45% of total sales.
- **Product Range vs. Sales Impact:** Expanding the variety of products available to brands leads to greater sales growth over time.
- **Sales Growth Patterns:** Sales growth varies widely across both companies and cities, highlighting the importance of nurturing top customers.
- **Sales Analysis:** Consistent growth is fueled by a strong core of repeat brands and steady order volumes across their venues.