

Most ideal district for opening an
Organic Bubble Tea Shop in Hong Kong



Introduction

- Hong Kong has 3 regions in general: Hong Kong Island, Kowloon and New Territories. The city is divided into 18 districts
- In the past year with the existence of COVID, people are more aware of their health as well as food qualities
- Explore the ideal location in Hong Kong for opening an Organic Bubble Tea shop
- Target customer: teenagers and young adults
 - Pricing strategy: higher than ordinary bubble teas in the market
 - Parameters selected for analysis: Median monthly household income, population and age groups



Data acquisition and cleaning

- The first table extracted from the page on Wikipedia: https://en.wikipedia.org/wiki/Districts_of_Hong_Kong, with the names and regions of the 18 districts in Hong Kong, its respective population as well as population density
- Latitude and longitude of 18 Hong Kong districts can be found in <https://latitude.to/map/hk/hong-kong/cities/hong-kong>
- Foursquare API will be used to get the 10 most common venues of the 18 districts in Hong Kong, which will be further used for clustering
- Analysis of social parameters (age groups and median monthly household income) will be referenced to HK_median income.csv and HK_age.csv.



18 Districts in Hong Kong



Venues returned by Foursquare

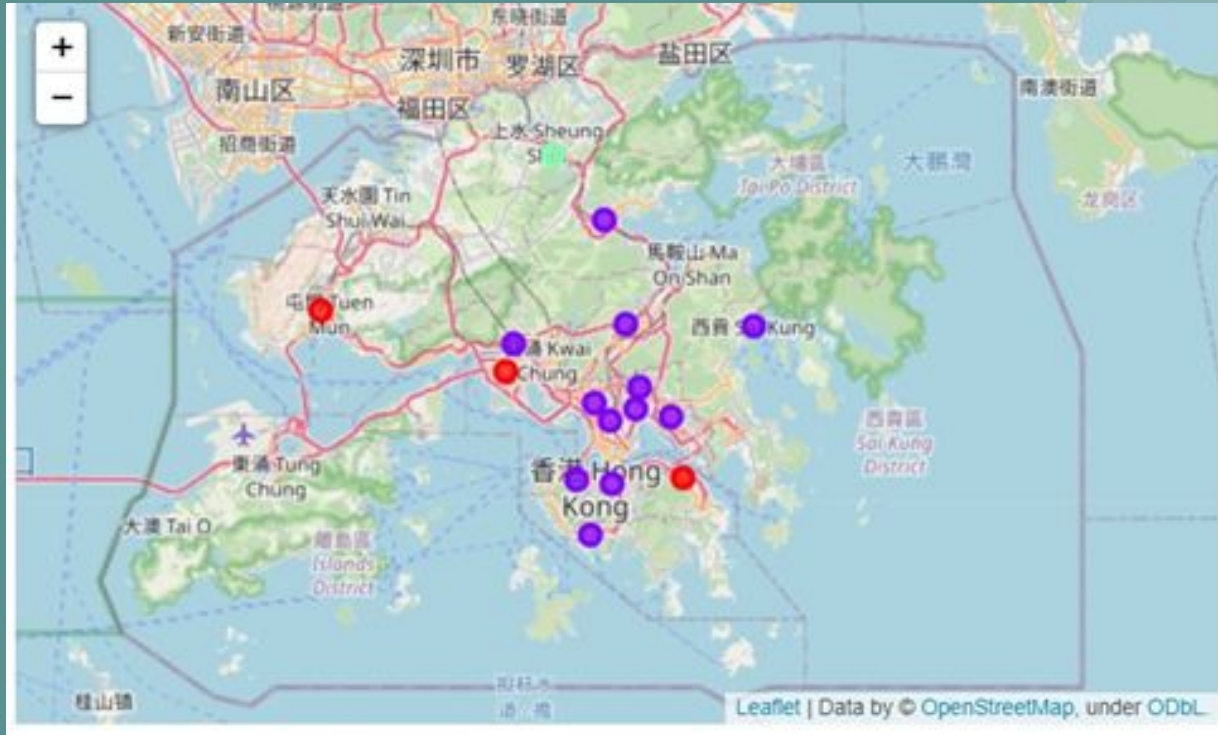
	name	categories	lat	lng
0	PMQ (元創方)	Arts & Crafts Store	22.283298	114.151971
1	The Old Man	Bar	22.282770	114.151774
2	Craftissimo	Beer Store	22.284589	114.148293
3	Teakha (茶·家)	Tea Room	22.284506	114.148407
4	Blue Supreme	Bar	22.285148	114.149385

