Zomato Final

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Class	Project Portfolio PDF

Zomato Market Analysis Report

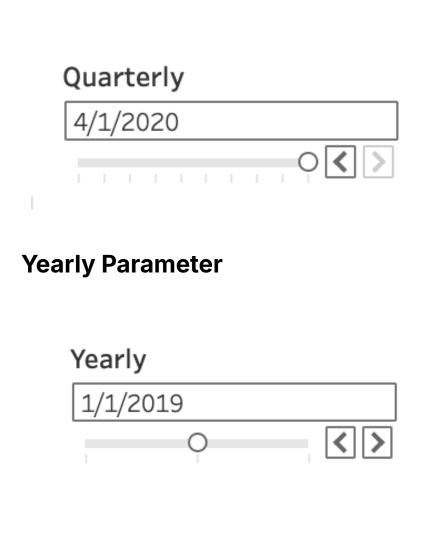
Description & Instructions

I've set up several filters and custom groupings to make the analysis more intuitive and flexible.

Key Features and Filters

Quarterly parameter

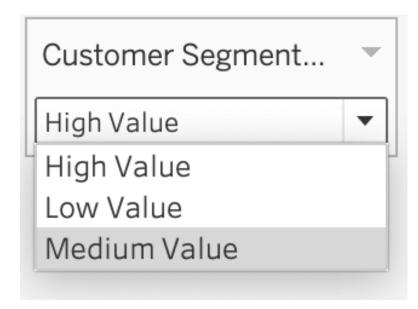
Cuisine Group Parameter



Wildcard filter: to search for a specific brand



Customer Segment Parameter



Cuisine Group



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)

Executive Summary

Our analysis of Zomato's restaurant and customer sales data reveals key opportunities to drive growth by focusing on how brands (which, in this context, are synonymous with customers) interact with our platform and product offerings.

Brands like Domino's Pizza, McDonald's, and Paratha Plaza each operate multiple venues and represent distinct segments. Paratha Plaza is part of the Northern Indian cuisine segment, which is not only the largest but also the most diverse. However, most brands in this segment currently have low-value purchasing patterns, meaning they buy a limited variety of products from Zomato's inventory.

The data shows that Domino's achieves strong and consistent sales growth by purchasing a wide variety of products. If more brands in the Northern Indian segment expanded their product selection—mirroring Domino's approach—they could potentially see similar sales growth. In other words, increasing the variety of options available and encouraging brands to diversify their purchases could unlock significant untapped potential in this segment.

McDonald's, while a major buyer, typically purchases only one product. By expanding the range of products McDonald's and similar brands buy, there is a clear opportunity to increase their sales.

Based on these insights, we recommend:

- Encouraging brands in the Northern Indian cuisine segment to expand their product variety, leveraging the proven growth trajectory seen with Domino's.
- Launching targeted marketing and retention programs for high-value, high-frequency brands to maximize their lifetime value.
- Supporting partners in developing loyalty programs and personalized offers to move more brands into higher-value purchasing segments.

- Advising restaurant partners to streamline menus and focus on topperforming items to boost sales efficiency.
- Monitoring 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.

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.

Analysis Focus

This project addresses the following key objectives:

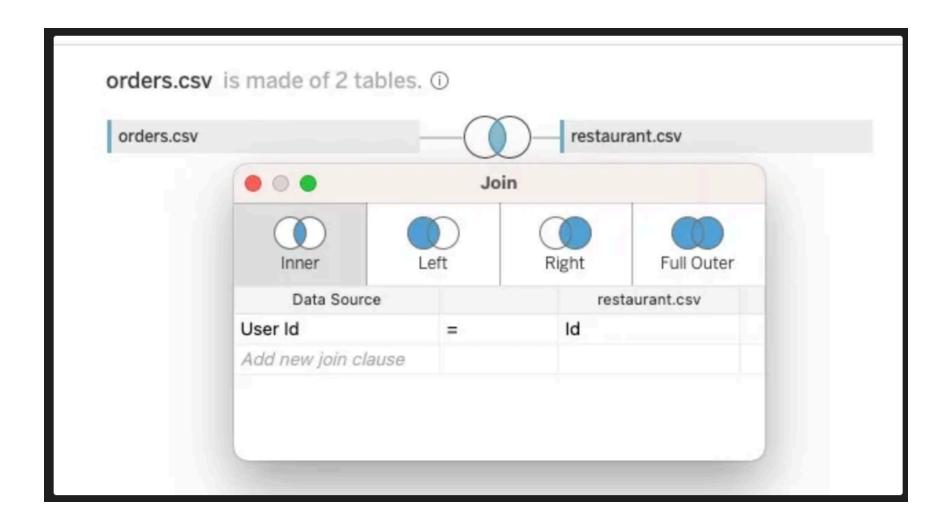
- Track and analyze sales and revenue trends over time
- Identify the highest-performing brands, cuisines, and cities by revenue
- Analyze sales metrics and revenue distribution patterns
- Assess how menu structure and customer spending segments impact overall sales performance
- Segment customers using RFM analysis to inform targeted marketing and loyalty strategies

