

Zomato Bangalore Restaurant Analysis

Problem statement:

Analyse the given data having user reviews and other information of restaurants. Perform an EDA to find out useful insights to improve overall restaurant experience in Bengaluru.

Tools used:

1. Python
2. Google Colab
3. Pandas
4. Numpy
5. Matplotlib
6. Seaborn
7. Machine Learning (Optional)

Firstly, the dataset was loaded into the pandas dataframe. Subsequently, I made some observations regarding the features which were available, missing values in these features/columns, the data types that were present and the shape of the dataset.

Features:

'Unnamed: 0', 'name', 'online_order', 'book_table', 'rate', 'votes',
'location', 'rest_type', 'dish_liked', 'cuisines',
'approx_cost(for two people)', 'reviews_list', 'menu_item',
'listed_in(type)', 'listed_in(city)'

Missing values:

Rate - 299
rest_type - 17

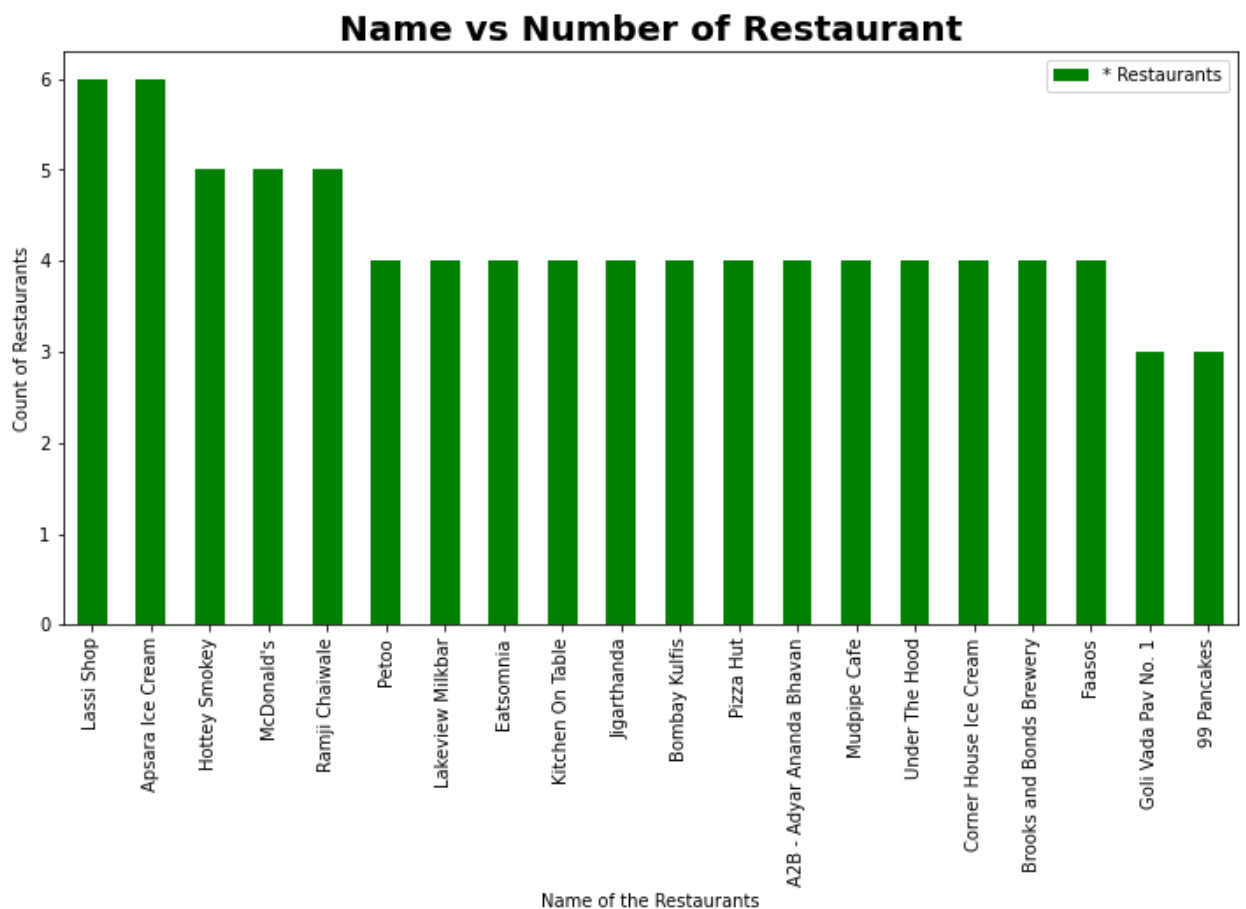
dish_liked - 1107

approx_cost(for two people) - 16

Rest of the features did not have any missing values. The dataset consisted of 2069 entries and 15 columns. All the data cleaning and preprocessing has been done in the notebook (with comments).