a total of 73 venues were returned.

getNearbyVenues with resulting districts, latitudes, longitudes and venue categories.

	District	District Latitude	District Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Central and Western	22.2833	114.15	PMQ (元創方)	22.283298	114.151971	Arts & Crafts Store
1	Central and Western	22.2833	114.15	The Old Man	22.282770	114.151774	Bar
2	Central and Western	22.2833	114.15	Craftissimo	22.284589	114.148293	Beer Store
3	Central and Western	22.2833	114.15	Teakha (茶·家)	22.284506	114.148407	Tea Room
4	Central and Western	22.2833	114.15	Blue Supreme	22.285148	114.149385	Bar

Clustering of districts in Hong Kong

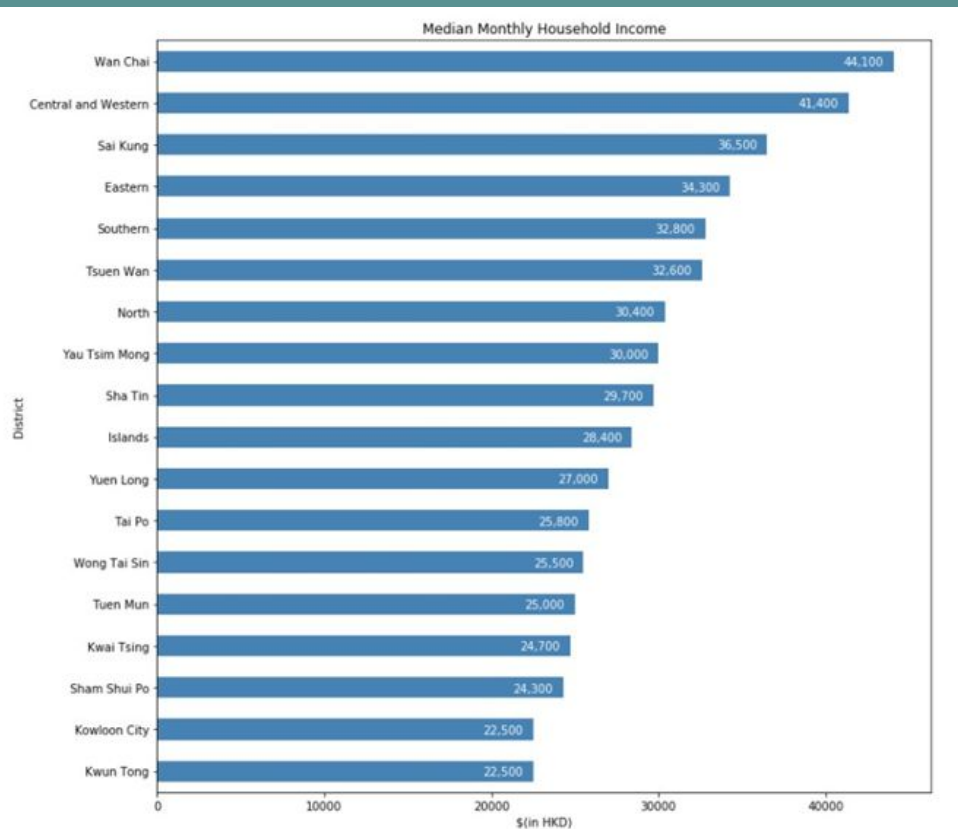


Running k-means
(set number of
clusters = 3)

