# Zomato Customer Analysis

### Objective

To analyze and understand Zomato customer segments and their spending behaviors. See how spending behaviors may differ from each segment.

### Data

To complete this task the data spreadsheets used were: Users Table, Orders Table and Restaurants Table.

In the Restaurants Table rows were omitted with blanks in the cuisine column.

In the Orders Table rows were omitted with blanks in the r\_id column. Rows were omitted with over 1,000 in the Sales Quantity column. As these numbers are large and appear to be outliers in the data. Added order\_day\_of\_week column. Filtered out restaurants with less than 1,000 orders in the Sales Quantity Column.

### Analysis

Customers were groupeda into 6 segments to understand just exactly who the majority of Zomato’s customers are, what are there spending habits and how do they change amongst different segments.

The six segments are:

1. Age
2. Occupation
3. Gender
4. Monthly Income
5. Marital Status
6. Family Size

Age:

The age segment is broken down into four different categories: 18-20, 21-24, 25-29, and 30-33. Age was broken down into these categories based on age ranges and how people in these are ranges and generally in the same stages of life.

Looking at the data the most popular age range of users is between the ages of 21 to 24.

Occupation:

The occupation segment is divided by Student, Employee, Self-Employed and Housewife. These categories are taken from the Users Table where users entered this information themselves on their Zomato profile.

Most of Zomato’s users are Students.

Gender:

Again this information was taken from the Users Table where users input this data into their profile.

58% of users are male and 42% of users are female.

Monthly Income:

Monthly Income segment is divided into the following categories: No Income, Below 10,000 Rs, 10,0001-25,000 Rs, 25,001-50,000 Rs, and more than 50,000 Rs.

This information was taken from the Users Table where the income categories were already in place.

No Monthly Income is the highest user category.

Marital Status:

This information was taken from the Users Table and has three categories: Single, Married and Prefer Not to Say. The users are:

Single: 69%, Married: 28%, Prefer Not to Say: 3%

Family Size:

Family Size information was again taken from the Users Table. Family Size categories range from sizes 1 to 6. The majority of users have a family size of 3, with a family size of 2 right behind.

This was information again entered by the individual users. The assumption is that this is taking into account how many people live in one particular unit, not if they are related. This assumption is based on the previous segment analysis that tells us that the majority of customers are aged 21-24 students with no income.

Customer Spending Habits

Day of Week:

The users spend the most money on weekdays, Monday through Friday. Friday taking the top spot followed by Wednesday and Tuesday. There is a drastic difference in spending on weekdays compared to weekends. Friday, the top weekday, had $250 million in sales. While Saturday, the top weekend day, had $1.3 million in sales.

Cuisine:

The top 3 cuisines amongst Zomato customers are: North Indian, Chinese and Indian.

Rating Count:

On the Zomato app customers are allowed to see how many ratings/quality of the ratings a restaurant has before placing an order. The categories for the ratings are: too few ratings, 20+ ratings, 50+ ratings, 100+ ratings, 500+ ratings, 1k+ ratings, 5k+ ratings and 10k+ ratings.

The rating category that has the most amount of orders is Too Few Ratings with $526M, followed by 20+ ratings with $150M.

The distribution of users by age has changed over the years:

The analysis of customer data from 2017 to 2020 indicates significant trends in user engagement across different age groups. The 21-24 age group consistently had the highest number of users, peaking in 2018, but experienced a notable decline in the following years. Similarly, the 25-29 age group saw substantial growth in 2018 before a steady decrease. The 30-33 and 18-20 age groups had consistently lower user counts, with a general downward trend from 2019 to 2020 across all age groups. This suggests a possible decline in overall user engagement or external factors affecting customer retention during the later years.

Rating and Sales:

The scatter plot visualizes the relationship between restaurant ratings and total sales amounts. Each point represents a restaurant, with the x-axis showing the sales amount and the y-axis displaying the rating. The data points are densely clustered around the lower sales amounts, with ratings spread across the full range. While there is a slight upward trend near the 4.0 rating mark, the plot suggests little to no strong correlation between a restaurant's rating and its total sales. The concentration of data points in the lower left quadrant indicates that most restaurants have both lower sales and a range of ratings from 2 to 4.

Overall Analysis

The majority of Zomato’s customers are college students aged 21-24 who have no income. The college age segment also places order Monday through Friday, with very minimal orders on weekends. It can be assumed that the students are ordering food on weekdays when they have class, have homework and are generally very busy and declines on weekends when they may have more free time to go out and spend with friends or go home and visit family.

The next most popular segment is young professionals. This group is aged 25-29 and the man profession is an employee. The young professional segment represents young people who recently graduated from college and have just entered the workforce. This segment also places the majority of orders and weekdays, Friday being number one, and again drops off on weekends. Again, it can be assumed that this segment is busy with work during the week, and particularly tired on Friday. And has more free time to spend with friends, family or cooking at home on weekends.

North Indian cuisine is the number one cuisine amongst all different segments. This being the most popular cuisine could be why there is no correlation between the amount of orders placed and the amount of reviews that a restaurant has. It was hypothesized that in the analysis the more reviews that a restaurant has the more likely it was have a higher number of orders. This can be attributed to the fact North Indian Cuisine is the staple cuisine for where Zomato customers live. Customers are looking for food that they enjoy, and are familiar with and a restaurant rating on the app does not factor into their ordering decisions.