Feature Engineering:

I. Name of the restaurant

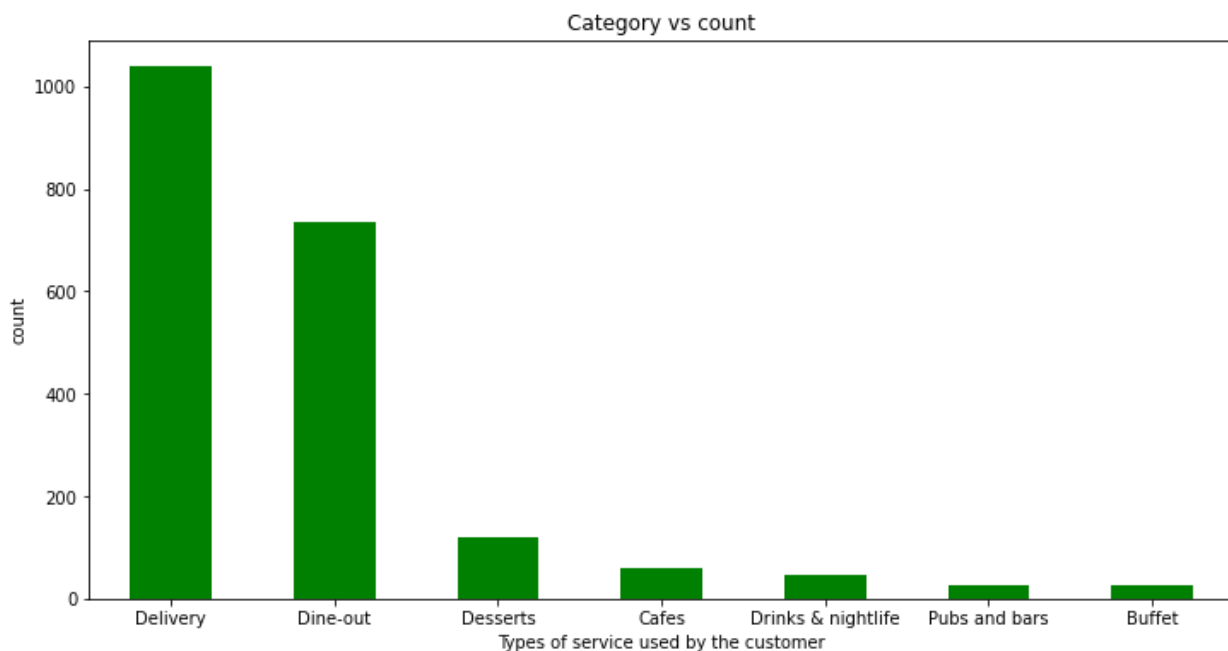


- 1) The feature name shows us the name of the restaurants in Bangalore and the number of branches that they operate. Lassi Shop and Apsara Ice Cream are the ones with the maximum number of branches, i.e., 6.
- 2) It will be worth seeing the correlation between the number of branches vs most popular localities in Bangalore.

II. Category_Type

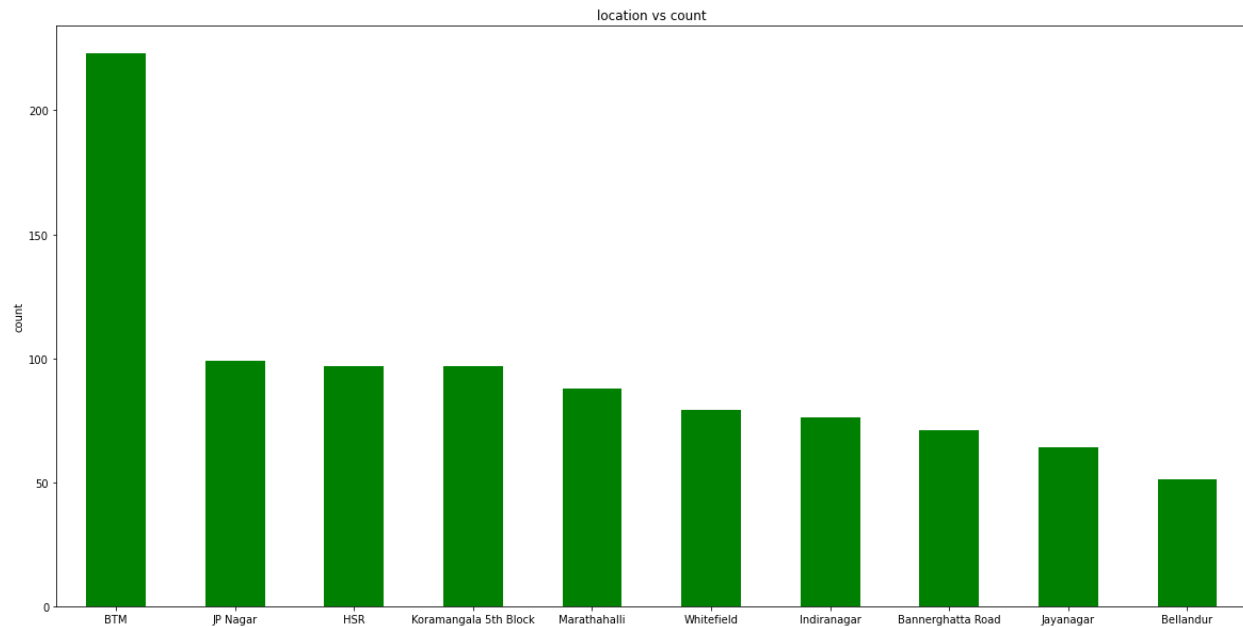
1. This feature is representing the types of service that the customers use the most.
2. By using value_counts() and visualizing the categories we made following observations:

