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Zomato India EDA & Marketing Campaign

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Contents

Designing a Marketing Campaign for a Restaurant Chain Using Exploratory Data Analysis

1. Introduction:

Zomato was initially launched as Foodiebay in 2008 and became Zomato in 2010. Currently, it is among the largest internet-based service providers in India. They are serving as restaurant aggregator and delivery service providers. Like “Foodpanda”, restaurants and food chains are registered with Zomato and they upload their cuisines and pictures to display their food and deals. In 2021 the IPO of Zomato was the biggest ever IPO of a technology company.

Overview of the dataset:

The dataset included the following information;

1) **res_id:** Restaurant ID.
2) **name:** Name of the restaurant.
3) **establishment:** Type of establishment (e.g., Quick Bites, Casual Dining).
4) **URL:** URL to the restaurant's Zomato page.
5) **address:** Physical address of the restaurant.
6) **city:** City where the restaurant is located.
7) **latitude, longitude:** Geographical coordinates.
8) **cuisines:** Types of cuisines offered.
9) **average_cost_for_two:** Average cost for two people.
10) **price_range:** Price range.
11) **currency:** Currency in which the prices are listed.
12) **highlights:** Key features or services offered by the restaurant.
13) **aggregate_rating:** Aggregate rating of the restaurant.
14) **rating_text:** Textual rating (e.g., Very Good, Excellent).
15) **votes:** Number of votes the rating is based on.
16) **photo_count:** Number of photos uploaded for the restaurant.
17) **opentable_support:** Indicator of support for OpenTable reservations.
18) **delivery:** Delivery status.
19) **takeaway:** Takeaway status.

Significance:

The data stores a lot of information, useful for analyses like understanding the spread of restaurants across cities, customer preferences, pricing analysis, and customer ratings and reviews. These insights help design marketing campaigns, strategies to attract more customers and promotional activities for new entrants.

Objective of the analysis:

The main objective of this analysis is to design a marketing campaign which will help the restaurants understand their target market, consumer preferences, competition, and promotional tools to increase revenue.

2. Data Cleaning and Preparation

Removing Duplicates:

We identified and removed duplicate entries based on the **'res_id'** column to ensure uniqueness in the identifiers. There were 211,944 rows out of which 55,568 were left for analysis after removing the duplicates.

Dropping Irrelevant Columns:

The **'zipcode'** column was found irrelevant for the analysis and dropped from the dataset.

Handling Missing Values:

- For the 'opentable_support' column, there were 12 missing values which we filled with the mean, which was 0 as all the entries were also 0.
- There were 18 missing values in the 'address' column which we replaced with the placeholder "Unknown".
- Missing values in the 'cuisines' column were 470 filled with "Unknown" to maintain record integrity.
- The 'timings' column was more complex due to its varied formats. We left the missing values as is for separate handling.

Creating New Columns from 'timings':

- Extracted 'Opening Time', 'Closing Time', and 'Operational Days' from the 'timings' column.
- Used regular expressions and string manipulation to parse the time formats.
- For records where 'timings' were missing or unclear, 'Operational Days' were filled with the mode of the column, while 'Opening Time' and 'Closing Time' remained unfilled (as 'Unknown').

Data Type Corrections:

Ensured that each column had the appropriate data type for analysis. For instance, numerical columns like 'average_cost_for_two', 'aggregate_rating', and 'votes' were verified to contain numerical data.

Categorization and Encoding:

- In the 'rating_text' column, there were ratings and different languages. Therefore we standardised ratings into common English terms and consolidated 2 ratings like 'Best' into 'Excellent'.
- These cleaning steps were crucial in preparing the dataset for effective and accurate exploratory data analysis, ensuring the reliability of the insights derived.

3. Exploratory Data Analysis

Descriptive Statistics:

Within the dataset capturing restaurant information, our focus centres on three fundamental numerical columns; "average_cost_for_two," "aggregate_rating," and "votes." These columns serve as important indicators, providing essential insights into the landscape and customer feedback within the dataset.

Count: Indicates the number of non-null values present that are left after removal of the duplicates.

Mean: Represents the average value of the data in each column, providing a measure of central tendency.

Standard Deviation (Std): Measures the dispersion or spread of values around the mean. Higher values indicate greater variability.

Minimum (Min): Denotes the smallest value in each column.

25th Percentile (25%): This represents the value below which 25% of the data falls, also known as the first quartile.

Median (50%): The middle value in the data when arranged in ascending order, also known as the second quartile.

75th Percentile (75%): This represents the value below which 75% of the data falls, also known as the third quartile.

Maximum (Max): Denotes the largest value in each column.

Mode: Represents the most frequently occurring value(s) in each column.

Skewness (Skew): Measures the asymmetry in the distribution of data. Positive skewness (>0) indicates a longer tail on the right side of the distribution, while negative skewness (<0) indicates a longer tail on the left side.

Kurtosis: Measures the tails and outliers present in the distribution compared to a normal distribution. Higher kurtosis indicates heavier tails and more outliers compared to a normal distribution (higher peak or flatter tails).

Statistical Tests	**average_cost_for_two**	**aggregate_rating**	**votes**
Count	55566	55566	55566
Mean	528	2.9	223
Std	595	1.46	618
Min	0	0	0
25%	200	2.9	6
50%	350	3.5	35
75%	600	3.9	175

Max	30000	4.9	42539
Mode	200	0	0
Skew	6.36	-1.29	12.75
Kurtosis	149.6	0.18	488

"average_cost_for_two": This metric signifies the average cost for a meal for two individuals at various restaurants. Notably, this column displays high variability, skewed towards higher costs, and contains several outliers, including an exceptionally high maximum value. These outliers might suggest varied pricing strategies or exceptional cases in dining expenses. The cuisines they are offering are also of higher value like “sushi”.

"aggregate_rating": Representing the cumulative rating of restaurants, this column displays moderate variability and a slight left-skewed distribution. Unlike other columns, it presents fewer outliers, suggesting a more balanced distribution of ratings across the dataset.

"votes": The "votes" column, quantifying customer engagement, exhibits higher variability, skewed towards higher vote counts. Notably, it contains several outliers, particularly an extremely high maximum value, indicating extraordinarily high engagement and feedback for specific restaurants.

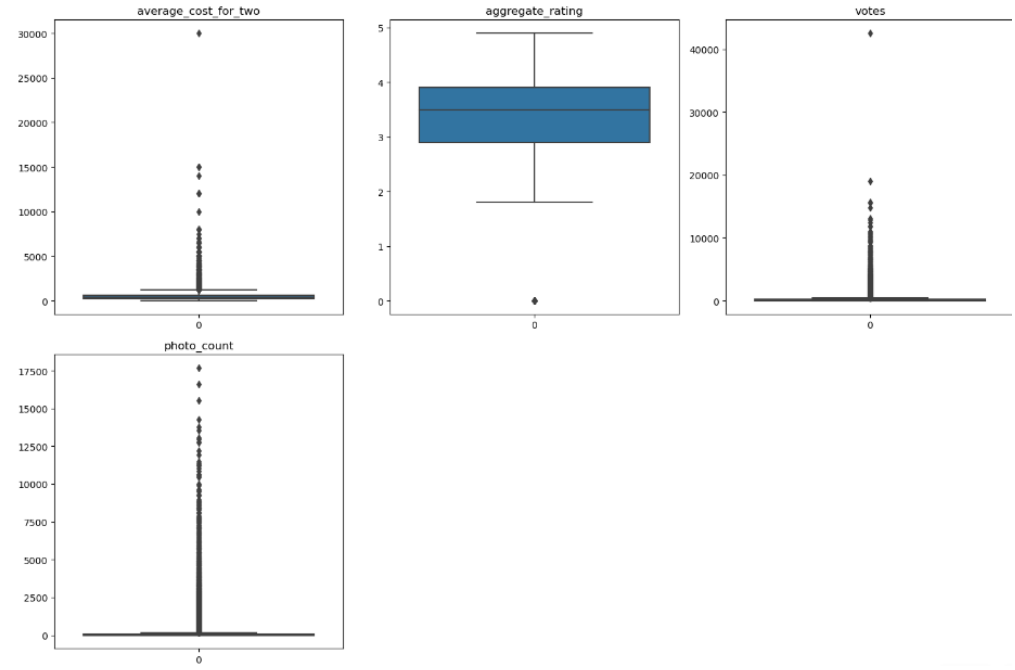
These insights into the data's distribution and characteristics provide valuable context for understanding potential outliers and the variability present in each column. Additionally, the Box plots are also recommended towards outliers that are increasing the variability. However, keeping in view the domain we are analysing and the information extracted from the analysis we are retaining these observations for further analysis, assuming that these are high-end restaurants and selling food for a smaller niche.

