

The Battle of the Neighborhoods-New York City

Introduction & Business Problem :

Background

The city of New York is the most populated city in the country which provides a lot of opportunities to entrepreneurs and businessmen. Through the opportunities are high the market is highly competitive and needs a detailed analysis before stepping to a new business.

This project provides a detailed study to open a restaurant in the city at a location so that the income/profit from the same can be increased. The different factors affecting profit, competency and population are analysed in detail to suggest an exact location to start the restaurant

Problem Description

The location of the restaurant has a great impact on the profit/income earned from that. In general quality and variety of dishes, parking area and population and all have a great impact on this. The aim of this project is to suggest a suitable location to open a restaurant in New York City.

The data including Population, Cuisine, Availability of nearby restaurants, Type of offices/institutions nearby, Market etc. are analysed to predict the suitable location to open a restaurant

Target Category

Anyone who like to open a restaurant in New York City

Success Criteria

The success criteria of the project will be a good recommendation of borough/Neighborhood choice to anyone based on Lack of such restaurants in that location and nearest suppliers of ingredients

Data Used

Data1: In order to segment the neighborhoods and explore them, we will essentially need a dataset that contains the 5 boroughs and the neighborhoods that exist in each borough as well as the the latitude and longitude coordinates of each neighborhood

Link: https://geo.nyu.edu/catalog/nyu_2451_34572

Data2: Farmers Market and food basket data in the city

Farmers Market data is available in the link <https://data.cityofnewyork.us/dataset/DOHMH-Farmers-Markets-and-Food-Boxes/8vwk-6iz2>

New York Population, New York City Demographics, Cuisine of New York city, data are available at the link, Data 3 : For the below analysis we will get data from wikipedia as given below :

https://en.wikipedia.org/wiki/New_York_City

Newyork city geographical coordinates data will be utilized as input for the Foursquare API, that will be leveraged to provision venues information for each neighborhood. We will use the Foursquare API to explore neighborhoods in New York City

Methodology

Collected the population data of the city and analysed which is the most populated region

Plotted the neighbourhoods of the city based on its locational information

The main analysis is based on the type of restaurant going to open, clustering ins made based on the restaurants in the region and find out the best two clusters to open the restaurant

Result

The clustering information can be found in the Notebook

Conclusion

Analysis performed on limited data

- Re-run program with updated information
- Brooklyn and Manhattan have a high concentration of restaurant business. Very competitive market.
- Bronx, Queens and Staten Island also have good numbers of restaurants but not as many as required. So this can be explored.
- As per the neighbourhood or restaurant type mentioned like Indian Restaurant, analysis can be checked. A venue with lowest risk and competition can be identified