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: ≤ 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

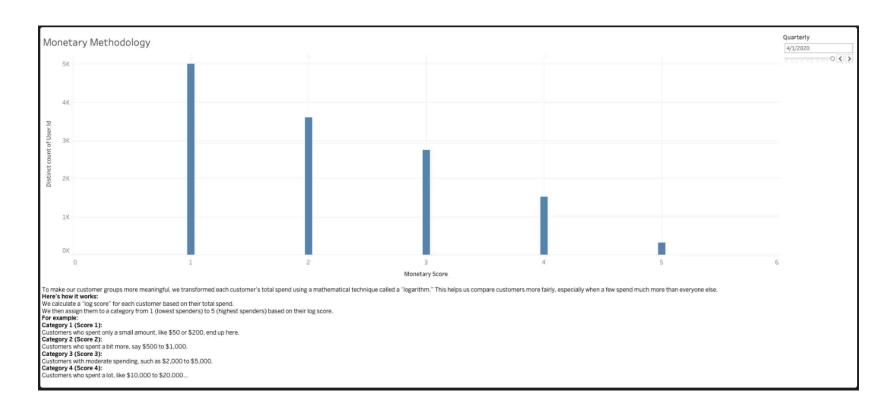
Score 5: ≥ 100,000 INR

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.

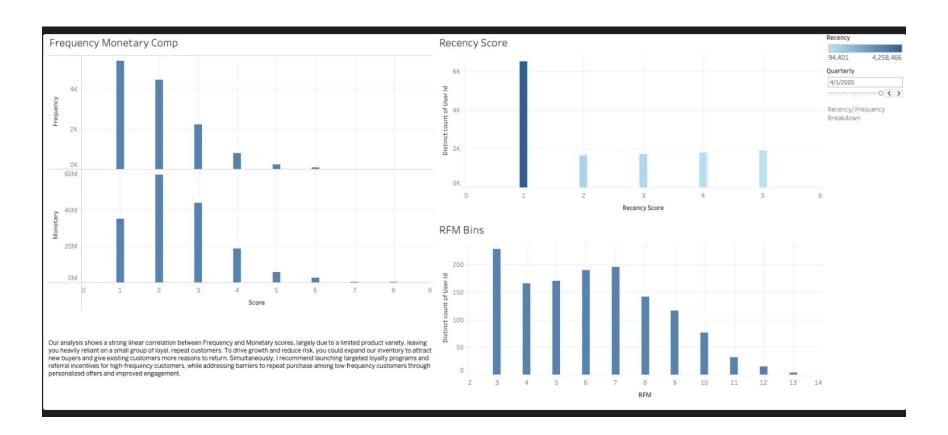
The "Monetary log" section simply shows the transformation formula:

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 ≥ 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

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 "AII"
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

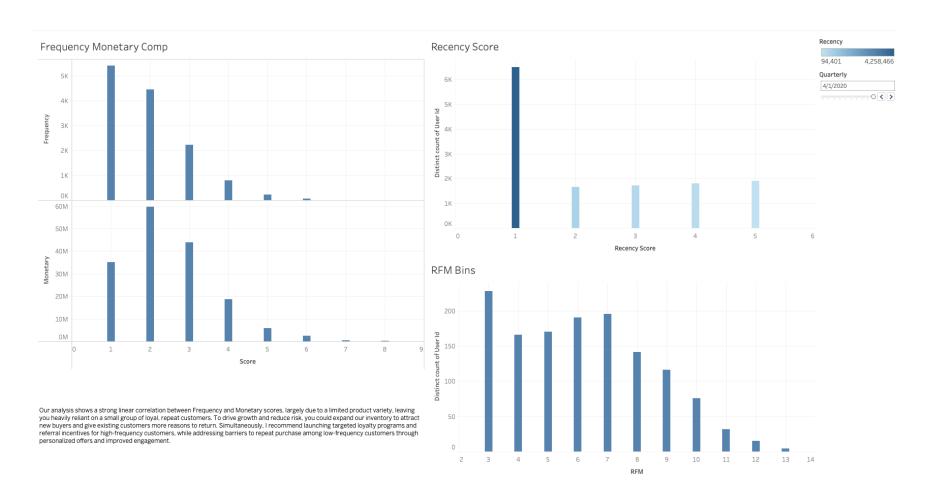
```
{ FIXED [User Id] :
    IF MIN([RFM]) >= 10 THEN "High Value"
    ELSEIF MIN([RFM]) >= 5 THEN "Medium Value"
    ELSE "Low Value"
    END
}
```