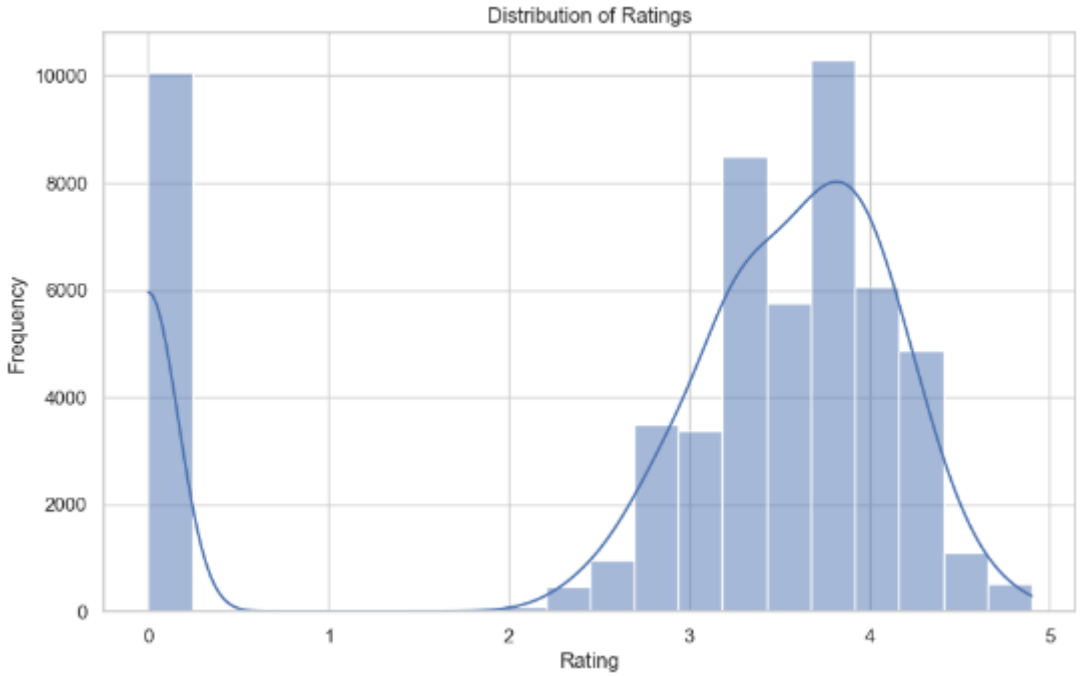
Distribution Analysis

Analysing distributions in the data is a fundamental part of understanding how values are spread or concentrated within a dataset. It helps us uncover patterns, tendencies, and notable behaviours within specific variables. By examining how values are distributed, we gain insights into common occurrences, peaks, and trends within the data, enabling us to comprehend user behaviours, preferences, or operational aspects. This exploration lays the groundwork for understanding various factors like customer ratings, pricing structures, or popular cuisines, providing valuable insights for decision-making or further analysis.

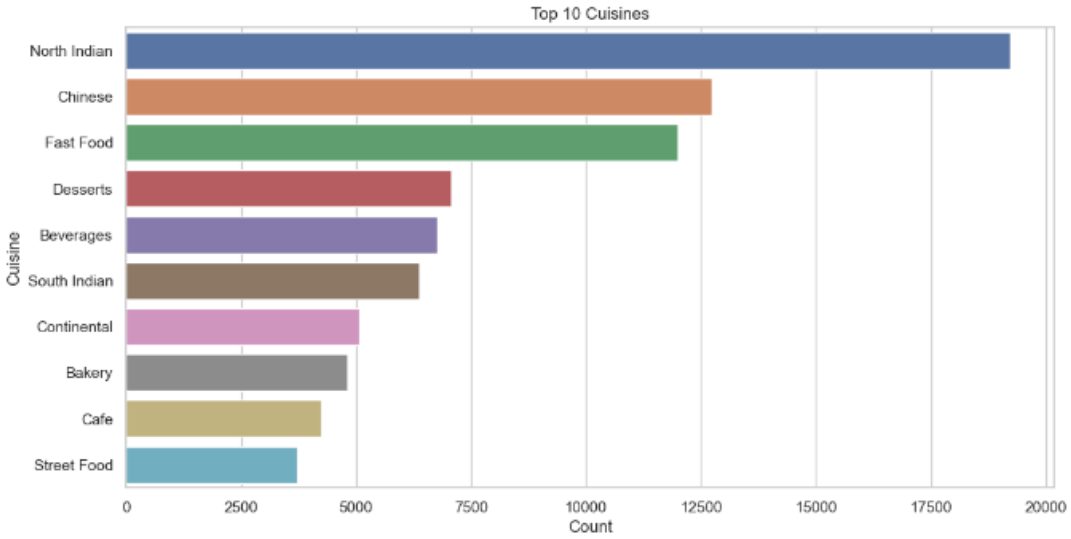
The histogram below shows the distribution of ratings (aggregate_rating) in the dataset. Here are a few observations:

The ratings show multiple peaks, indicating several high points in their spread. Many ratings are whole numbers (such as 3.0, 4.0, etc.), suggesting a trend of users giving rounded

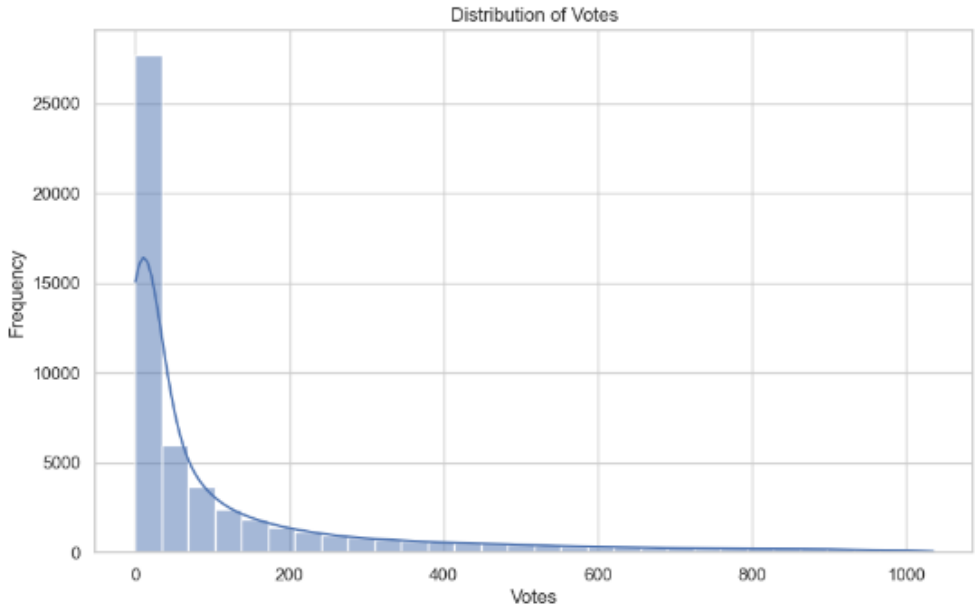




Certain cuisines significantly outnumber others. The diversity in cuisines reflects a rich food culture. North Indian, Chinese and Fast Food are more famous among Indians than other cuisines.

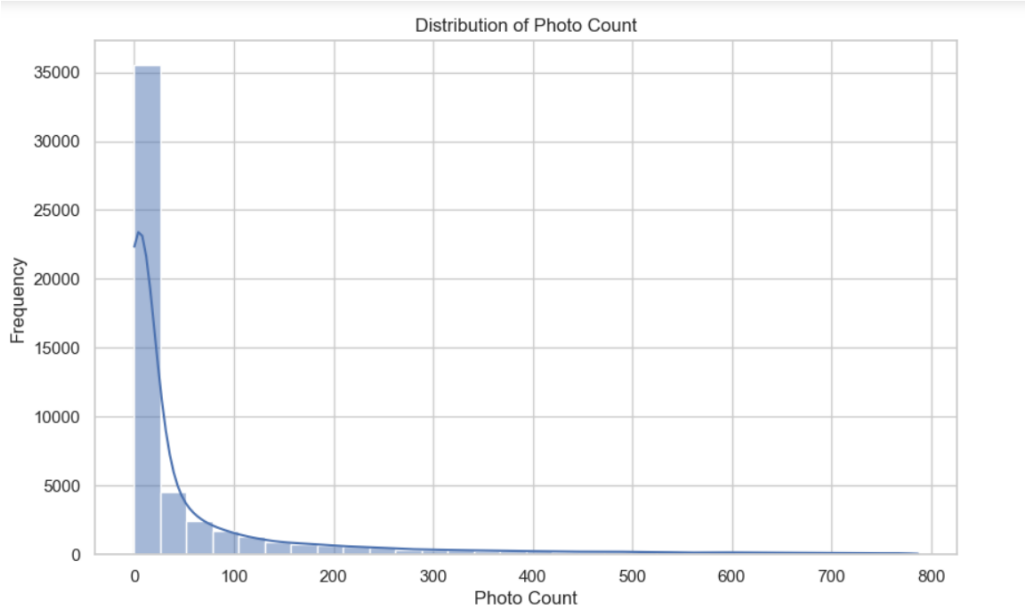


Next, we'll explore the distribution of the "votes" variable, which represents the number of votes received by each establishment, serving as a potential indicator of its popularity or engagement with customers. This is displayed in the Bar chart below:



