

Coursera Capston

Opening a new parking lot in Taipei



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Introduction

Taipei, officially Taipei City, is the capital of Taiwan. Located in northern Taiwan, with a total population of about 2,646,204 and density of 9,700/km². In term of transportation, Private transport consists of motor scooters, private cars, taxi cabs, and bicycles. According to the statistics of Environmental Protection Administration, Executive Yuan. The quantity of Moto-scooters and vehicles in Taipei totaled 1,762,262 unit in 2017 and car sales totaled 435,135 units in 2018, sale of imported cars increased by an annual 6.3 percent to 197,281 units, accounting for 45.3 percent of the total. Most of the people who lives in Taipei is hard to find a parking spot when they go for a ride. Therefore, Open a new parking lot become one of the way to solve the pain spot. As with any business decision, opening a new parking lot requires serious consideration, rule out the factors of competitors or analysis of economic conditions, the location of the parking lot is one of the most important decision that may determine the success or failure.

Business Problem

The objective of the capstone project is to analysis and find a best locations in Taipei city, Taiwan to open a new parking lot. The business problem would be : in the Taipei city, which area would you recommend if you want to open a new parking spot.

Target Audience

The project is particularly useful to property developers and investors who are looking for new investment target or long-term investment.

Downloading and prepping Data

To provide the stakeholders the necessary information, we will need the following data:

- List of neighborhoods in Taipei City. This information help us to know the whole picture of the Taipei in geographical way, at last, select a best location.

- Latitude and longitude coordinates of those neighbourhoods which help us to find the accurate location in the map. (Foursquare API)
- Venue data, latitude and longitude coordinates of parking lot in Taipei.

Sources of data

latitude and longitude coordinates of parking lot in Taipei : https://taipeicity.github.io/traffic_realtime/

Taipei Neighborhoods' is publicly available at this website:
<https://en.wikipedia.org/wiki/Taipei>

Results and Discussion

A visual analysis of the clusters shows that cluster 0 has one districts with high population density. In addition, Zhongzheng district do not have parking lot in the top ten most common venues.

It would be my advice to target these areas for opening a new parking slot. As we can see, market of parking lot has already almost saturated. high density, small area are to key to expand market of parking lot, but seem most of the district got top one in the top most common venues.

Room for Improvement

in this project, we only see feature like district area, population or top common venue to decide which area is best place to open new parking lot, but the truth is that it needs to look through more feature to determine which place is the best. if we really need to find out more possibility, we should find more venue data, and sales volumn of car in every month with differnet district, then we can use those data to predict which place will need more parking lot in futre 3 years.