Where should I build my Indian or Chinese Restaurant?

Introduction

One of the things that Indians miss when they are away from home is their food and the sole reason for that is lack abundant options of Indian restaurants around them when they are abroad. And the basis of this study is to help a small group of Indians planning to open their first restaurant in Toronto. Being that Toronto is the most populated city in Canada, and continually ranks as an important global city based on a high quality of living, the choice to expand into the neighbour of the north market was an easy selection for the investing group. However, with limited knowledge of the Toronto market, the group of investors have selected us to assist in the selection of which areas of Toronto will facilitate a launch of their first restaurant.

They are interested in building in an area that meets the following criteria:

- *the habitants would like to eat in that kind of cuisines (Chinese, Indian, Indo-Chinese Fusion)*

- *the neighbourhood must be filled with a particular ethnicity*

- *they would also like to know possible location-wise opportunities if they decide to launch an Indo-Chinese Fusion restaurant.*

Business Problem Statement

1. What is the best location/ethnicity for an Indian/Chinese restaurant in Toronto?
2. In what Neighbourhood should I open an Indian/ Chinese restaurant to have the best chance of being successful?
3. What is the best location if I want to launch an Indo/Chinese restaurant?

Target Audience

Small groups of Indians or Chinese planning to open their first restaurant in Toronto

Data Collection

For this project we need the following data:

1. Toronto data that contains Borough, Neighbourhoods along with there latitudes and longitudes

* Data Source: https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M

* Description: This data set contains the required information. And we will use this data set to explore various neighbourhoods of Toronto.

2. Indian restaurants in neighbourhood of Toronto.

* Data Source: Foursquare API

* Description: By using this API we will get all the venues in a neighbourhood. We can filter these venues to get only Indian restaurants.

Methodology

Collect the Toronto data

from https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M

* Using Foursquare API we will get all venues for each neighbourhood.

* Filter out all venues which are Indian Restaurants.

* Data Visualization and some statistical analysis.

* Analysing using Clustering (Specially K-Means):

1. Find the best value of K

2. Visualize the neighbourhood with number of Indian, Chinese, and Indo-Chinese restaurants:

* Compare the Neighbourhoods to find the Best Place for Starting up a Restaurant

* Inference From these Results and related Conclusions