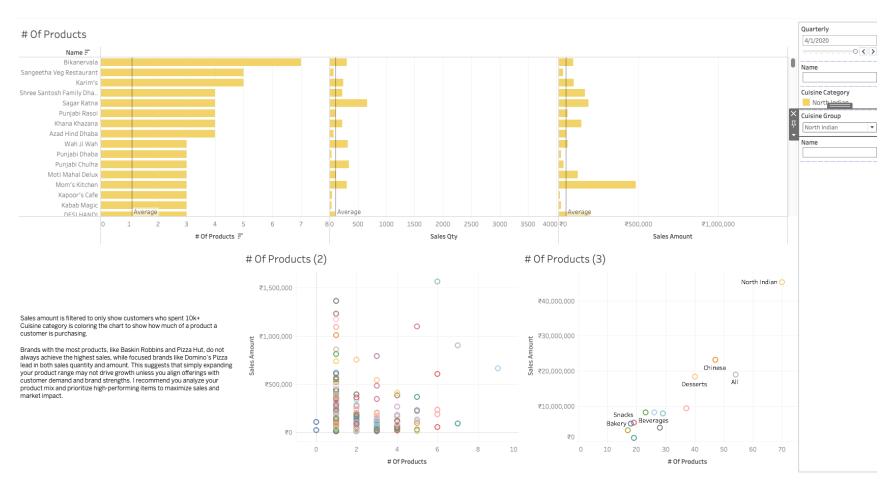
Key Insights

Customer Segmentation Insights

1. North Indian: Customer Patterns & Opportunities

Most North Indian customers buy infrequently and spend less, with only a small group making regular, high-value purchases. This means the segment relies heavily on a few brands. To grow, there's a chance to attract new buyers and encourage more frequent orders—perhaps by expanding the product range, offering personalized deals, or launching referral rewards for regulars.

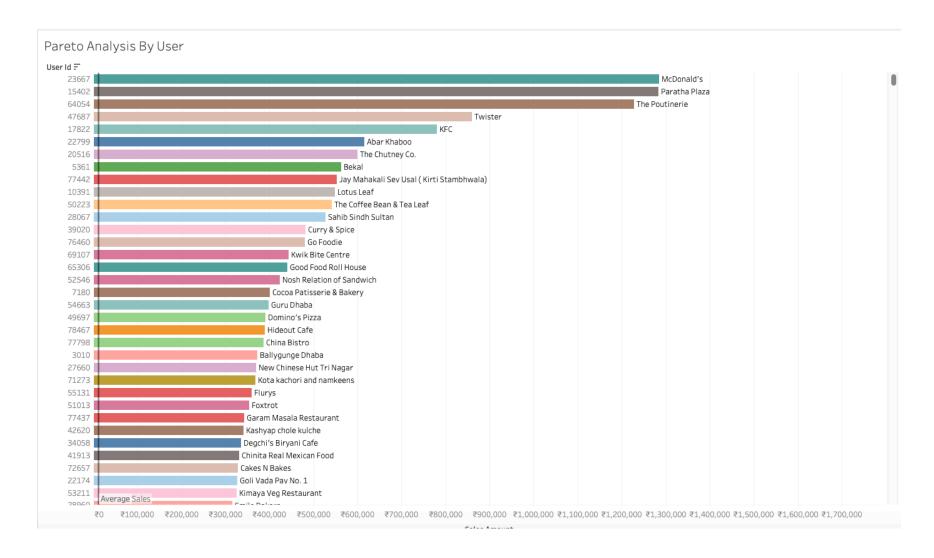




2. The Golden 18%: High-Value Customer Opportunity

Our analysis reveals that customers spending over 100,000 INR annually represent just 18% of our customer base but drive a remarkable 45% of total sales. These premium customers aren't just big spenders—they're our brand ambassadors. Their loyalty presents a significant opportunity to create tailored experiences that not only retain their business but potentially increase their lifetime value through exclusive offerings and personalized engagement.