- Delivery - 1039
- Dine-out - 734
- Desserts - 121
- Cafes - 60
- Drinks & nightlife - 46

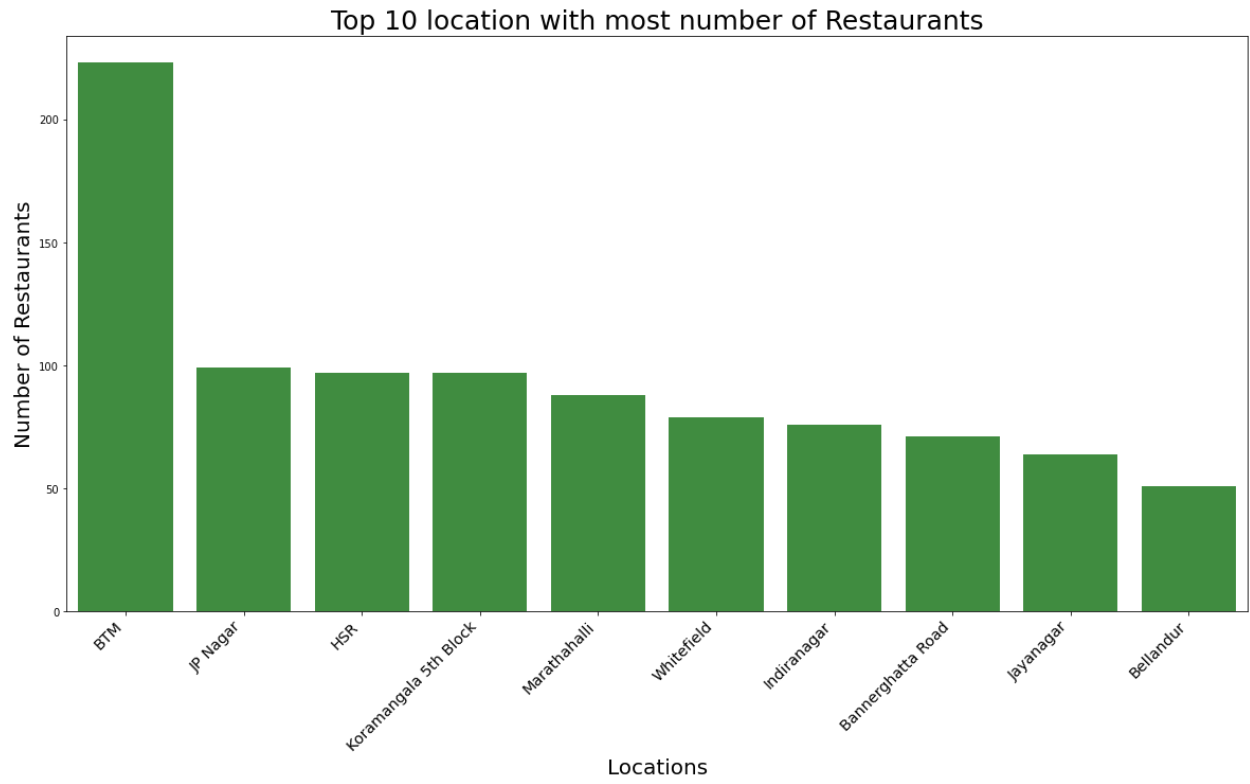


3. 1039 customers use delivery, which is the most used service by the customers. This shows a very good observation that if the restaurants are providing delivery service then the restaurants have a higher chance of expanding their business. This feature is clearly attracting the customers.
4. With delivery partners like Zomoto and Swiggy, it is not even required to set up a delivery team. Plus you can expand your network beyond your area.

III. Location of the restaurant



1. Location of the restaurant plays a very important role for the business to grow. The bar plot states that BTM, JP nagar and HSR are the three locations which have the maximum number of restaurants.
2. We also need to see this for the perspective of someone who is trying to establish a new restaurant and the competition can be challenging for the business to grow in areas with such numbers. Pre-established restaurants will tend to hold an advantage of being popular in the area and it will be difficult to break through in such an environment.

