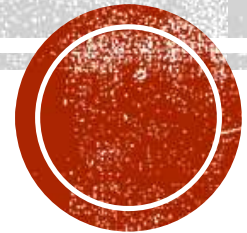


BEST NEIGHBORHOOD FOR STARTING COFFEE SHOP

By Mohammad Omar Faruque



FINDING SUITABLE NEIGHBORHOOD FOR OPENING A COFFEE SHOP

- Neighborhood with high number of coffee shop will have more competition.
- Neighborhood with high number of coffee shop will have less profit because of existing competition.
- Finding Neighborhood with business growing opportunity.
- Finding Neighborhood with business friendly environment.



BUSINESS PROBLEM

- Location of the coffee shop is one of the most important decisions that will determine whether the coffee shop will be a success or failure.
- **Objective** : To analyze and select the best locations in the Kolkata city, India to open a new coffee shop.
- This project is timely as the city is currently suffering from oversupply of coffee shops.
- Business Question:

In the Kolkata city – INDIA, if a entrepreneur is looking to open a new coffee shop, where would we can recommend that they open a coffee shop?



DATA

- **Data Required :**

- List of neighborhoods in Kolkata city.
- Latitude & Longitude coordinates of the neighborhoods.
- Venue data, particularly data related to shopping malls.

- **Sources of Data :**

- Wikipedia page for neighborhoods
([https://en.wikipedia.org/wiki/Category:Neighbourhoods in Kolkata](https://en.wikipedia.org/wiki/Category:Neighbourhoods_in_Kolkata)).
- Geocoder package for latitude and longitude coordinates.
- Foursquare API for venue data.



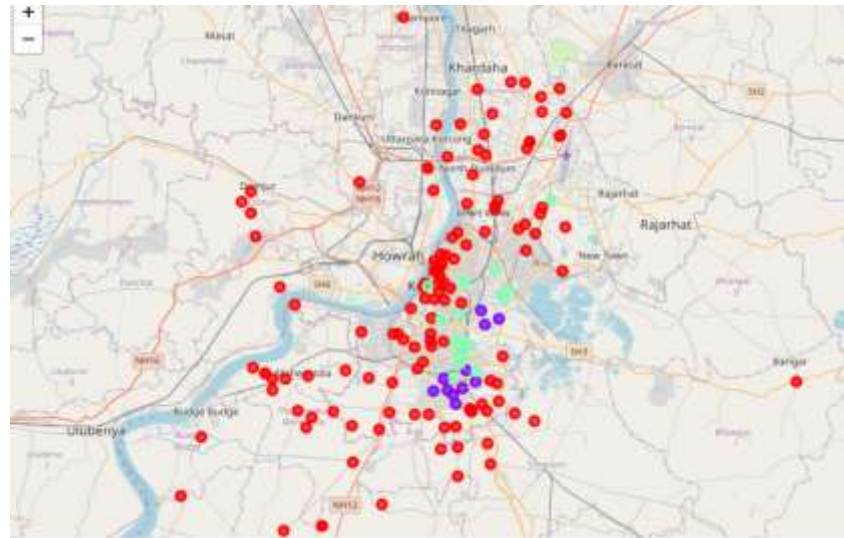
METHODOLOGY

- Web scraping Wikipedia page for neighborhoods list.
- Get latitude and longitude coordinates using Geocoder.
- Use Foursquare API to get venue data.
- Group data by neighborhood and taking the mean of the frequency of occurrence of each venue category.
- Filter venue category by Coffee Shop.
- Perform clustering on the data by using k-means clustering.
- Visualize the clusters in a map using Folium.



RESULTS

- Categorized the neighborhoods into 3 clusters :
 - Cluster 0 : Neighborhoods with less number of coffee shops.
 - Cluster 1 : Neighborhoods with moderate number of coffee shops.
 - Cluster 2 : Neighborhoods with highest number of coffee shops.



DISCUSSION

- Most of the coffee shops are centralized in the mainland city.
- Maximum number in cluster 2 and moderate number in cluster 1.
- Cluster 0 has very less number to no coffee shop in the neighborhoods.
- It shows central area of city are flooded with restaurants, café's, bakeries, with the neighborhood still have few coffee shops.
- So we have to work keeping in mind that new entrepreneurs, or any food chain company can open new coffee chain shop in the areas of cluster 0.



RECOMMENDATIONS & CONCLUSION

- Opening new coffee shop in the areas or neighborhoods of cluster 0 with little or no competition.
- Can consider opening coffee shop in the neighborhood I cluster 1 with moderate competition.
- Shouldn't think of opening coffee shop in the area of cluster 2 as it is already flooded with high competition.
- So Conclusion is The Neighborhoods in cluster 0 is more suitable to open a coffee shop.
- Outcome of this project is to show relevant entrepreneurs or stakeholders to capitalize on the opportunities to open a new coffee shop avoiding the over competitive areas and launching business at preferred neighborhood.



