Strategic Location For Establishing an Asian Restaurant In Seattle

1) Business Problem and Background

The potential success of a restaurant depends on numerous factors such as brand value, customer fidelity, demand rate and quality of food. Apart from these, Location undoubtedly plays a significant factor in this decision-making process to make the business profitable and competitive in the existing market condition. A client seeks to establish a franchised Asian restaurant in Seattle, Washington. In this project, we are seeking to find the optimal and strategic area of neighborhood based on the aforementioned factors to open this new promising business. The foundation of our reasoning will be the median income of the households by neighborhood, the number of Asians living in each neighborhood and the underlying market competition. Prospective entrepreneurs seeking to set up a new restaurant specializing in a particular niche can find the insights derived through this project compelling and can indeed reap significant benefits.

2) Data Extraction and Understanding

The dataset that we need for this project is not readily available as a coma separated file (csv) or in a structured database. As a result, we would be utilizing Data scraping techniques to extract the required data to proceed with further analysis. Web scraping deals with extracting data from a website automatically with the help of web crawlers. Web crawlers are scripts that connect to world wide web using HTTP protocols and allows them to fetch data in an automated manner. The data about the Seattle neighborhoods were scraped from the Wikipedia page (https://en.wikipedia.org/wiki/List\_of\_neighborhoods\_in\_Seattle). It contains the neighborhood names and the greater district name to which they belong. Geopy library was used for geocoding to obtain the latitudes and longitudes of each neighborhood. Furthermore, the median household income by neighborhood, neighborhood population and the percentage of Asians living in each neighborhood were scraped from another website and added to the main data frame. The restaurant data for each neighborhood was derived using the Foursquare API and was integrated with the data frame.

The data consists of the following attributes:

1. Neighborhood name - Unique name for each neighborhood of Seattle city.
2. Larger Neighborhood name - the district within which each neighborhood comes.
3. Latitude of each neighborhood.
4. Longitude of each neighborhood.
5. Median household income - Median household income of households living in each neighborhood.
6. Population - Population of each neighborhood.
7. Asians Percent - Denotes the percentage of Asians living in each neighborhood.