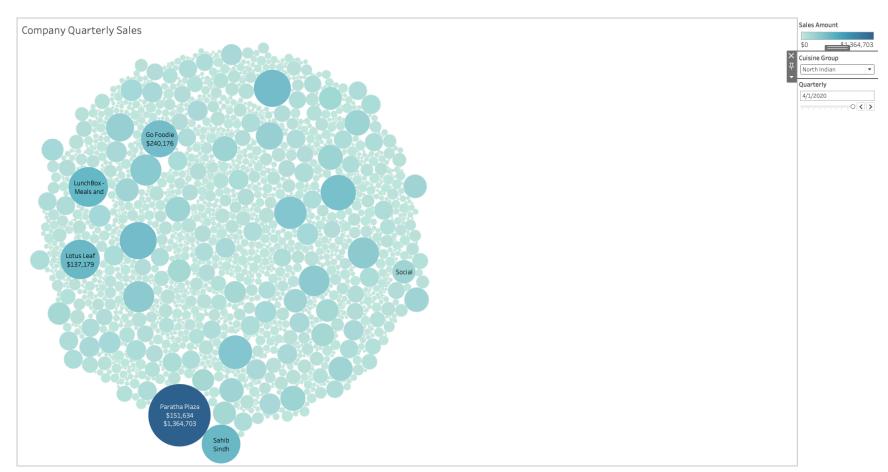
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3. The Loyalty Challenge in North Indian Brands

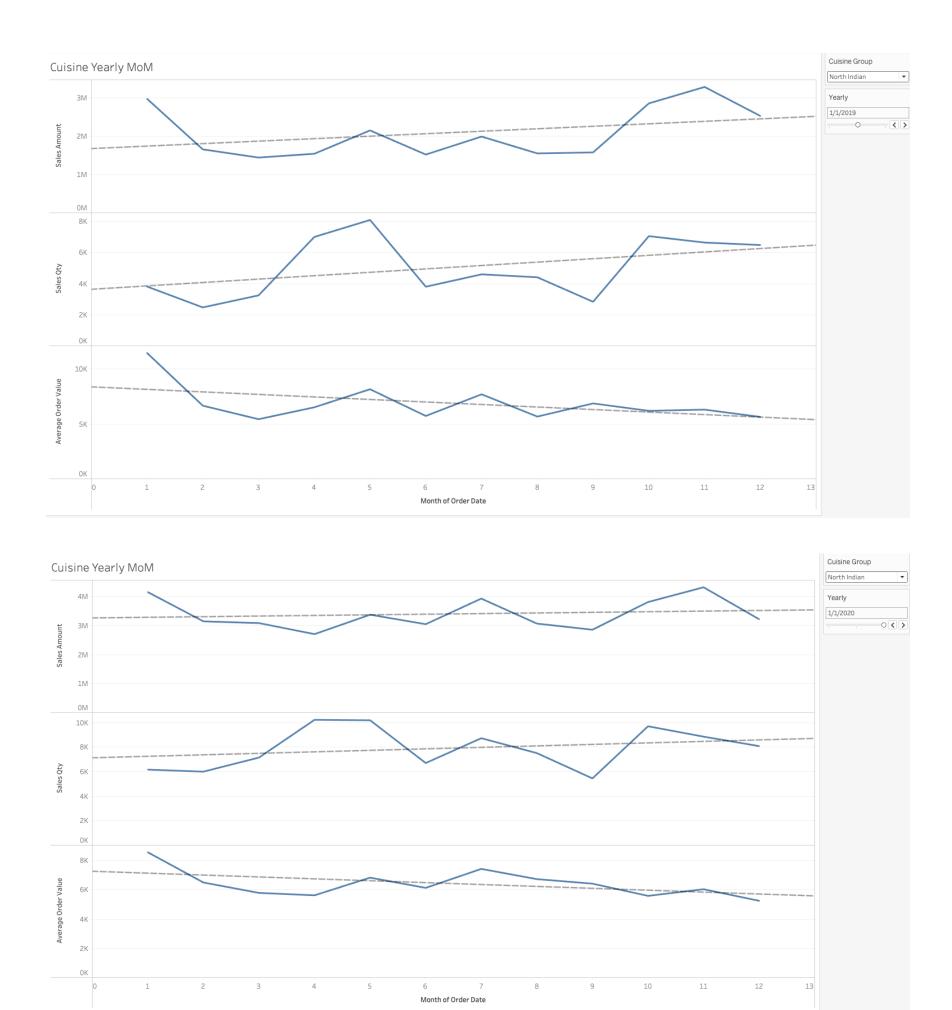
The North Indian segment is the most populous, yet most brands are low value. A large proportion of brands engage only once or infrequently, lagging behind the loyalty seen in other segments. This highlights a gap between initial interest and sustained engagement. By launching a comprehensive loyalty program, North Indian brands could foster deeper connections and repeat engagement. This population has the most potential, because of the broad brand base in Northern Indian.





