The Battle of Neighbourhoods: Where to Open a Restaurant in Singapore?

1. Introduction

1.1. Background

Singapore, being a multi-cultured country, is famous for having various type of cuisines. There are dozens of famous food bloggers in Singapore who would try out different food outlets in Singapore and post their reviews. Each of these food bloggers could have up to hundred thousands of followers, who would not mind travelling a little further than usual to try out the tasty food.

Tourists would also travel to Singapore with the intention to try out the various type of cuisines available to complete their travel experience to Singapore.

1.2. Business Problem

Based on the statistics shared in 2016, there are a total of 7,679 food and beverage establishments, where 2,712 of them were restaurants. The operating receipts of Singapore's food and beverage establishments totalled up to $9,023 million of which $3,380 million were contributed by the restaurants.

However, with over 2,000 restaurants available in Singapore, it would be a tough decision for new restaurant owner to decided where to open a new restaurant that would allow for profit to be earned. Therefore, the objective of this project is to analyse and recommend the best location in Singapore to open a restaurant.

Few points of consideration include, but not limited to:

- Number of restaurants in the vicinity
- Rating of restaurants in the vicinity
- Price of rental

1.3. Target Audience

This project would be useful for entrepreneurs who have the intention to open a food establishment in Singapore, helping entrepreneurs to make informed decision when deciding the location of the restaurant.

2. Data

The following data sources would be used for this project.

2.1. List of Singapore MRT Stations

The data would be retrieved from Wikipedia via the following link, https://en.wikipedia.org/wiki/List_of_Singapore_MRT_stations. This table would be required to establish the possible estates for a food establishment to be opened in Singapore.

Web scraping technique would be used to extract the data from Wikipedia using BeautifulSoup package in Python.

2.2. Coordinates of Singapore MRT Stations

The geographical coordinates, latitude and longitude, of each station would then be obtained using Python Geocoder package.

2.3. Median Rentals and Vacancy of Retail Space by Locality, Quarterly

Data would be retrieved from Singapore's Public Data via the following link, https://data.gov.sg/dataset/median-rentals-and-vacancy-of-retail-space. The median rental based on contract date would be available in this table to provide target audience a rough estimate on the rental fee of the location.

The original data source consists of median rental of retail space from 2012 to 2019, however, only data from 2019 fourth quarter would be used as it is the most recent data.

2.4.   Venue Data nearby Singapore MRT Stations

Foursquare API would subsequently be used to explore the venues nearby the Singapore MRT stations, searching for the nearby food establishments and its ratings. This data would allow target audience to better understand the potential competitors should the restaurant be decided to established in the area.