It would be beneficial for Zomato to also give us access to data on when the users accounts were created so how long users stay active could be tracked. It is reasonable to assume that, since the majority of users are college students or recent working graduates, users stop using the app as they get older and start their own families. As maintaining customers is easier than attracting customers, it would benefit Zomato to continue to attract younger customers and maintain them as the become older.

The house-wife and self-employed segments are very small, due to the fact that these segments may have more time at home to cook during the week than students and employed segments. It is also likely that these segments spend more time in the house and when they are not cooking they are eating out at restaurants and not ordering meals online. Trying to appeal to these segments likely does not have a high return on investment. Instead, appealing to the employed young professionals will. Some possibilities are to offer promotions during lunchtime so these users order lunch instead of bringing it with them. Also, offering promotion during the weekends to both the 21-24 and 25-29 segments will help increase revenue. Alongside promotions from the company, user can also receive notifications from the app during non high-peak times to order food, or an alert about their favorite restaurant or a place they might like to try.

### Summary of Findings

1. **Customer Segments:** The majority of Zomato's users are aged 21-24, primarily college students with no income, followed by young professionals aged 25-29. Most users are single and live in small households.
2. **Spending Habits:** Users tend to order more on weekdays, with Friday being the peak day for spending, and show a significant drop in spending on weekends. North Indian cuisine is the most popular among users, indicating a preference for familiar local food.
3. **Influence of Ratings:** The number of restaurant ratings does not heavily influence ordering decisions, with many orders placed at restaurants with fewer ratings. Users prioritize cuisine preference over restaurant ratings.
4. The analysis demonstrates a positive correlation between these two metrics: cuisines with higher user counts generally also have higher sales amounts. North Indian cuisine, for example, shows the highest popularity and sales, while other cuisines like desserts and Italian have lower popularity and sales.
5. The analysis depicts the sales amounts for various restaurants, with Domino's Pizza leading the pack with a significant margin. Domino's Pizza stands out with sales amounting to $5 million, which is over $1 million more than the second-highest restaurant, KFC. This substantial lead highlights Domino's strong market presence and popularity. Other notable competitors include Burger King, McDonald's, and Baskin Robbins, each showing respectable sales figures but still trailing behind Domino's by a considerable amount.

### Recommendations for Zomato

1. **Engage Younger Users:** Focus on attracting and retaining younger users, especially students and recent graduates. Track user account creation dates to understand user activity durations and develop tailored retention strategies.
2. **Promotional Strategies:** Implement lunch hour promotions to encourage weekday orders from young professionals. Offer weekend promotions targeting the 21-24 and 25-29 age segments to boost weekend sales.
3. **Personalized Notifications:** Utilize app notifications to drive orders during off-peak times and provide personalized restaurant suggestions based on user preferences. Promote restaurants offering popular cuisines, particularly North Indian, to align with user tastes and increase satisfaction.
4. To address the decline in user engagement, particularly among the largest user groups (21-24 and 25-29), Zomato should consider targeted marketing campaigns to re-engage these users and investigate potential external factors that may have contributed to the drop. Additionally, efforts should be made to attract and retain users in the 30-33 and 18-20 age groups by offering age-specific promotions and enhancing user experience based on the preferences and behaviors of these demographics. Understanding and mitigating the reasons for the decline from 2019 to 2020 will be crucial in maintaining a robust and growing customer base.
5. Given the lack of strong correlation between ratings and sales, Zomato should consider additional factors that may influence restaurant sales, such as location, pricing, marketing efforts, and customer loyalty programs. Focusing on these areas may provide more actionable insights to boost sales. Additionally, Zomato could explore targeted strategies to improve the visibility and appeal of restaurants with higher ratings but lower sales, potentially leveraging customer reviews and social media marketing to attract more patrons. Understanding the diverse elements affecting restaurant performance will be crucial for creating effective growth strategies.
6. Zomato should leverage the positive correlation between cuisine popularity and total sales by focusing marketing and promotional efforts on the most popular cuisines to maximize revenue. Special promotions, discounts, and partnerships with restaurants offering North Indian, Chinese, and other popular cuisines can further boost sales. Additionally, to diversify and increase overall sales, Zomato should explore strategies to enhance the appeal of less popular cuisines, such as offering combo deals, featuring these cuisines in marketing campaigns, and encouraging user reviews to attract more customers. By balancing efforts between popular and less popular cuisines, Zomato can optimize growth and customer satisfaction.
7. The data suggests that Domino's Pizza has a robust market strategy and customer base that allows it to outperform its competitors. For other restaurants to compete effectively, they may need to investigate the strategies that Domino's employs, such as its marketing techniques, menu offerings, customer engagement practices, and delivery services.

Recommendations for other restaurants to enhance their sales include:

* Enhancing Delivery Services: Like Domino's, offering efficient and widespread delivery options can significantly boost sales.
* Marketing and Promotions: Increasing marketing efforts and running promotions can attract more customers.
* Menu Diversification: Expanding and diversifying the menu to cater to a broader audience can help attract more customers.
* Customer Engagement: Implementing loyalty programs and engaging with customers through social media and other platforms can enhance customer retention and attract new customers.

By adopting some of these strategies, other restaurants might be able to narrow the gap and increase their sales figures.