Capstone Project

The Battle of Neighborhoods in Houston Sushi Restaurants

1   Business Understanding

1.1   Problem Statement

A Japanese Sushi Chain Restaurant Owner wants to increase the business outside of Japan. Sushi has been one of the popular cuisines in US and known as brining a full of healthy benefit such as protein, vitamins, antioxidant, and omega 3 fatty acids. Based on her market research data, Houston has been selected to develop business opportunity in the Southern city in the United State. To understand the locations and what types of venues are available in Houston and where they are located will be essential information for business development team to select the neighborhood in Houston.

1.2   Background

Houston is the fourth most populous city in the United States with the estimated population of 2,320,268 as of July 1st, 2019. The city is in Southwest Texas and the most populous city in Texas as of July 1st, 2020 Data. This Southern City has been increasing the population growth rate 21.6% between 2010 through 2019 and expected to grow with the rate of 17.2% in 2020-2029. As you can see, there have been huge population surge in Houston over a decade and expected to continue. In 2019, Houston was ranked as the most diverse city in the United State according to the new report (https://abc13.com/houston-diverstity-most-diverse-city-in-america-the-united-states-big/5265339/. As restaurant chain owners, it's potential opportunity to increase the numbers of their restaurants in this populous and the diverse city of Houston.

2 Data Requirements

The data used in this project are:

- Foursquare API: https://api.foursquare.com

Extracting the venue information for restaurants in Houston, Foursquare API was used for this project. This data includes latitude and longitude information for each venue.

- Houston ZIP Code and latitude/longitude Information

This data was not easily obtained from websites. The data was extracted from several websites as shown below. "Houston_zip_lat_long.csv" file (Uploaded in Github) gathered and combined and evaluated for this project.

https://public.opendatasoft.com/explore/dataset/us-zip-code-latitude-and-longitude/table/

https://cohweb.houstontx.gov/ZipCodePublic/