Location Analytics for Finding the Best Location for a New Restaurant in Greater Toronto Area

Introduction

Canada is a popular immigrants' destination and over the years people from all around the world have chosen it as their country of residence. One of the most important decisions they have to make while they are planning to move to Canada is to choose the city where they would like to live. The statistics available on various web-sites and forums suggest that the most preferable destination of these new immigrants is Greater Toronto Area. The rationale behind this preference is basically the comparative good weather and available opportunities for starting a new business.

The people immigrating to Canada come from different social, geographical and economic backgrounds. By nationality, Indians make a large part of these new immigrants. Apart from getting a job, these Indian nationals always look forward to start their own business. Among various business options for Indians, restaurants serving traditional Indian/Pakistani food is the most one. As there are many Indians and Pakistani immigrants living in Greater Toronto Area (GTA) who would like to savor the food of their countries of origin, this option seems economically feasible.

The next stage after having an economic feasible option for the business is to decide about the location of the restaurant. From location perspective, there are various factors that contribute to the success of a restaurant. These include the presence of your potential customer base, presence of your competitors, and crime rate in the area, foot traffic, and accessibility by public transport or availability of the parking slots, visibility of the restaurant, conditions of the lease agreement and safety conditions of the building.

The field of data science provides the tools and ability to analyze such factors and facilitate the perspective restaurant owners to find out the best location for opening the new restaurant. In this project, we would like to perform spatial analysis through the visualization of the mentioned factors, correlation analysis and cluster analysis of various factors. We will analyze the clusters and come up with the best neighborhood in the GTA for opening new restaurant that targets middle aged, and middle class Indian/Pakistani customers.

Data

We will use the restaurants data from Foursquare that we will get using Foursquare API. The list and other data relevant to the restaurants will be retrieved using Foursquare API's personal developer account that puts limits to the API calls.

Apart from the Foursquare's data, we will need the data about the neighborhood profiles of the GTA. This data is available free of cost via City of Toronto's Open Data Portal. The neighborhood profiles data is available in the CSV format and includes various social and economic factors grouped by neighborhood.