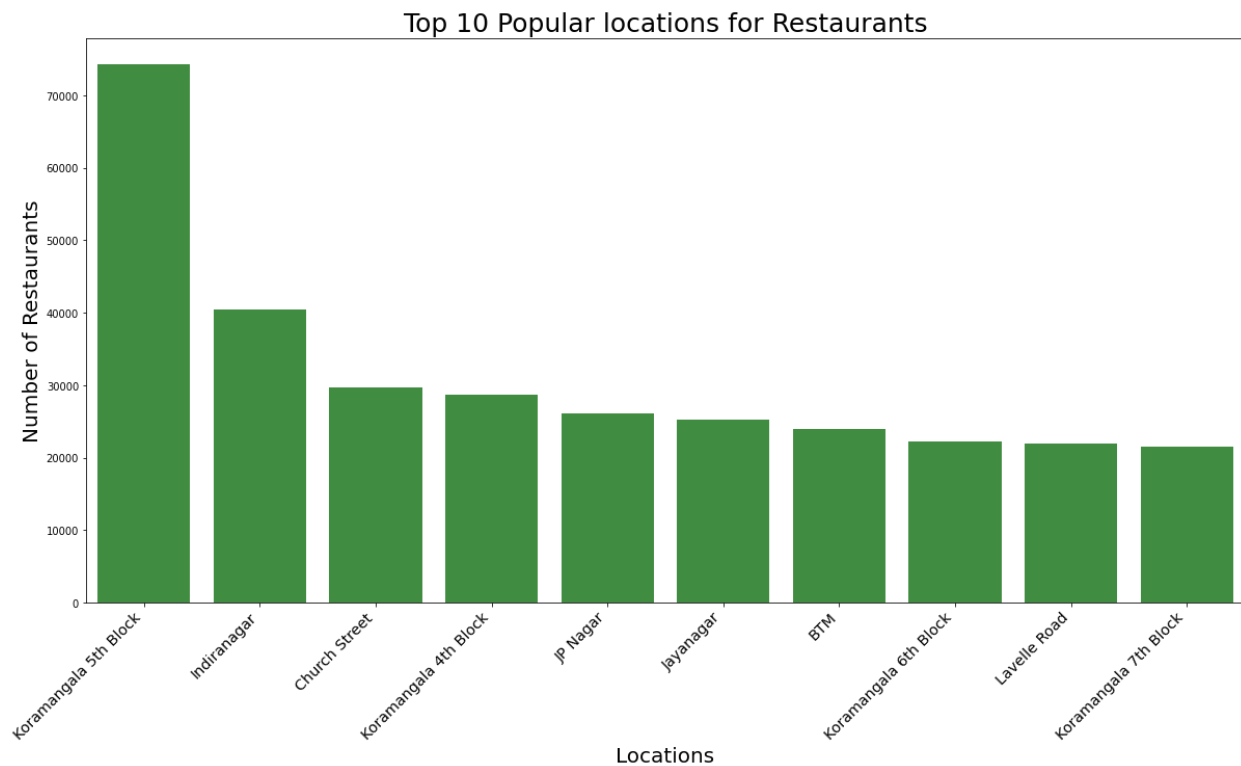


IV. Location with the most unique restaurants



- If we look at the bar plot above, we can see BTM has the most unique restaurants followed by HSR and JP nagar.