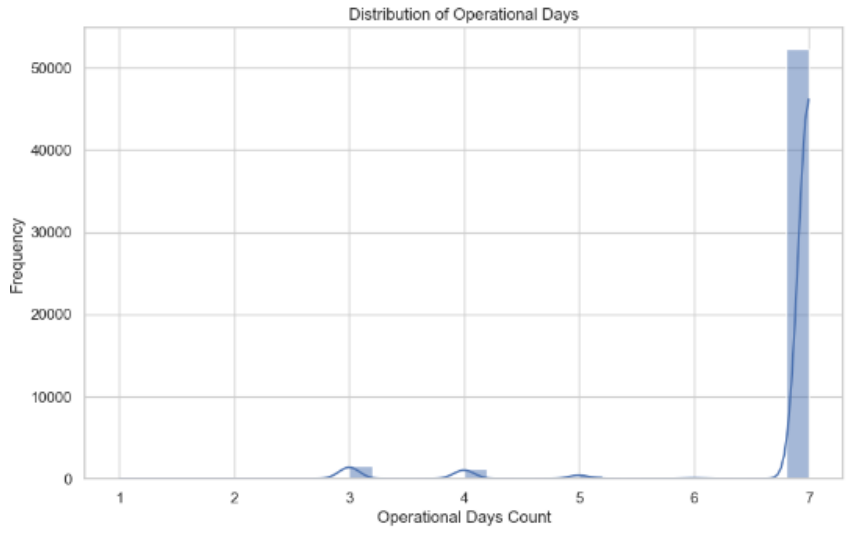
The graph below displays the distribution of the votes, focusing on the 95th percentile to offer a clearer view. The full range includes some very high vote counts that could distort the visual. Most places have relatively few votes, but a handful have a massive number. This pattern makes the graph tilt to the right, showing a few places as super popular.

Now, let's dive into photo_count distribution, which tells us about the visibility of the cuisines to engage the customers.



The histogram shows how photos are spread across different places, focusing on the 95th percentile for a clearer picture. Here's what we found:
Just like the votes distribution, the photo_count distribution also leans to the right. Most spots have a few photos, but a few have loads. This tells us that a handful of places are popular when it comes to photo uploads.

Now, let's observe the trend in the Operational Days. It might tell us how many days a week these spots usually stay open.



The graph depicting the count of operational days (X-axis) against frequency (Y-axis) reveals notable patterns. Specifically, establishments operating for 3, 4, or 5 days a week show frequencies of fewer than 10,000 occurrences, while those operating for 7 days have frequencies exceeding 50,000. This discrepancy in frequency suggests a distinct prevalence between venues with fewer operational days versus those operating every day of the week, highlighting potential differences in popularity, business models, or market demands.

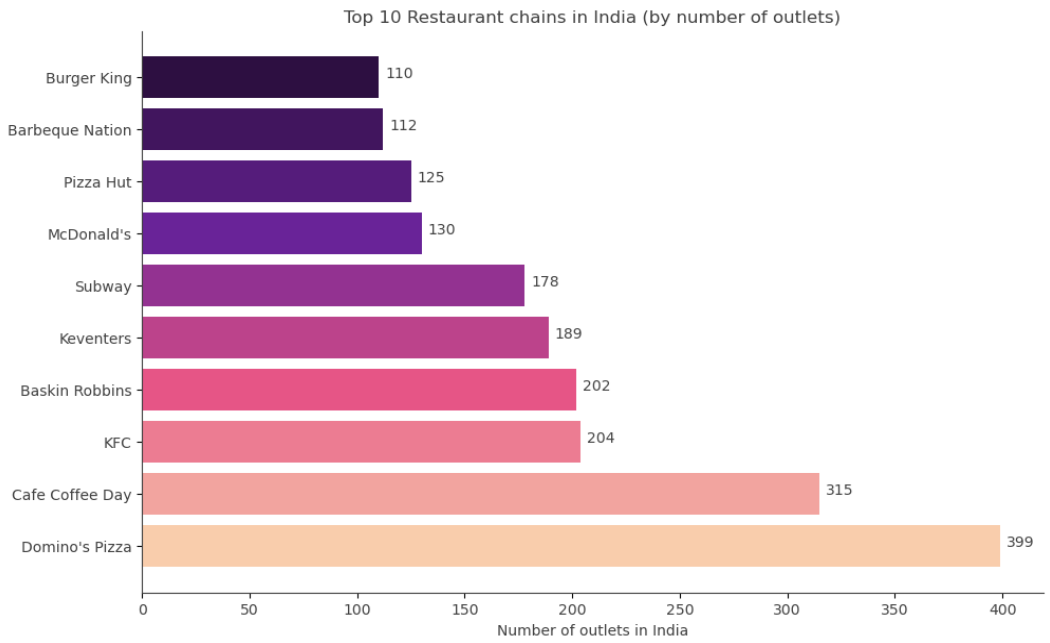
A Ranking of the Top 10 Restaurant Chains by Number of Outlets:

This graph provides a clear visualisation of the competitive landscape in India's fast-food and casual dining sectors, based on the number of outlets each major chain operates. At a glance, we can see that Domino's Pizza leads the market with 399 outlets, suggesting a dominant presence across the country. This is followed by Café Coffee Day, which has 315 outlets, indicating a strong preference for coffee shop venues among Indian consumers.

KFC, a global fast-food chain known for its fried chicken, holds third place with 204 outlets, closely trailed by Baskin Robbins, the ice cream speciality store, with 202 outlets. The presence of an ice cream chain in the top four underscores the popularity of dessert and leisurely snack options in India.

The middle tier comprises Subway, Keventers, and McDonald's, each with a substantial but noticeably fewer number of outlets ranging from 130 to 189. These figures imply a solid but more regionalized market presence.

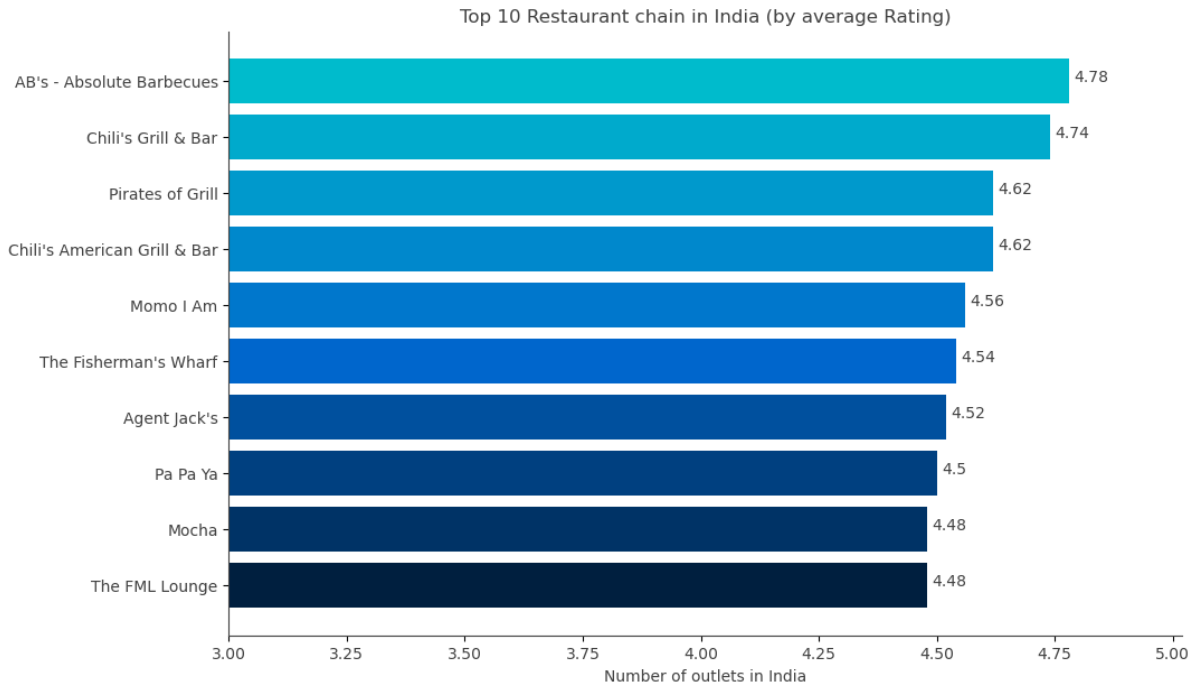
The lower end of the spectrum includes Pizza Hut, Barbeque Nation, and Burger King, each with slightly over 100 outlets, which may indicate either a strategic focus on specific regions or potential for further expansion within the Indian market.