4. North Indian Cuisine: Sales Trends

North Indian cuisine is attracting more customers each month, but people are spending less per order. This means interest is growing, but there's room to boost how much each customer buys... Just like Dominos in the (Products Analysis by Cuisine Segment) in the Tableau story, a move from 3-5 products can be the difference between 500,000 Crore and 1.5 million Crore in LTV.

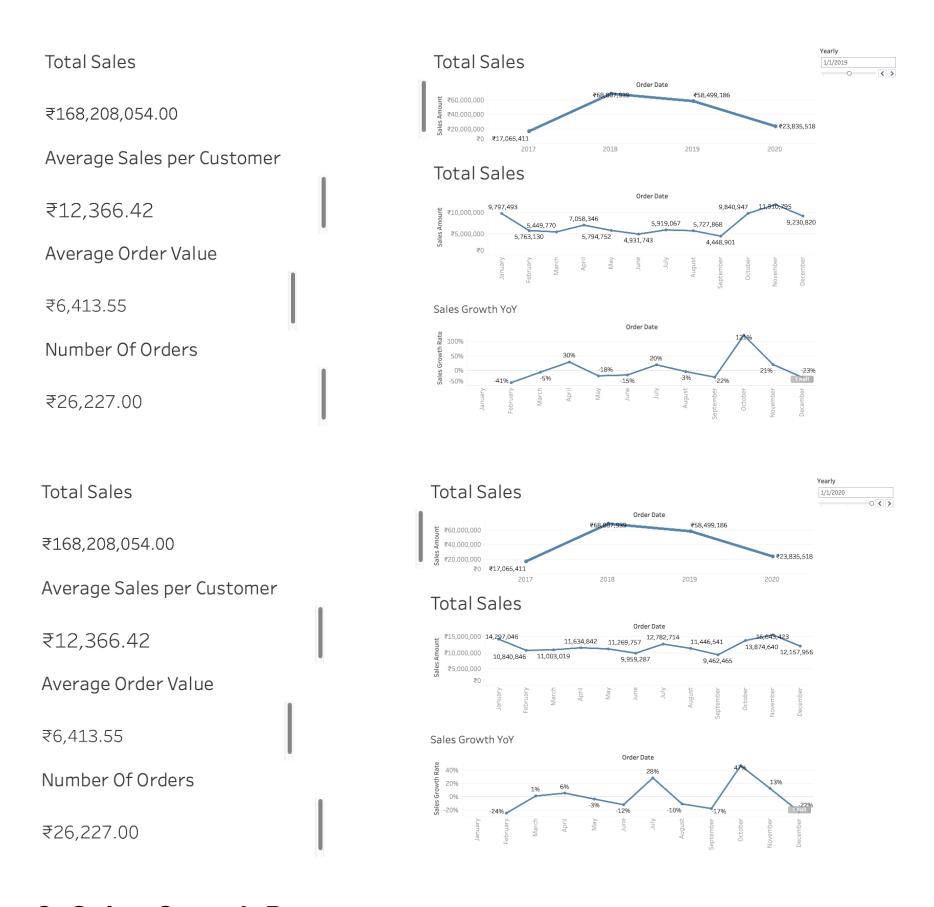


6. Sales Analysis: Key Drivers of Performance

Our sales review reveals that consistent growth is fueled by a strong core of repeat brands (customers) and steady order volumes across their venues. With total sales surpassing ₹168 crore and an average order value of ₹6,413, the business has established a robust foundation. However, year-over-year growth has shown fluctuations, with noticeable peaks and dips throughout the year. To sustain momentum, it will be essential to focus on retaining high-value brands and optimizing the sales process for their venues, rather than relying solely on expanding the number of brands. Encouraging brands to increase their average order value—especially by broadening the range

of products they purchase—and nurturing loyalty among existing brands can help drive stable, long-term growth for the business.