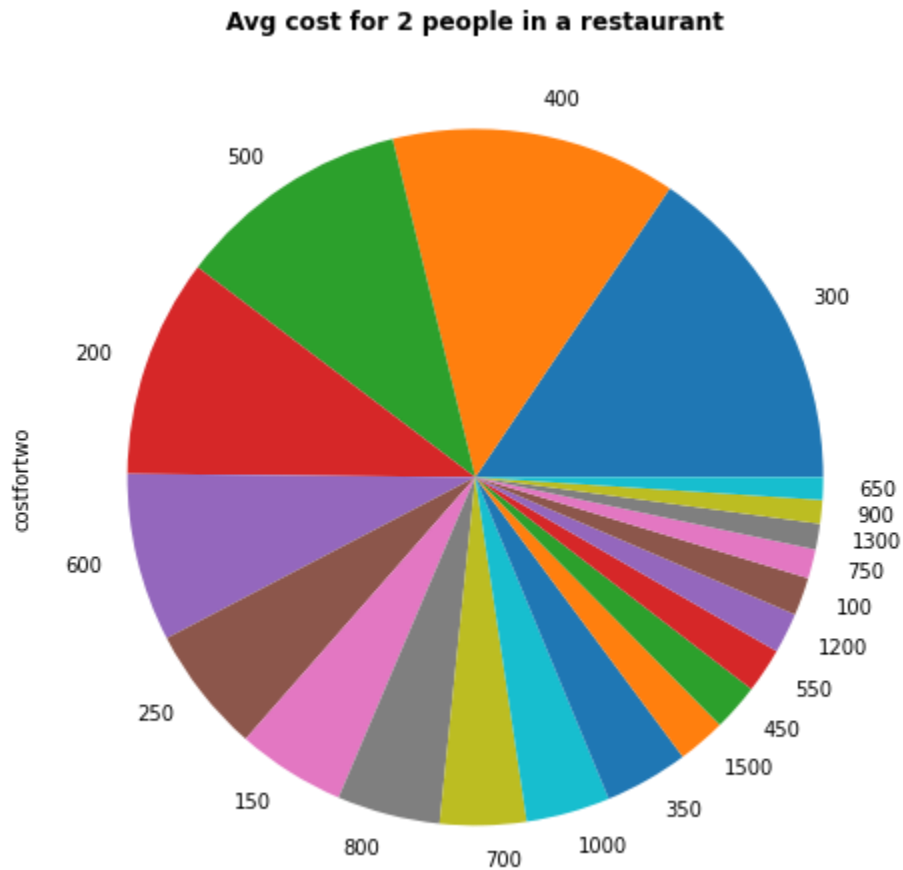
V. Popularity

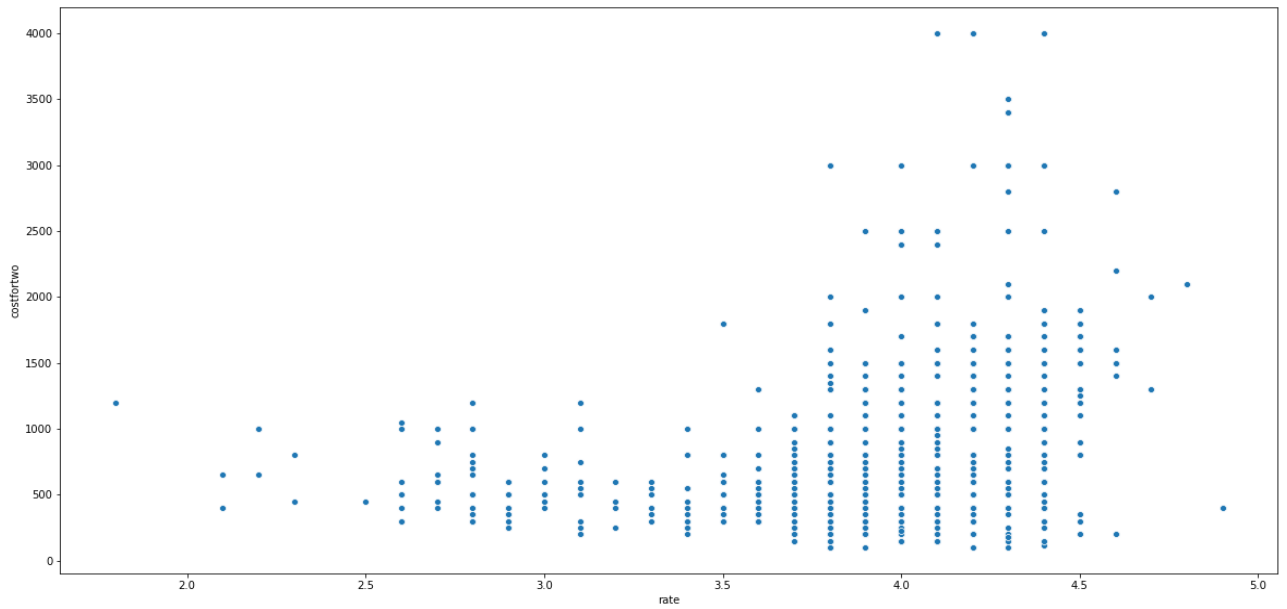


1. Another factor that is very important to draw conclusions and make an observation is popularity.
2. Popularity is a very important metric to push the chances of profit for your restaurant. Koramangala is one of the most famous spots for foodies and a restaurant. It can attract a lot of crowds if the idea is pitched well.
3. Keeping in mind that this is a very popular area so the investment can be a bit heavy but popularity metric is surely a worthy reason to invest.
4. Looking at another factor that Koramangala does not offer a lot of unique restaurants with diverse cuisine, it can be a good insight to know the most popular food items in Bangalore and make something around that.

VI. Cost for two

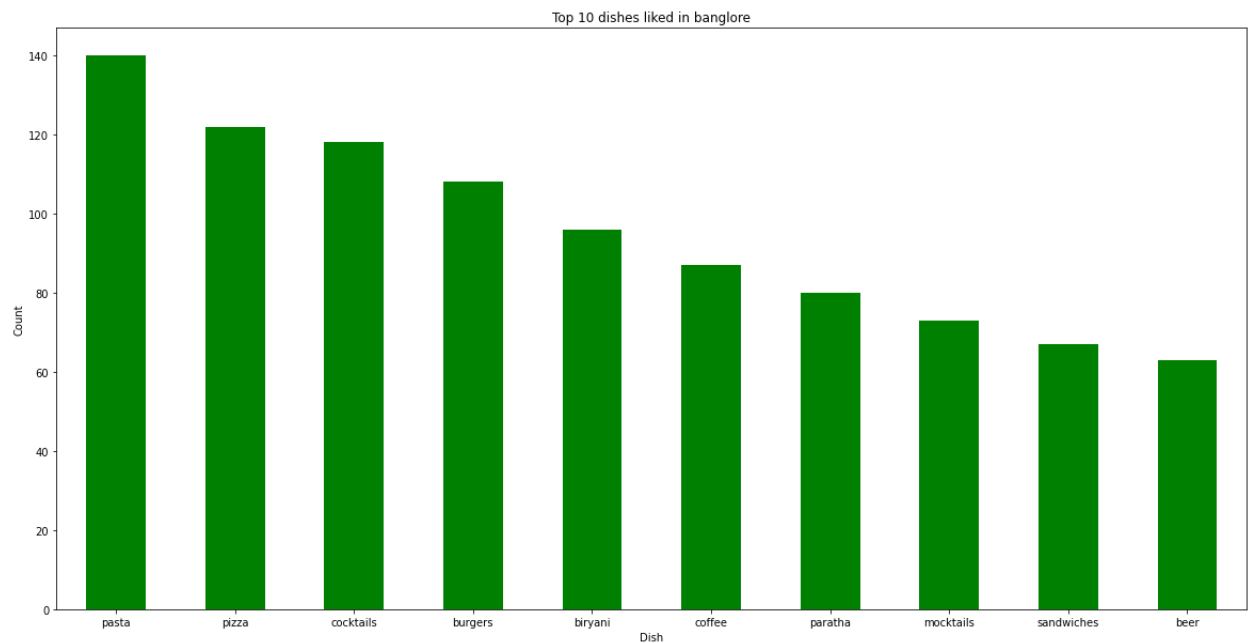
1. Most of the customers do consider the cost factor. Bangalore consists of a lot of students and working professionals who have a budget to follow. This factor is very important to be considered as price is a factor which people will look at while browsing the restaurants.
2. The pie chart below shows that the average cost for two in restaurants is 300 INR.