Top 10 Restaurant Chains in India by Customer Rating:

The displayed bar chart provides an insightful look into the quality perception of the leading restaurant chains in India, as judged by their average customer ratings. AB's - Absolute Barbecues tops the chart with an impressive average rating of 4.78, which may suggest a high level of customer satisfaction and a strong reputation for quality within the market. This could indicate that their offerings resonate well with customer preferences, or they may possess a distinctive competitive advantage such as exceptional service or unique culinary options.

Following closely are Chili's Grill & Bar and Pirates of Grill, with average ratings of 4.74 and 4.62 respectively, showcasing their prominence in the industry and the favourable reception by patrons. The similar ratings for Chili's Grill & Bar and Chili's American Grill & Bar, both at 4.62, may reflect a successful brand consistency in the dining experience they provide.



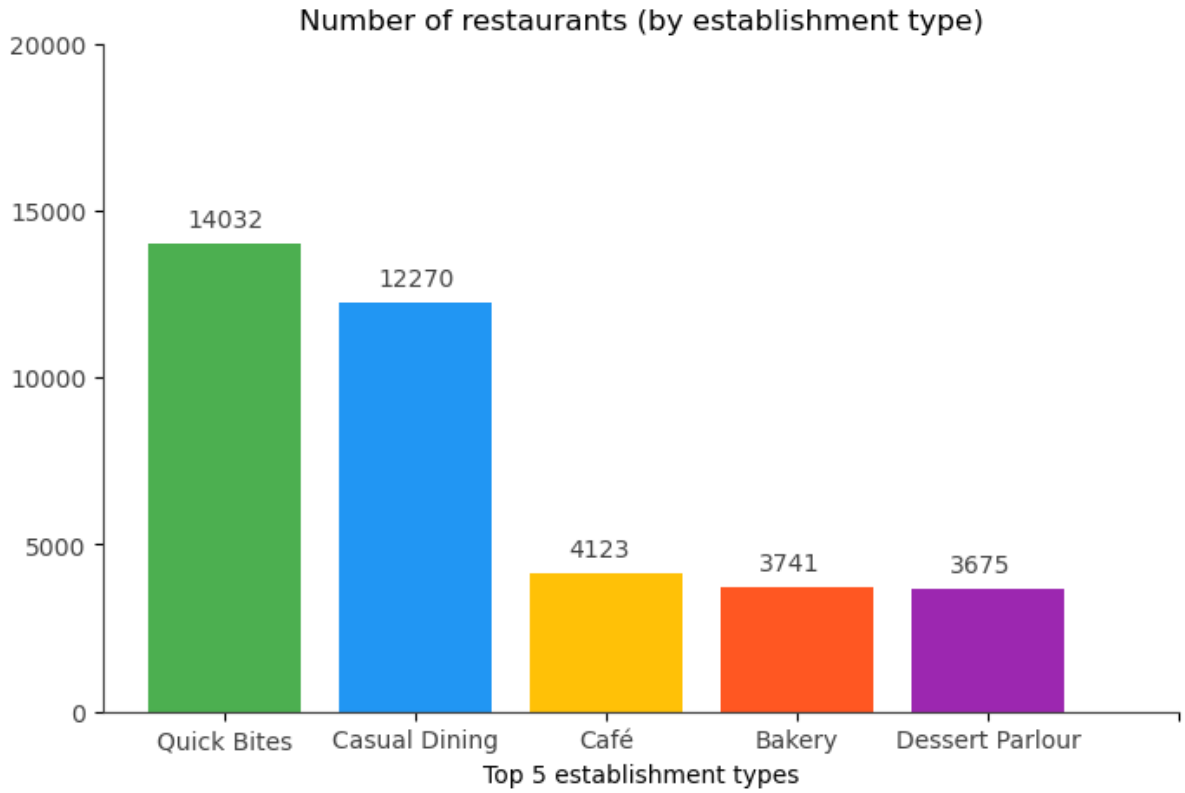
Distribution of Restaurants by Establishment Type:

The bar chart illustrates the distribution of restaurants in India categorized by establishment type, providing a quantitative comparison among the top 5 types. 'Quick Bites' establishments lead significantly with 14,032 locations, indicating a dominant preference for fast, convenient dining options that cater to on-the-go consumers and those seeking timely service. This trend suggests a bustling lifestyle in urban areas where time efficiency is highly valued.

'Casual Dining' follows with 12,270 establishments, reflecting a substantial market segment that prefers a more relaxed dining experience. This indicates a significant consumer segment that seeks a comfortable ambience and a sit-down service without the formality of fine dining.

The presence of 'Cafés' at 4,123 establishments underscores the popularity of informal dining spaces that provide a social atmosphere, often combined with speciality coffee and light snacks, which appeal to a wide range of customers including students, professionals, and social groups.

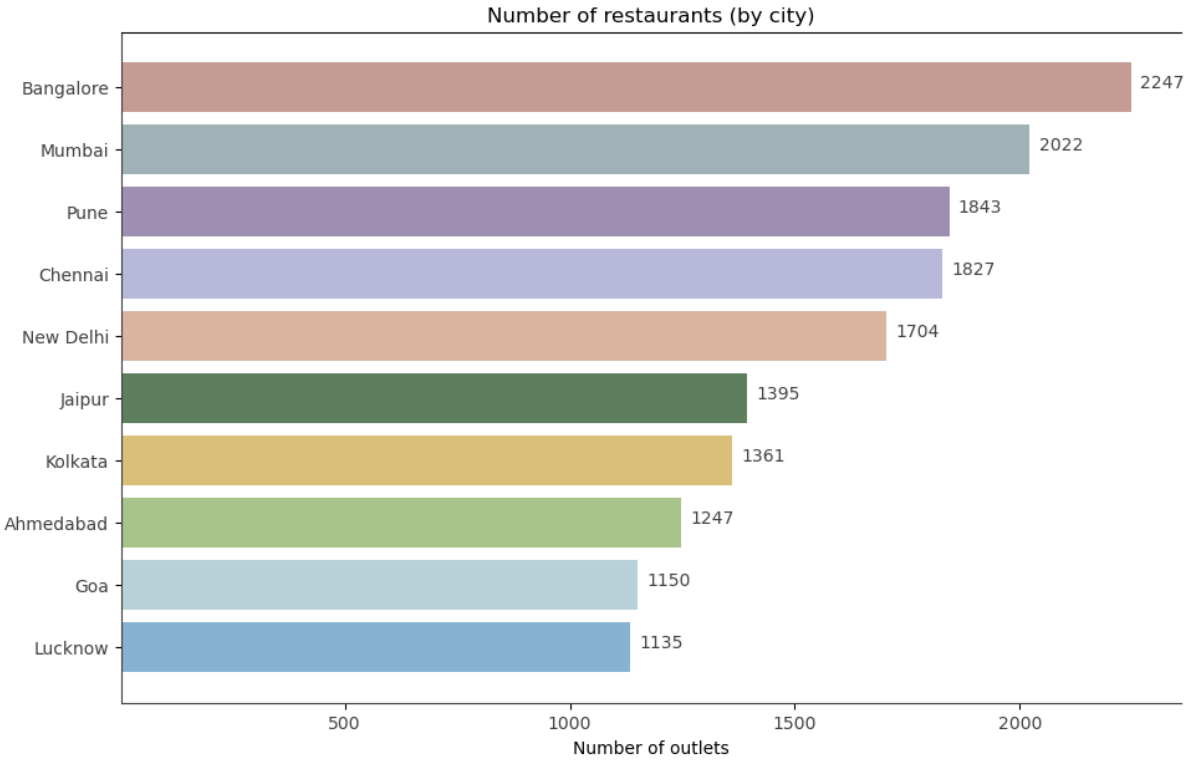
Bakeries' and 'Dessert Parlours', with 3,741 and 3,675 respectively, highlight the demand for specialised food services that cater to consumers' desire for baked goods and sweet treats, suggesting opportunities for growth in niche markets that focus on artisanal or gourmet offerings.



