IBM Data Science Capstone Project

PRIME LOCATION TO OPEN RESTAURANT

Introduction/ Business Problem

Despite the substantial risks and the tough hours, owning a restaurant business is one of the most rewarding experiences of life. Considering the massive opportunity that the F&B industry holds, opening a restaurant can be a very lucrative business. There are many different factors that can account for a restaurant's success such as location, competition and quality of the food. This is an important question that every business owner must face when choosing whether to open a restaurant or not, as well as location of the business. Also, a lack of demand causes many restaurants to close within the first year of opening.

This aim of the project is to help facilitate the process of choosing a location and opening a restaurant for a business owner. For this project we'll try to find out the best location/ areas to open an Indian restaurant in the city of Toronto. The success of the restaurant will be determined by the location and the area where it is opened. The financial gain of the restaurant will be decreased if the there are too many Indian restaurants in the local vicinity. Additionally, starting a restaurant in a location with higher income would increase the profitability of the business over starting in a poorer area.

Data

To find the solution for the proposed business problem, we'll have to collect data from various sources:

- Population & Ethnic Distribution of Each Neighborhood (Toronto Census)
- Income Distribution of Each Neighborhood (Toronto Census)
- Number of Restaurants in Each Neighborhood (Foursquare API)
- Number of Indian Restaurants in Each Neighborhood (Foursquare API)

Toronto Census Data will help us to determine the population density, ethnic distribution and income distribution of each neighborhood. Since the problem statement is to find the prime location to open Indian restaurant, we'll focus on the data corresponding to Indian ethnicity.

The Toronto Census data is extracted from https://www.toronto.ca/city-government/dataresearch-maps/open-data/open-data-catalogue/#8c732154-5012-9afe-d0cd-ba3ffc813d5a.