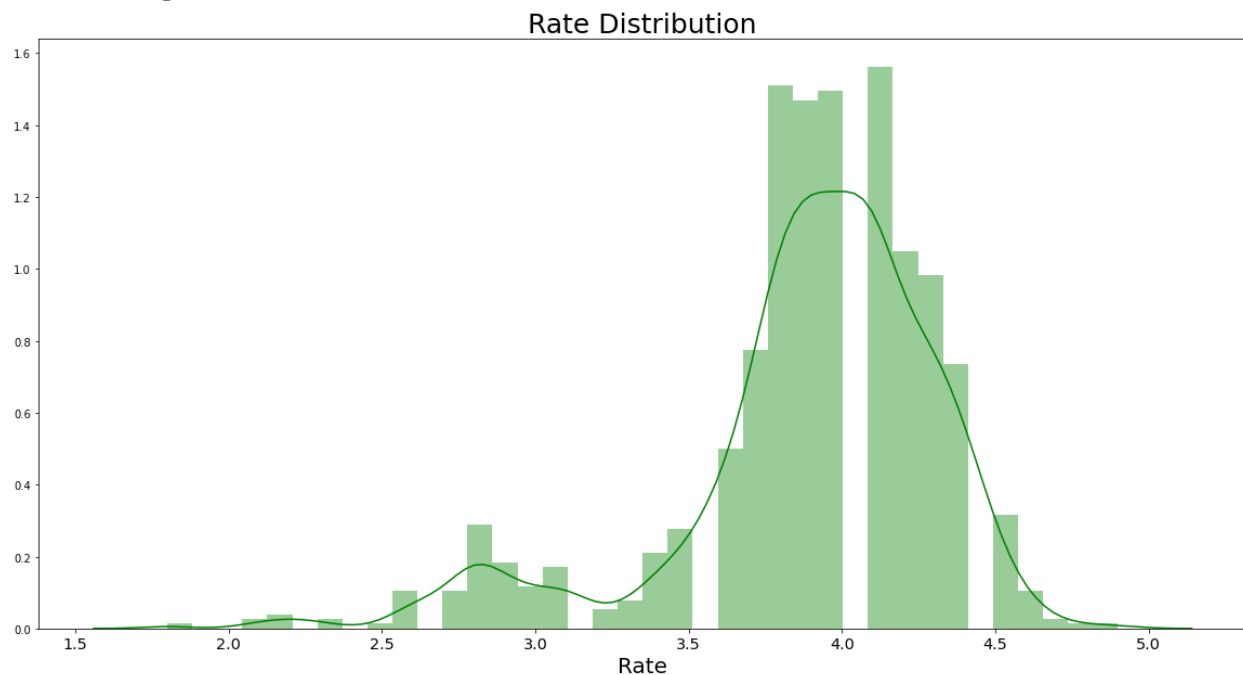
3. If we see the scatter plot above, we can see that most of the restaurants offer the range of 1500 INR for two which is a fair amount. This will be the ideal range to consider in the start for the best results.

