Capstone Project: Neighborhoods in Los Angeles

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1. **Introduction/Business Problem**

In this project, exploring the neighborhood in Los Angeles to find the best location for establishing a business. One can find out an answer to which neighborhood would be more ideal.

Comparison of neighborhoods are always in debate topics, whether it’s about the lifestyle, schools, or poverty, especially in city like Los Angeles where a large population are in poverty and difference in living condition vary significantly. Surely, potential business owner would want to be in the competitional area and choose a location that is most beneficial to the business.

Specifically, choosing a location for independent restaurants and café shops are the most crucial decision that have to be made because it can influence business hugely. Questions such as ‘Which city drinks more coffee?’, ‘Is it better to have the café shop close to public transportation or within a grocery store that have lots of foot traffic?’ or ‘Should the café shop have to be near another café shop in order to attract more new customers?’ Thus, this project will be dedicated to deliver an informative analysis to help making the right decision by comparing these two big cities’ venues.

1. **Data acquisition**

A data from Census office on 2018 population/demographic data approximated from block groups to LA Neighborhood Councils will be used. This data contains populations of different ethnicity, poverty, and owner numbers of each Neighborhood.

Foursquare location data will be used in this project to identify local business and venues around the neighborhood to find out the trend of the business in specific areas.

1. **Methodology**

Relationship between neighborhood and population:

Asian dominated neighborhood:

Top five neighborhoods were selected based on the population of Asian ethnicity. Each neighborhood had similar trend in terms of the proportion of the variables of Asian population and population of rental occupied units which had 10% difference. From this number, majority of the Asian population are the renters in Los Angeles.

For instance:

In the figure below, which represents the number one Asian populated neighborhood, relation between Renters (brown color), Asian population (green), and owner (purple) clearly shows the proportion of owner and renters have a very large gap. Using clustering of different venues in each neighborhood, it was observed that number one most common venue was Korean restaurant followed by coffee shop, which means that if a person wants to open an any type of food related service, this can be the most competitive location.

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White dominated neighborhood

This figure is also showing the number one white populated neighborhood. Total population and in\_poverty variables have similar proportion as the Wilshire center area. However, the proportion between renter and owners doesn’t have large difference like the previous one, even though the renter’s population are still higher than the owners. The most common venue was Sushi Restaurants followed by fitness center.

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1. **Result**

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Clustering of different venues in different neighborhoods in Los Angeles, most

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Graphic showing total number of neighborhoods that have same poverty rate. Majority Neighborhoods have high poverty rate.

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Total Venues each neighborhood has.

1. **Discussion**

Sherman oaks had the largest white population among the neighborhoods and it also listed in third of the total venues in each neighborhood 2018. However, establishing business in a crowded area can be not ideal for freshly starting business. Thus, considering the amount of venues, the neighborhood, and the population rate choosing a medium range of neighborhood would be the best to start a new business in service.

1. **Conclusion**

In this study, I analyzed the relationship between neighborhood’s poverty rate and venue categories using data from Census 2018. Few things were observed, such as the property ownership were higher in white ethnicity populated area, and the most renters were in Asian populated area. High number in renters mean that the businesses are moving in or out from this neighborhood much more often than the area where businesses have their ownership.