Number of Restaurants in Major Indian Cities:

The graph shows the number of restaurants in ten major Indian cities: Bangalore, Mumbai, Pune, Chennai, New Delhi, Jaipur, Kolkata, Ahmedabad, Goa, and Lucknow. Bangalore has the most restaurants, with 2247, followed by Mumbai ,. Pune, Chennai, and New Delhi have between 1700 and 1850 restaurants each. Jaipur and Kolkata have around 1350 restaurants each, followed by Ahmedabad with 1247 restaurants. Goa and Lucknow have the fewest restaurants, with 1150 and 1135 respectively.

The graph suggests that there is a large and growing market for restaurants in India, particularly in major cities. This is likely due to several factors, including India's growing middle class, increasing urbanization, and rising disposable incomes. The popularity of Western cuisine, as well as the growing demand for healthy and organic food, is also likely to be driving the growth of the restaurant industry in India.



Distribution of Restaurants Across Price Ranges:

Key Findings:

- The city has a significantly higher number of restaurants in the lower price ranges compared to higher price ranges.
- Price Range 1 has the most restaurants, with 28,818 establishments.
- The number of restaurants decreases as the price range increases.
- Price Range 4 has the fewest restaurants, with only 2,798 establishments.

Breakdown by Price Range:

- Price Range 1: 28,818 restaurants (54.5% of the total)
- Price Range 2: 16,582 restaurants (31.4% of the total)
- Price Range 3: 7,370 restaurants (14% of the total)
- Price Range 4: 2,798 restaurants (5.3% of the total)

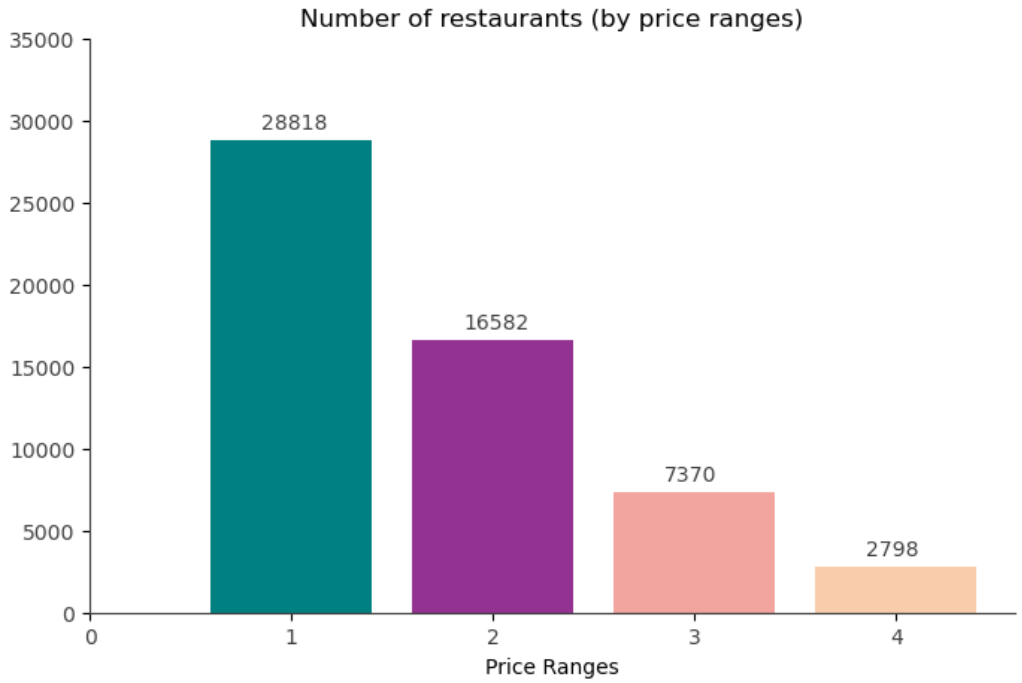
Implications:

- The dominance of lower-priced restaurants suggests a strong demand for affordable dining options in the city.
- This could be driven by various factors such as:
    - Economic conditions and budget constraints among consumers
    - Preferences for casual and value-driven dining experiences
    - A thriving street food culture and prevalence of independent eateries

- The relatively lower number of restaurants in higher price ranges could reflect:
    - A smaller segment of consumers with higher spending power
    - A preference for home-cooked meals or special occasion dining in those segments
    - Limited availability of high-end dining establishments or challenges in sustaining them

Recommendations:

- Further research could explore the specific factors driving the observed distribution of restaurants across price ranges.
- Insights into consumer preferences and spending patterns could inform strategies for restaurant businesses.
- Considerations for city planning and economic development might include:
    - Promoting diversity in dining options across price ranges
    - Supporting the growth of restaurants in underserved price segments
    - Addressing potential challenges faced by higher-priced restaurants



Correlation Analysis:

To perform a correlation analysis, we'll focus on variables that are numeric or can be reasonably transformed into numeric values. In the df_cln dataset, we can consider the following variables for correlation analysis:

Ratings (aggregate_rating) - Reflects customer satisfaction. Price Range (price_range) - Indicates the relative affordability of the establishment. Votes (votes) - This can be a measure

of popularity or engagement. Photo Count (photo_count) - Another potential measure of popularity or customer interest. Average Cost for Two (average_cost_for_two) - Indicates the average expense at the establishment. Operational Days (Operational Days) - Reflects the operational pattern of the establishment. We'll compute the Pearson correlation coefficient for these variables. This coefficient measures the linear relationship between variables and ranges from -1 (perfect negative correlation) to +1 (perfect positive correlation), with 0 indicating no linear correlation.

Let's start by examining the correlation matrix and then visualize it for better understanding. The heatmap above visualizes the correlation matrix for the selected variables. Here are some key observations:

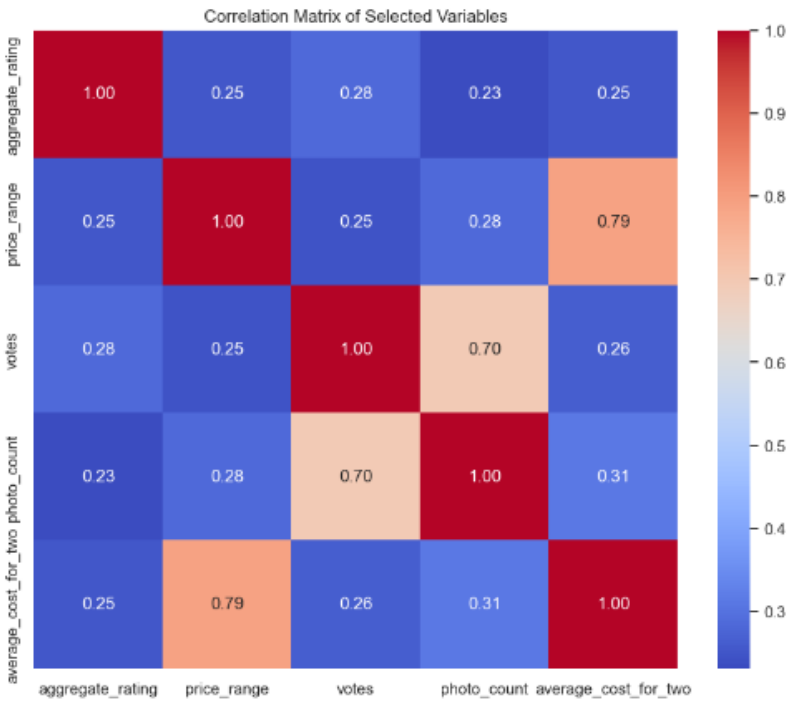
Ratings and Votes: There's a moderate positive correlation between aggregate rating and votes. This suggests that higher-rated establishments tend to have more votes, which could imply greater popularity or customer engagement for higher-rated places.

Ratings and Photo Count: A similar moderate positive correlation is observed between aggregate_rating and photo_count, indicating that establishments with higher ratings also tend to have more customer-uploaded photos.

Price Range, Average Cost, and Ratings: Both price_range and average_cost_for_two show a positive correlation with aggregate_rating. This could imply that more expensive establishments tend to have higher ratings, though the correlation is not strong enough to suggest a direct or exclusive relationship.

Votes and Photo Count: There's a strong positive correlation between votes and photo_count. This is expected as both are indicators of customer engagement and popularity.

Operational Days: This variable shows a very low correlation with other variables, suggesting that the number of operational days per week doesn't significantly relate to factors like ratings, price, or customer engagement in this dataset.



These correlations can provide insights into how different aspects of these establishments relate to each other. However, it's important to remember that correlation does not imply causation and further analysis would be needed to understand any causal relationships.