VII. The most liked dishes in Bangalore

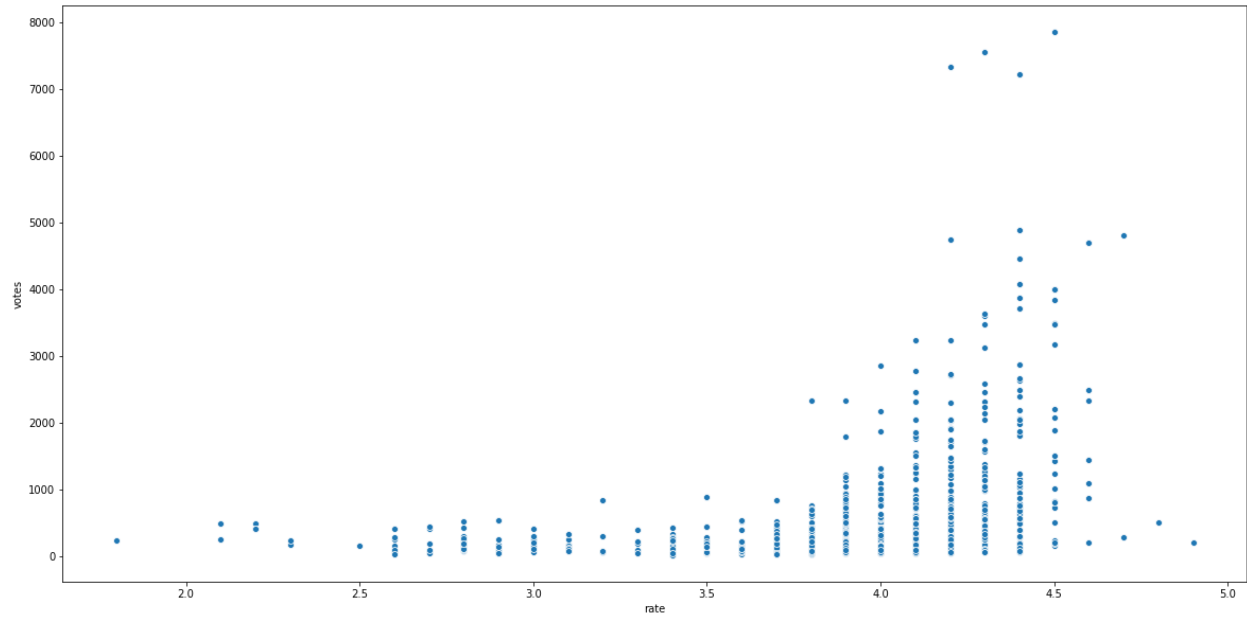


1. Bangalore is a place of youth and fast food is a popular choice. Pasta is the most liked dish in Bangalore, followed by pizza and cocktails.
2. Italian cafes can be a popular choice when setting up a new restaurant.
3. Another observation is that beer is the least liked item in the list and if we correlate this with the Drinks & nightlife then it is clear that it is not worth it to invest in a bar or a nightclub.

VIII. Rating



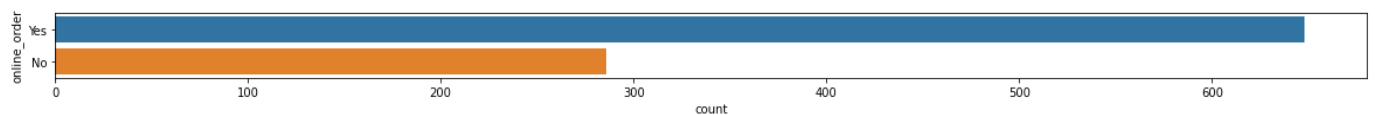
1. Approximately 50% of the distribution lies in between 3.8 and 4.2 with an average rating of 4.0.
2. Rating of a restaurant plays a major role in general because it is one of the main factors to be considered before visiting a restaurant.
3. A good rating will clearly attract more customers and it is very important to maintain it to run a successful business.



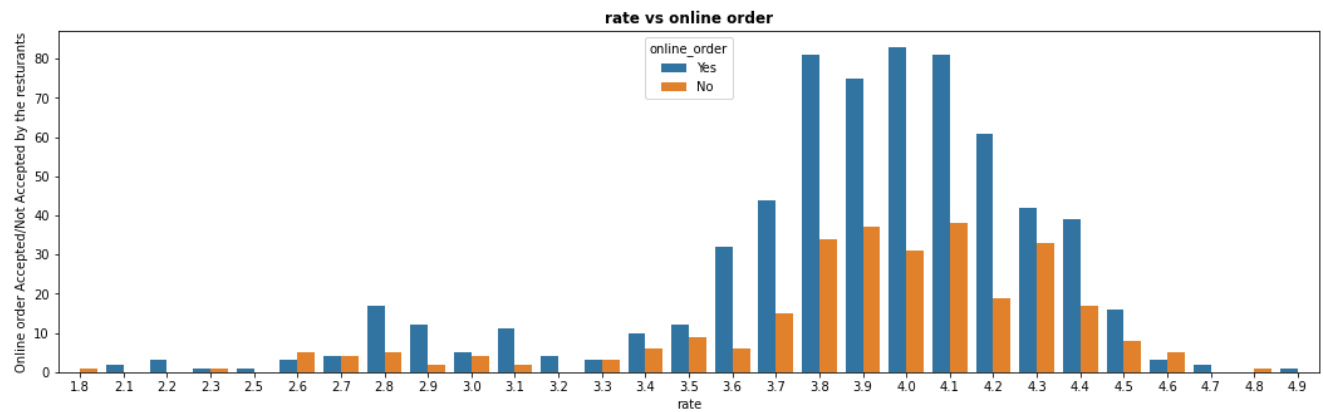
1. The scatter plot above clearly states that the greater the number of votes, greater will be the chance for the restaurant to have a good rating.
2. Feedback forms or offers can increase the popularity of the restaurant which can attract more people to use your service.

IX. Online order

1. We live in an era where almost everything is online. A lot of people use apps like Zomato and Swiggy to order food from the restaurants.
2. Having the option to get the food home or order in advance for dine in a plus point for any restaurant.