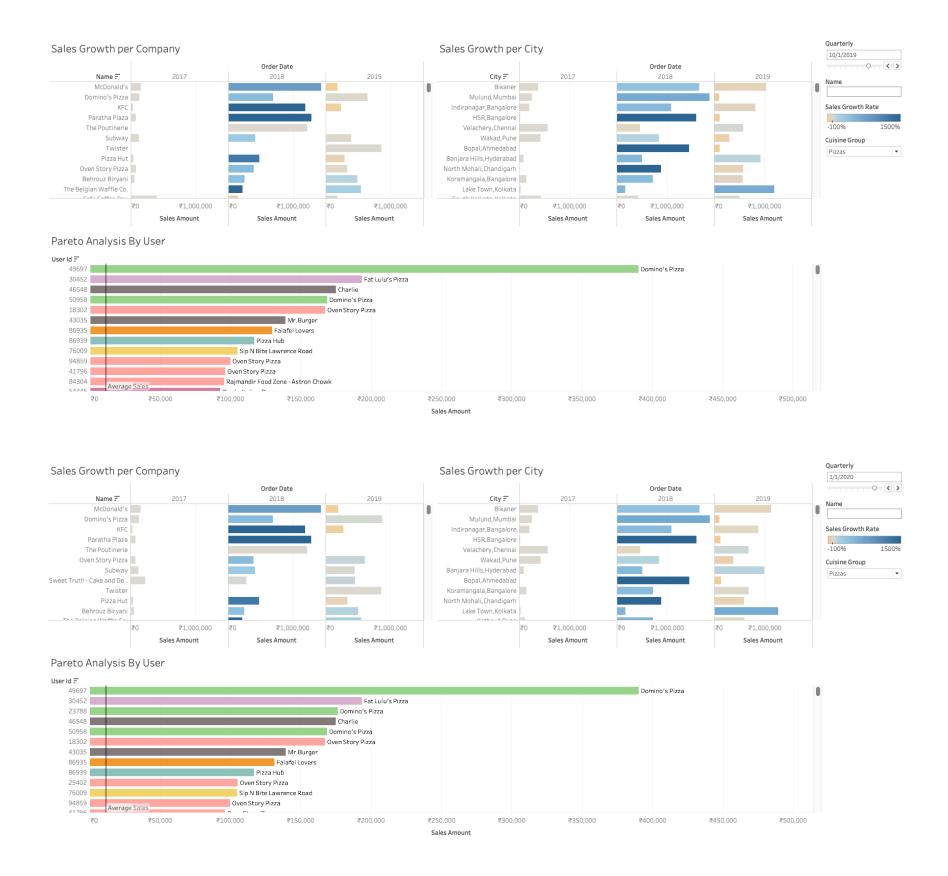
The data shows that brands like Domino's Pizza, which purchase a wide range of products from Zomato, consistently achieve higher sales and revenue across their venues. In contrast, brands with a more limited product selection do not experience the same level of growth. This suggests that by broadening inventory options and encouraging brands to diversify their purchases, Zomato can help drive sustained sales increases. Regularly expanding and optimizing the product range offered to brands is key to maximizing sales and market impact.

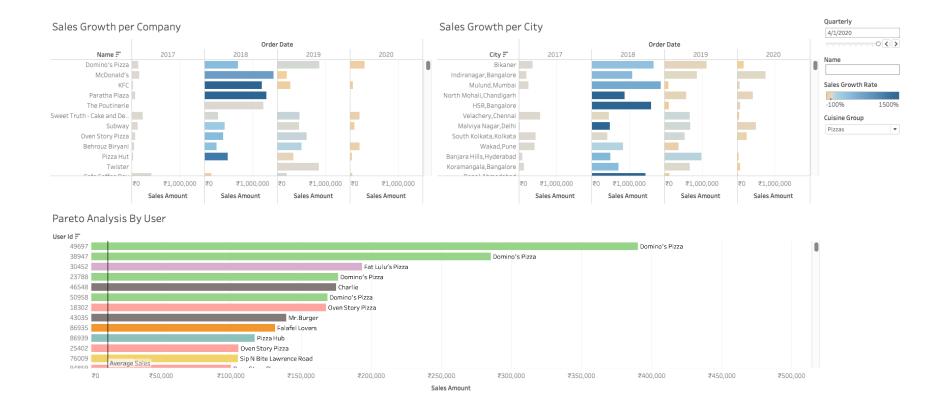


2. Sales Growth Patterns

Sales growth varies widely across both companies and cities. Some brands, like Domino's Pizza, show strong and consistent gains, while others see