Relationship Between Price Range and Restaurant Ratings:

Key Findings:

- The box plot demonstrates a positive correlation between price range and aggregate rating.
- Restaurants in higher price ranges tend to have higher average ratings compared to those in lower price ranges.
- The median rating increases consistently from Price Range 1 to Price Range 4.
- The spread of ratings (interquartile range) is wider in lower price ranges, suggesting greater variability in customer experiences.

Breakdown by Price Range:

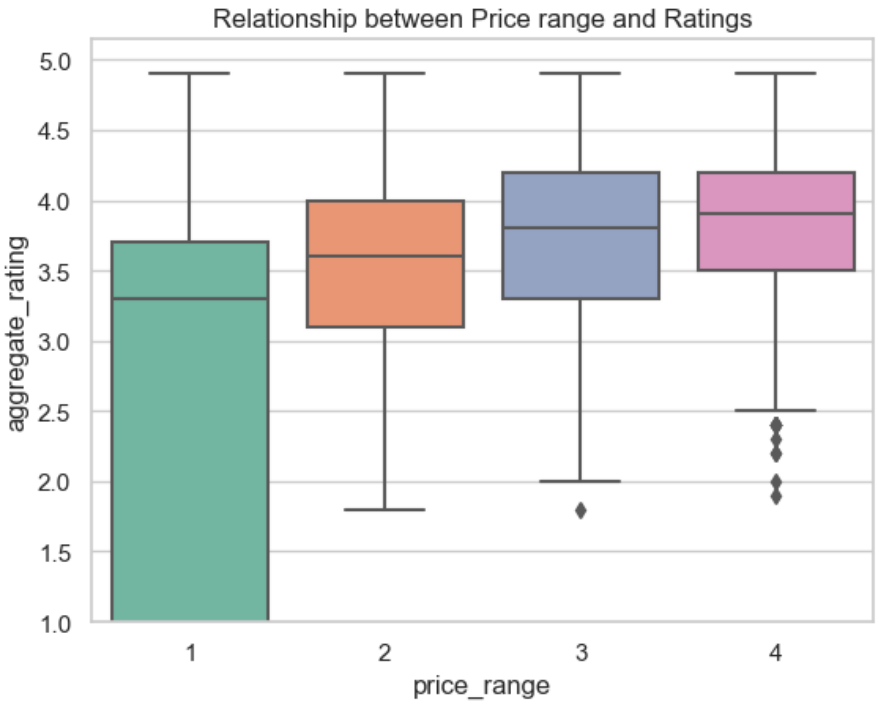
- Price Range 1: Median rating of 3.5, with a wider spread of ratings.
- Price Range 2: Median rating of 4.0, with a slightly narrower spread of ratings.
- Price Range 3: Median rating of 4.25, with a continued narrowing of the spread.
- Price Range 4: Median rating of 4.5, with the narrowest spread of ratings.

Implications:

- The observed relationship suggests that higher-priced restaurants may generally offer a better dining experience, as perceived by customers.
- This could be due to various factors such as
    - Higher quality ingredients, more elaborate preparations, and attentive service.
    - Enhanced ambience and attention to detail in décor and atmosphere.
    - A more selective clientele with potentially higher expectations.
- However, it's important to note that there is still variability within each price range, indicating that price alone doesn't guarantee a positive experience.

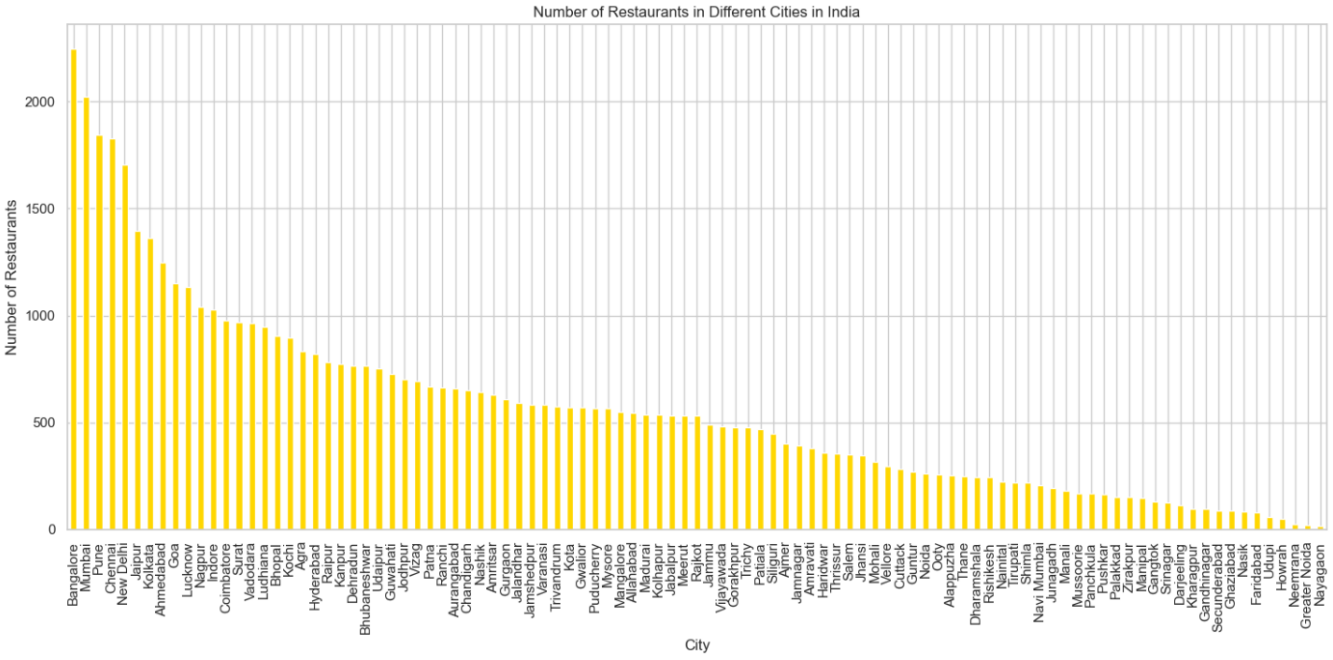
Recommendations:

- Further analysis could explore the specific factors that contribute to higher ratings in higher price ranges.
- Insights could inform strategies for restaurants to improve customer satisfaction and ratings, regardless of price point.
- Considerations for consumers might include:
    - Balancing price expectations with desired quality and experience.
    - Reading reviews and researching restaurants before making choices.
    - Being open to exploring options across different price ranges.



4. Regional Analysis

A deep regional analysis was carried out to compare restaurant trends and customer preferences across different Indian cities or regions.



The bar chart visually represents the restaurant distribution across different Indian cities, offering valuable insights:

City-wise Restaurant Presence: The chart showcases the varying densities of restaurants across Indian cities. Cities with taller bars indicate a higher concentration of restaurants, highlighting areas where the restaurant industry thrives.

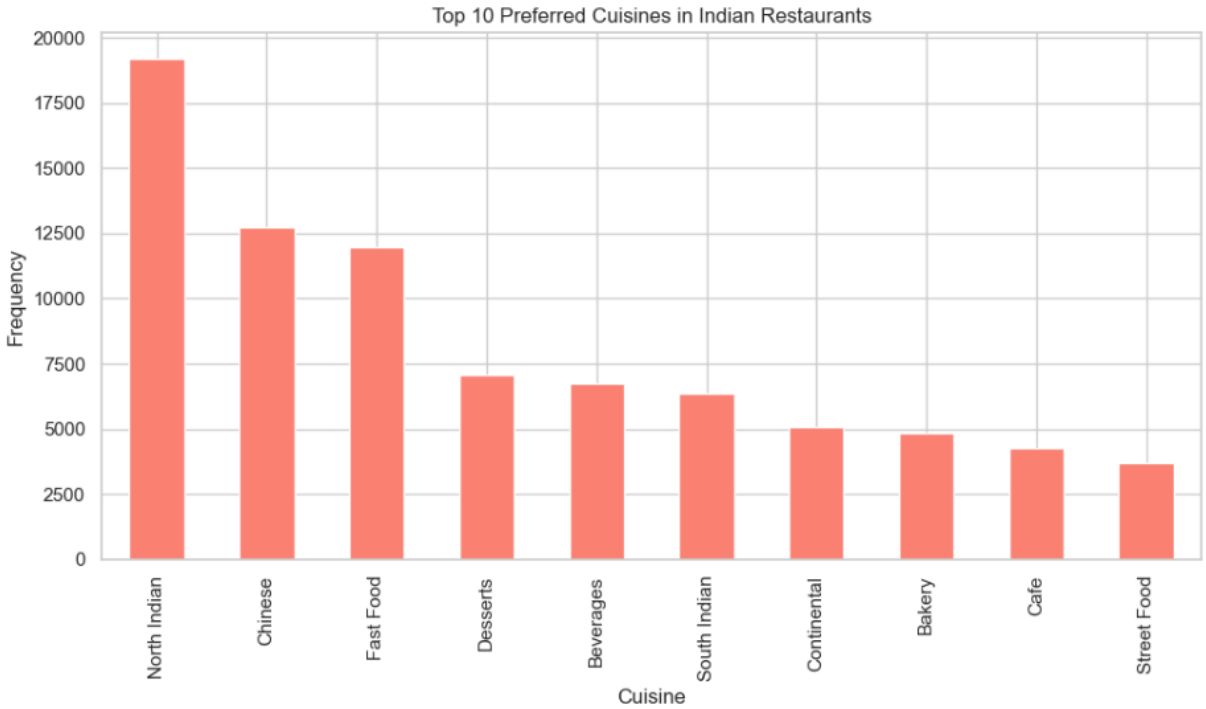
Urban vs. Rural Dynamics: A higher count of restaurants in a city typically signifies an urban setting, possibly indicating greater population density, a bustling food scene, or an increased dining-out culture.

