Capstone Project - The Battle of Neighborhoods

Introduction/Business Problem

In 1945, Taipei was designated as a provincial municipality. Four years later, the Chinese Nationalist Government relocated to Taiwan, and Taipei became a provisional capital. From then on, its status grew more and more important. In July, 1967, Taipei became a directly-controlled municipality. Considering the city's urban development planning, Nangang Township, Jingmei Township, Muzha Township and Neihu Township of Taipei County, along with Beitou Township and Shilin Township - managed by Yangmingshan Administration Bureau - were annexed into Taipei City a year later. Meanwhile, a plan to transform Taipei into a city of 2.5 million took shape. Population grew quickly upon Taipei's status upgrade. The city's development also started to shift eastward, and the Xinyi urban center project was formulated as a result. In 1990, Taipei's administrative districts went through another reorganization: the 16 districts were restructured into 12. They are: Songshan, Xinyi, Daan, Zhongshan, Zhongzheng, Datong, Wanhua, Wenshan, Nangang, Neihu, Shilin, and Beitou.

As the largest metropolitan area in Taiwan, Taipei city itself has the population of 2.64 million (excluding two satellite cities: New Taipei city and Keelung City) to support its booming business activities. In general, Taipei city is now one of the most exotic Asian cities in many aspects and is famous for its rich and multicultural dining selection.

A catering startup team, which is going to open a restaurant in the city and target family customers with children aging from 3-9 years old, is consulting our data team to see if we can utilize geospatial and other open data to figure out the best location to run the business. Therefore, the **business problem** that we are trying to solve is <u>to find out locations with high catering business potential for the team</u>.

The outcome of analysis should include a list of suggested neighborhoods extracted from 12 boroughs and 456 neighborhoods of Taipei city. Therefore the startup team can base on the neighborhoods to decide which one is the most suitable location to run the business.

Data description

To conduct the data analysis, the data team needs to use the following data and data services:

1. 2021 February Taipei city boroughs, neighborhoods and population data.
2. 2017 Taipei city boroughs and neighborhoods income tax data.
3. Latitude and longitude data of Taipei city boroughs and neighborhoods through Geopy library.
4. Venue data of boroughs and neighborhoods through Foursquare API.

The population can be accessed at: https://data.gov.tw/dataset/136896
The annual income data can be accessed at:
https://data.gov.tw/dataset/17983

Please be noted that due to the lead time of government statistics processing and financial regulation, the 2017 Taipei city boroughs and neighborhoods income tax data is the most updated one for public usage.

Also the neighborhood data is in traditional Chinese. However it does not affect data manipulation, data analytics and visualization.