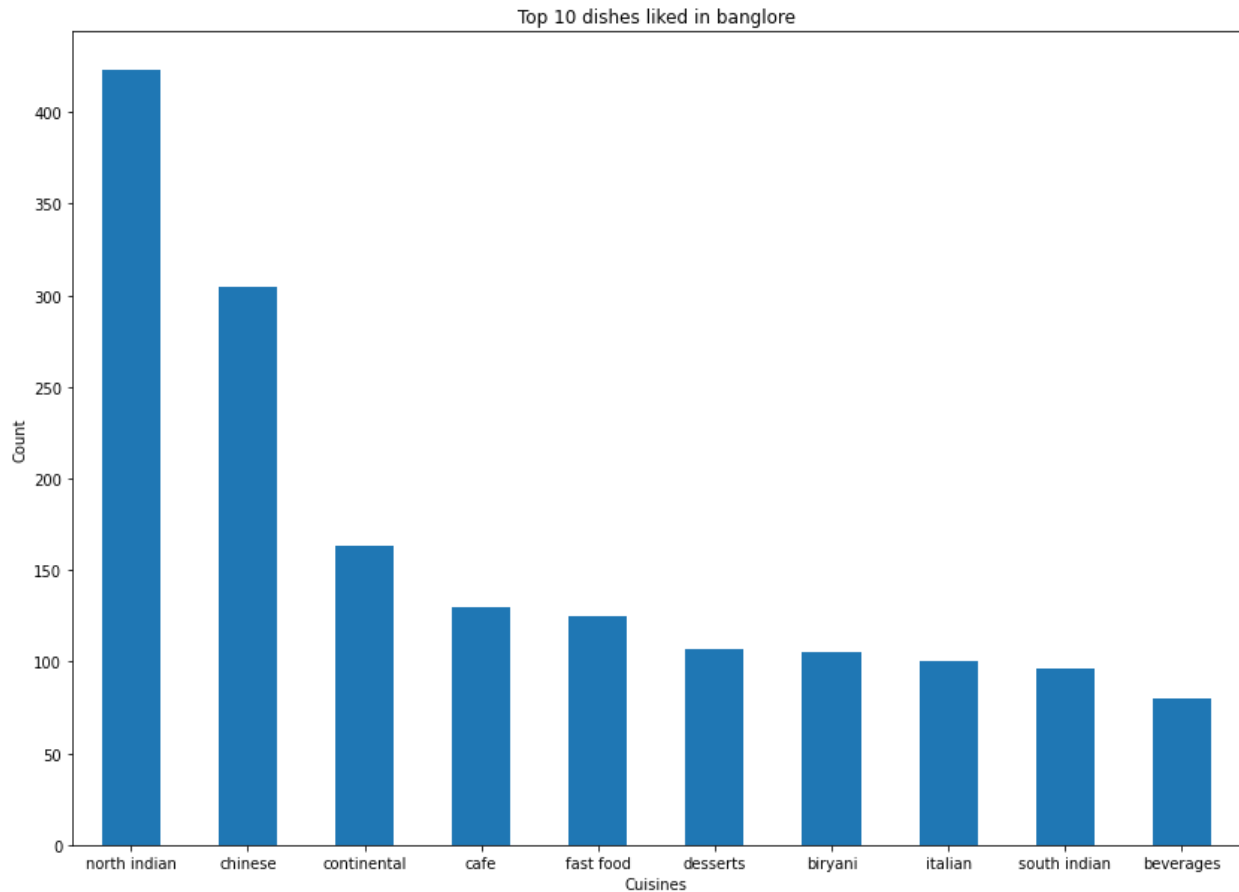


3. If we look at the number, 648 restaurants are accepting online orders and on the other hand 286 are not accepting it.



4. The restaurants accepting orders online are having a better rating as compared to the restaurants which are not providing the online order service.
5. It is clearly stated previously, how important it is to have a good rating and how much it impacts the profit of a restaurant if the rating goes down. It is very clear that online order service along with delivery should be a good combination for a restaurant to grow.

X. Cuisines



1. Bangalore is a multicultural city which has people from every part of the country. A lot of people from North India move to Bangalore for studies or work.
2. North Indian cuisine is the most liked cuisine in Bangalore and having a restaurant which offers North Indian food as well can be a great point to attract a North Indian crowd who are fond of eating that specific kind of food.

Conclusion

Main observations and insights:

1. Delivery is the most used service by the customers. This feature is very essential and will attract more customers.
2. Popularity is a very important metric to push the chances of profit for your restaurant. Koramangala is one of the most famous spots for foodies and a restaurant. It can attract a lot of crowds if the idea is pitched well.
3. The range of 1500 INR for two should be the ideal range to consider in the start for the best results.

4. Fast food is a popular choice. Pasta is the most liked dish in Bangalore, followed by pizza and cocktails. These dishes should be served in the restaurant.
5. Beer is the least liked item in the list and if we correlate this with the Drinks & nightlife then it is clear that it is not worth it to invest in a bar or a nightclub.
6. Rating of a restaurant plays a major role. It should always be maintained on a higher level.
7. Restaurants which received more votes have a higher rating. Feedback forms and reviews should always be encouraged.
8. Online order impacts the ratings as per the observations. This service will work along with another service which is delivery. Delivery is the most used service according to the data and online order work hand to hand with it.
9. North Indian cuisine is the most liked cuisine in Bangalore. It should be on the menu to attract more customers.

Starting a new business involves a lot of hard work and dedication. The aforementioned observations and insights that I have noted from the given data can be beneficial in establishing a successful restaurant business.