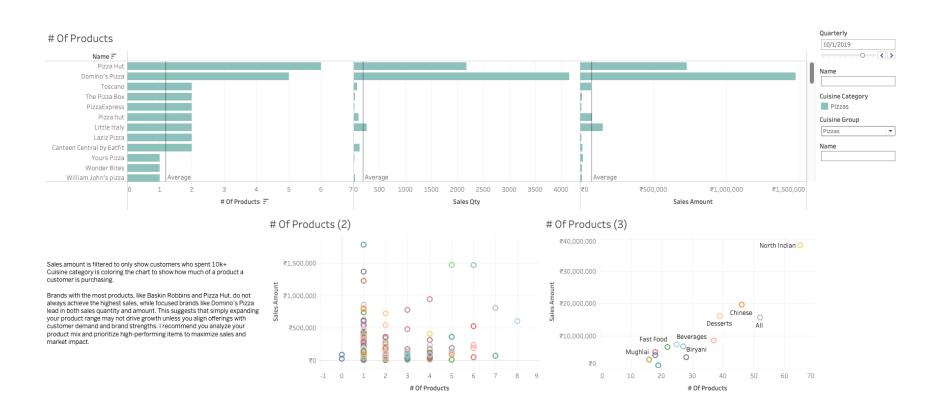
more modest or uneven results. Certain cities are emerging as key growth drivers, with sales amounts rising sharply year over year. The Pareto analysis also reveals that a small group of users accounts for a large share of total sales, highlighting the importance of nurturing top customers to sustain momentum.

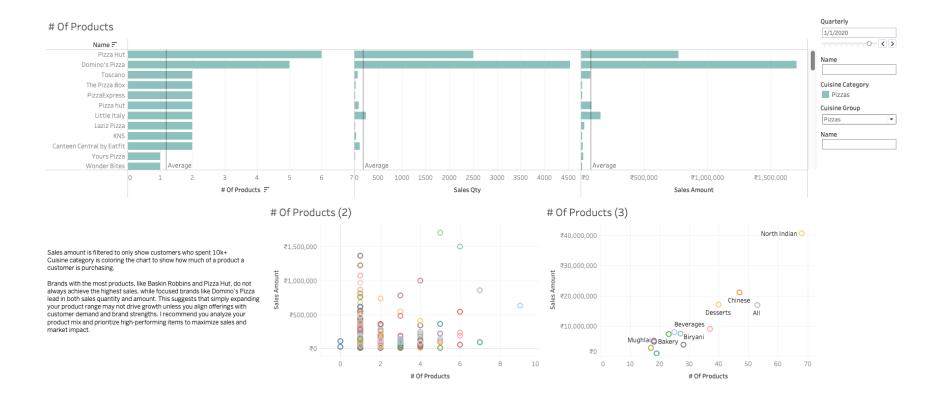


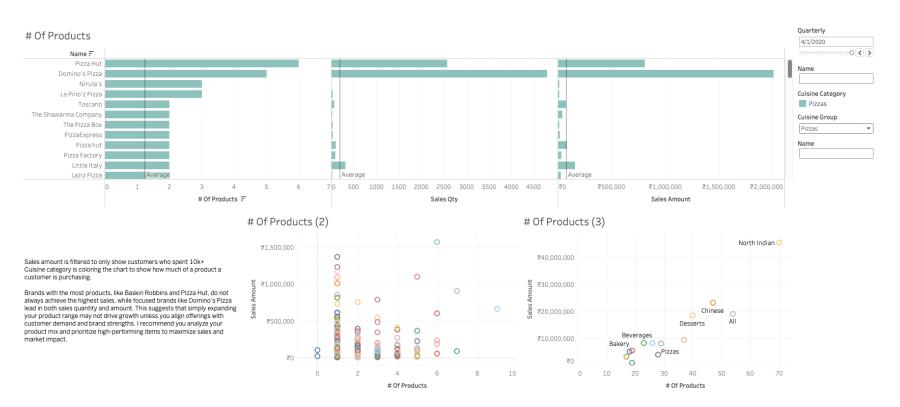


3. Product Range vs. Sales Impact

Expanding the variety of products available to brands (customers) with multiple venues leads to greater sales growth over time. The data shows that brands like Domino's Pizza, which purchase a wide range of products from Zomato, consistently achieve higher sales and revenue across their venues. In contrast, brands with a more limited product selection do not experience the same level of growth. This suggests that by broadening inventory options and encouraging brands to diversify their purchases, Zomato can help drive sustained sales increases. Regularly expanding and optimizing the product range offered to brands is key to maximizing sales and market impact.