Market Potential: Cities with fewer restaurants could signify untapped markets or lower competition, presenting growth opportunities for a restaurant chain. Conversely, cities with numerous restaurants suggest a strong demand for dining, albeit with heightened competition.

Cultural and Economic Significance: The prevalence of restaurants in specific cities might be influenced by cultural diversity, economic prosperity, or tourist appeal. Cities known for diverse cuisine or tourism might naturally host a larger number of dining establishments.

Regional Dining Preferences: By considering cuisine types or restaurant themes, insights into regional culinary inclinations can be inferred based on restaurant concentrations in particular cities.

However, it's important to note that while restaurant counts offer a glimpse into distribution, they don't encompass aspects like quality, popularity, or profitability. For a comprehensive analysis, additional data such as customer ratings, revenue averages, or foot traffic would be beneficial.



The prevalence of North Indian cuisine, surpassing 17,500 occurrences, followed closely by Chinese cuisine at approximately 12,500, as well as fast food, desserts, and street food cuisines, hints at India's diverse culinary landscape.

Regional Preference: North Indian cuisine holds significant cultural importance across India, celebrated for its rich flavours, spices, and traditional cooking methods, contributing to its widespread acceptance.

Historical Influence: Chinese cuisine's popularity, stemming from historical connections and immigration, has led towards the blending of Indian and Chinese flavours to cater to local tastes.

Changing Lifestyles: The frequency of fast food, desserts, and street food, indicative of approximately 12,500, 7,000 and 3,000 occurrences respectively, reflects changing urban lifestyles, emphasising quick, convenient dining options.

Desserts and Street Food Culture: With street food and desserts closely following, with around 3,000 to 7,000 occurrences, these categories underscore the Indian's love for diverse, and affordable culinary experiences.

The way people like to eat in India shows their favourite flavours, and it comes from a mix of old, local, and worldwide tastes. It makes India's food culture exciting and diverse.

5. Customer Preference Analysis

The exploratory analysis also enlightened interesting facts. The cost of eating at these restaurants ranges from a little over 1 to a little over 2, which means they have prices for different budgets.
The ratings people gave these restaurants went from about 0.38 to about 3.21. This shows that people have different opinions about how good these places are. We noticed that restaurants with higher ratings are usually more popular, which means more people like to order their food. Positive reviews from customers can make a restaurant more popular.

Also, some people think that if a restaurant costs more, it must be better. But that's not always true. What matters is that you get good food and service for the money you spend.

To understand these numbers better, we need to do a more detailed analysis with math. But for now, we can say that when people like a restaurant a lot, more people go there. And sometimes, people think expensive places are better, but it's not always the case. The most important thing is that you enjoy your meal and have a good time, no matter how much you spend.

Ultimately, this relationship between ratings, price range, and popularity is a blend of customer perception, quality of service, and market dynamics. Analysing these connections helps restaurants align their offerings to meet customer expectations, ensuring a positive experience that drives both ratings and popularity.

6. Competitive Analysis

11th Avenue Cafe Bistro, 60's Beatles Cafe, 99 Rotiwala, Aar Kay Vaishno Dhaba, and Adda Unplugged are the top five places in this Zomato case study. These places strike a great balance; they've got high ratings and reasonable prices. These spots score well, between 4.0 to 4.3 on average, which means people love what they offer; great food, service, or ambience that keeps customers happy.

Despite their high ratings, they keep prices reasonable, ranging from 1.0 to 2.0 on average. So, they're not just good, they're affordable too. In the analysis and marketing plan, these places are like shining examples. They show how to keep customers happy without breaking the bank. Here's why they're important:
Studying these places can teach a lot about what makes customers happy without charging too much. In short, these top-rated, wallet-friendly spots are not just good places to eat, they're a smart way to guide decisions and make our brand stand out in the crowd.
When analyzing the weakness of competitors, i.e. the low ratings and limited cuisines, the average ratings of these establishments can be seen to range from 3.2 to 3.4. A2B- Adyar Ananda Bhavan, Abbiocco - Hotel Brahma Horizon, Amigos Grill Cafe, and Cafe Nirvana are the competitors in question. These figures give us a sense of what customers value and where these places might need improvement. It's crucial information to ensure our food chain prioritizes customer satisfaction from the get-go.

Identifying Niche Opportunities: These spots offer just one cuisine each. Seeing this limited variety, ranging from 1 cuisine for each, shows us potential gaps in the market. It's an opportunity for our food chain to step in and offer a diverse menu, addressing the need for more options in the market.

Strategic Differentiation: Knowing the factors contributing to lower ratings or limited offerings is key. It ranges from an average rating of 3.2 to 3.4 and offers just one type of cuisine. This insight allows us to position ourselves strategically. We can highlight our strengths in areas where these places fall short, presenting our food chain as a more appealing choice for potential customers.

In essence, these stats serve as our guidebook. They provide insights into customer preferences, show us where the market lacks variety, and help us carve out our unique space in the food industry.

7. Market Gap Analysis

Discovering new opportunities is vital for restaurants to expand and thrive. It involves exploring various aspects of different places and people's preferences. Looking at places with fewer restaurants can help us expand and serve more people who need more options. We can notice what kinds of food people like more and adapt our menus to match what they want. Offering a variety of foods from different cultures can attract more customers who like different tastes. People are looking for healthier food, so we can make menus with more nutritious options to attract health-conscious customers.

We can use things like online ordering and delivery services to make it easier for customers to order from us. In places with lots of tourists, we can create menus that appeal to both locals and visitors. Partnering with local suppliers or farmers can help us create unique dishes and support local businesses. By understanding these aspects, we can find new ways to grow our business and offer what people want, making our restaurants more successful.

Underrepresented Cuisines:

The data shows cuisines with very few occurrences in the dataset, each represented just once. These cuisines include Wraps, Mangalorean, Greek, Steak, Malwani, Middle Eastern, French, Kashmiri, Parsi, and Afghan. Their low count indicates a limited representation within the restaurants covered in this dataset.

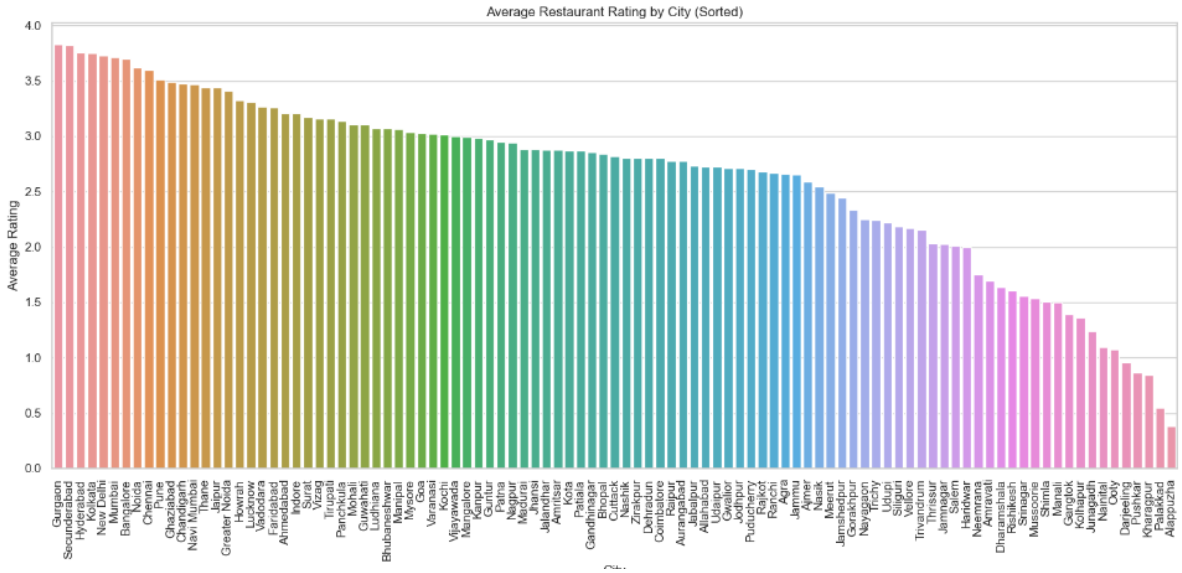
These statistics highlight restaurants with a higher price range (indicated by numbers such as 3.0 or 4.0). Some of these restaurants include AB's - Absolute Barbecues, Abbiocco - Hotel Brahma Horizon, Al Arabian Express, Ambrai - Amet Haveli, Amigo's, Wake & Bake, Warehouse Cafe, Yanki Sizzlers, Zeeshan Restaurant - Apna Hyderabadi Food, and Zooby's Kitchen.

