Neighborhood Analysis in Hong Kong

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Introduction: Business Problem

- To analyze the difference between neighborhoods in Hong Kong
- To help decide if people should come to Hong Kong to live and where to stay

Data

- Hong Kong neighborhood data from 2019 district council election
- https://www.elections.gov.hk/dc2019/eng/p_cs.html
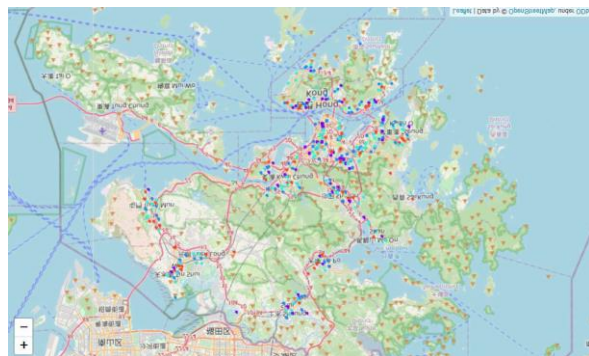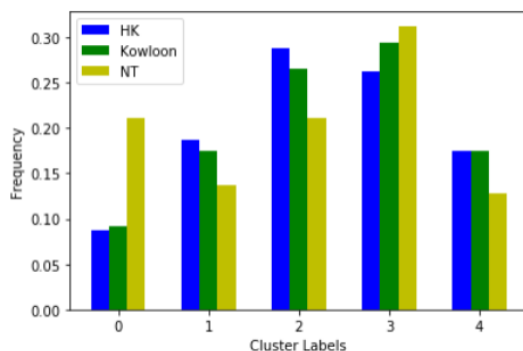- Location data from Geopy package

Three main areas

- Red – Hong Kong Island
- Blue – Kowloon
- Green – New Territories
- The neighborhoods distributed uniformly around the urban areas

Methodology

- Determination of k
- Distortion means the within-cluster sum of squared errors
- At the elbow point, k ~ 12
- Thus, the best k should be around 12

Results

Generally, the structures of HK and Kowloon neighborhoods are close to each other. Cluster 2 and 3 are more common than others. Cluster 2 slightly more common in HK while Cluster 3 in Kowloon.

- Cluster 0 is more common in NT than in HK and Kowloon
- Cluster 1, 2 and 3 less common in NT
- NT has more cluster 0 and 3, which show larger frequencies of Chinese
- restaurants and fast food restaurant, while fewer venues like coffee shops
- Light rail station is typical in NT, which appears in top 5 of Cluster 0 Different clusters can be visualized on this Folium map
- E.g. In Tuen Mun, more cluster 0 can be found, while fewer cluster 1
- This map can help decide where to stay in Hong Kong

Conclusion ¶

- The neighborhoods in Hong Kong island and Kowloon are close to each other, probably due to the similar urbanization history
- Hong Kong is a convenient city where supermarket and shopping malls are distributed in many neighborhoods around the city
- Chinese restaurants and fast food restaurants are the most common venues in Hong Kong, which may be related to the eating habit in this city.