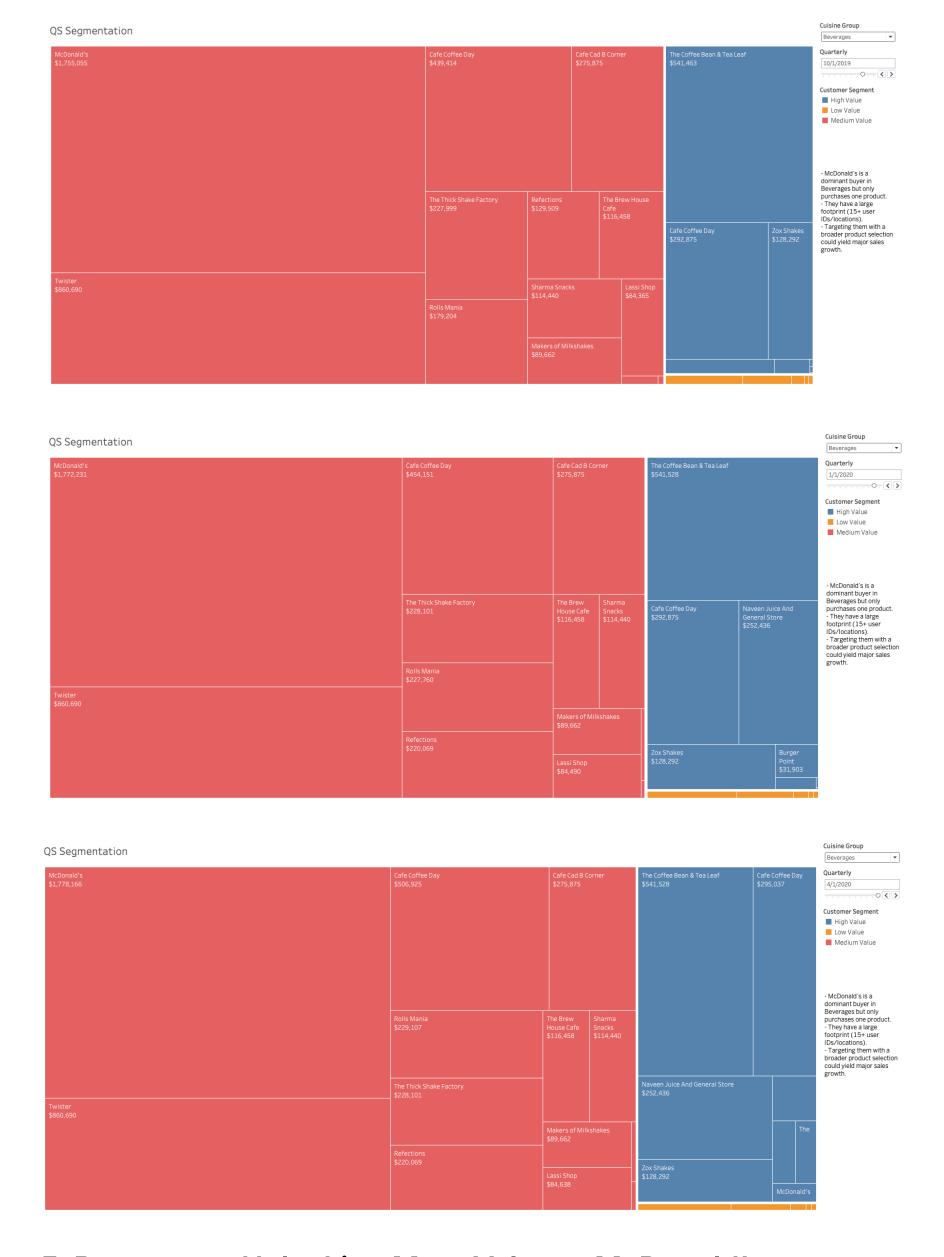






4. Beverage Segment: Customer Value Insights

McDonald's dominates beverage sales but focuses on just one product, missing out on potential growth from a broader selection. Most other brands fall into the medium or low-value segments, with only a few high-value customers. There's a big opportunity to boost sales by encouraging top buyers—like McDonald's—to try more products, and by helping other brands move more customers into the high-value group.



5. Beverages: Unlocking More Value at McDonald's

McDonald's leads the beverage category in both sales and customer numbers, but most of its buyers are still in the low or medium-value segments. This means there's a big opportunity to encourage more frequent purchases or upsell premium drinks. With the right offers or loyalty perks,

McDonald's could turn more casual beverage buyers into high-value customers and boost overall sales.

Key Insights: Sales & Customer Segmentation

Sales Performance

Domino's Pizza leads in both sales and order volume, showing steady growth and consistent performance across quarters. 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 even though most brands in this segment operate fewer venues and have lower average sales per venue.

Brand Segmentation

In this analysis, brands are treated as customers, and each brand can operate multiple venues. Domino's Pizza's growth is driven by brands that purchase a wide variety of products, resulting in a large share of total sales. McDonald's, while strong in beverage sales, 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, despite its large footprint, 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, being the most populous and diverse, presents the greatest opportunity: by broadening the inventory options available and running targeted campaigns to encourage Northern Indian brands and their venues 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.