The first set of data indicates cuisines that are rarely represented in the dataset, potentially indicating a gap or less availability of these specific cuisines among the restaurants covered. On the other hand, the second set identifies restaurants with a higher pricing range, suggesting a segment of the market catering to a relatively upscale or higher-priced food experience. Identifying these gaps or less represented cuisines and higher-priced options can help in strategizing offerings or exploring opportunities to introduce these cuisines or price segments into the market.

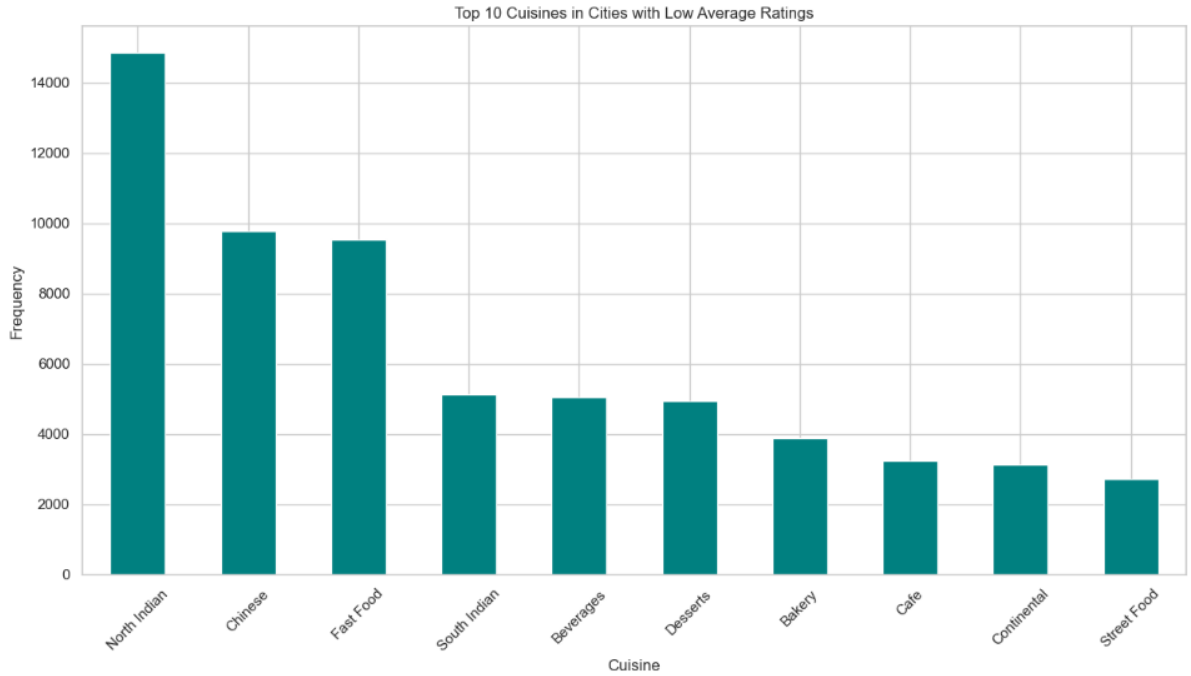
8. Designing the Marketing Campaign**

Targeting Different Regions:

The below chart identifies that there are regions which need more focus. The lower rating areas show potential for creating more value in terms of service and food quality. Our promotional activities should focus on quality and price to attract more customers in these cities.



From the below graph, it is evident that North Indian, Chinese, and Fast Food are the most common food categories ordered in cities where ratings are below average. We can make bundles of mixed flavours with quality and hygiene to rank higher in terms of rating. Since the higher rating attracts more customers, the result will increase the probability of higher revenues and customer preferences. Additionally, underrated cuisines can be introduced with tailored flavours to increase assortment and variety.



Customer Segment Focus:
Leverage Zomato's demographic insights and user behaviour data to identify and segment customer groups, such as families, young professionals, or specific cultural communities. Conduct clustering analysis to understand preferences within these segments and align menu offerings, pricing strategies, and promotional activities accordingly.

Differentiation Strategies:
Employ competitive analysis tools on Zomato to evaluate competitors' menus, pricing, and customer reviews. Identify gaps or unique selling points and develop exclusive dishes or experiences. Utilize data-driven insights to create offerings that stand out, considering factors like dietary trends, novelty, or cultural authenticity.

Promotional Tactics:
Analyze Zomato's user engagement metrics, such as click-through rates and user interactions with promotions, to assess the effectiveness of different promotional strategies. Utilize A/B testing for promotions and discounts to determine the most compelling offers. Additionally, leverage Zomato's event tracking data to plan and execute special events that drive user engagement.

Digital Marketing:
Utilize Zomato's platform analytics to understand user behaviour patterns, preferences, and popular dishes based on reviews and ratings. Employ sentiment analysis to gauge user sentiment towards the restaurant and its offerings. Craft social media content, leveraging positive reviews and popular dishes on Zomato, to drive engagement and encourage user-generated content.

Zomato-Specific Strategies:
Optimize the Zomato business profile by ensuring completeness and accuracy of information, using high-quality images, and regularly updating menus. Monitor Zomato reviews in real-time using sentiment analysis to promptly respond to customer feedback, both positive and

negative. Leverage Zomato Ads to enhance visibility and reach a targeted audience within the platform.

Data-Driven Decision-Making:
Consistently collect and analyze Zomato's data metrics to derive actionable insights. Employ data visualization techniques to present findings effectively, aiding in informed decision-making. Implement a feedback loop to continuously refine strategies based on real-time data analytics and market trends observed on Zomato.

Marketing Budget:

Marketing Budget				
Total Budget	$ 10,000			
Exchange Rate	₹82			
Total Budget	₹820,000			
Mode	**Online**		**Offline**	
Activities	**USD**	**In Rupee**	**USD**	**In Rupee**
Social Media	$ 2,500	₹205,000		
Google Ads	$ 1,500	₹123,000		
Zomato Sponsored Listing	$ 1,000	₹82,000		
Influencer Marketing	$ 500	₹41,000		
Local Events			$ 3,000	₹246,000
Print Media			$ 1,000	₹82,000
Contingency	$ 250	₹20,500	$ 250	₹20,500
Total	**$ 5,750**	**$ 471,500**	**$ 4,250**	**$ 348,500**

9. Conclusion

After working on this data, we can conclude the following things:-

- Approx. 35% of restaurants in India are part of some chain.
- Domino's Pizza, Cafe Coffee Day, and KFC are the biggest fast food chains in the country with the most number of outlets.
- Barbecues and Grill food chains have the highest average ratings than other types of restaurants.
- Quick bites and casual dining type of establishments have the most number of outlets.
- Establishments with alcohol availability have the highest average ratings, votes, and photo uploads.

- Banglore has the most number of restaurants.
- Gurgaon has the highest-rated restaurants (average 3.83) whereas Hyderabad has a higher number of critics (votes). Mumbai and New Delhi dominate for most photo uploads per outlet
- After North India, Chinese is the most preferred cuisine in India.
- International cuisines are better rated than local cuisines.
- Gastro pub, Romantic Dining, and Craft Beer features are well-rated by customers.
- Most restaurants are rated between 3 and 4.
- The majority of restaurants are budget-friendly with an average cost of two between Rs.250 to Rs.800.
- There are less number of restaurants at higher price ranges.
- As the average cost of two increases, the chance of a restaurant having a higher rating increases.

Recommendations:

- Further analysis could explore the specific factors that contribute to higher ratings in higher price ranges.
- Insights could inform strategies for restaurants to improve customer satisfaction and ratings, regardless of price point.
- Considerations for consumers might include:
- Balancing price expectations with desired quality and experience.
- Reading reviews and researching restaurants before making choices.
- Being open to exploring options across different price ranges.