Red: Cluster 0
Purple: Cluster 1
Green: Cluster 2

Social Parameters

1. Median Monthly Household Income



Topped by Wanchai, Central and Western, and Sai Kung

Divide the districts into 4 income level groups:

1. High (>\$33000 hkd)
2. Upper Medium (\$29500-33000 hkd)
3. Lower Medium (\$26000-29500 hkd)
4. Low (<\$26000 hkd)

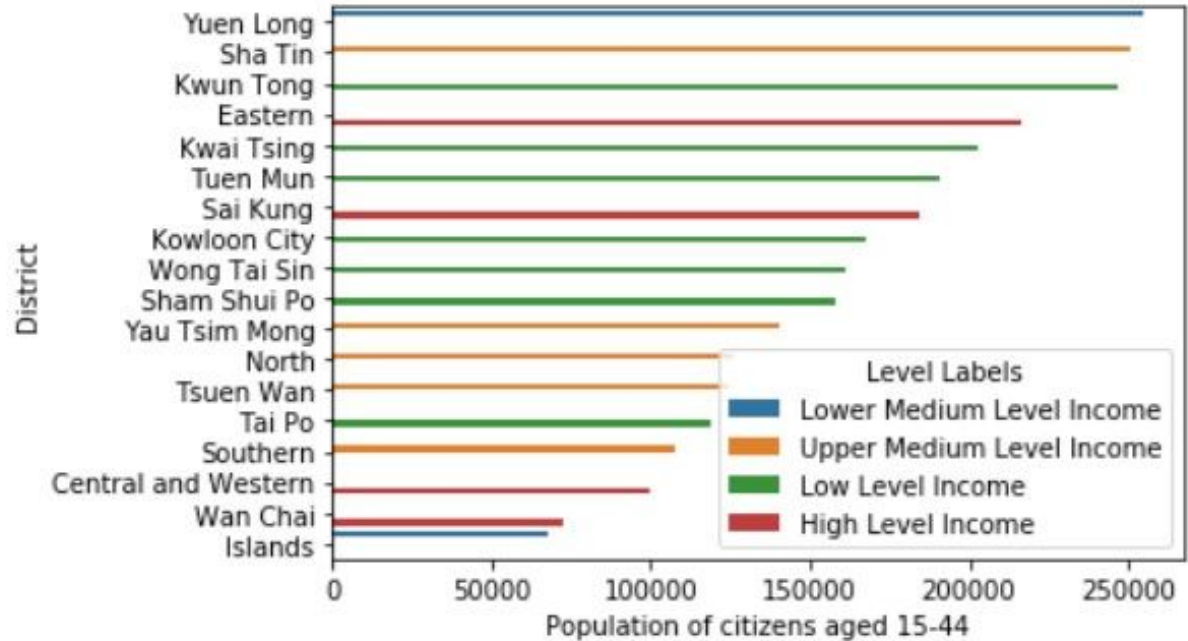
District	Region	Median monthly household income	Level Labels
Kwun Tong	Kowloon	22500	Low Level Income
Kowloon City	Kowloon	22500	Low Level Income
Sham Shui Po	Kowloon	24300	Low Level Income
Kwai Tsing	New Territories	24700	Low Level Income
Tuen Mun	New Territories	25000	Low Level Income
Wong Tai Sin	Kowloon	25500	Low Level Income
Tai Po	New Territories	25800	Low Level Income
Yuen Long	New Territories	27000	Lower Medium Level Income
Islands	New Territories	28400	Lower Medium Level Income
Sha Tin	New Territories	29700	Upper Medium Level Income
Yau Tsim Mong	Kowloon	30000	Upper Medium Level Income
North	New Territories	30400	Upper Medium Level Income
Tsuen Wan	New Territories	32600	Upper Medium Level Income
Southern	Hong Kong Island	32800	Upper Medium Level Income
Eastern	Hong Kong Island	34300	High Level Income
Sai Kung	New Territories	36500	High Level Income
Central and Western	Hong Kong Island	41400	High Level Income
Wan Chai	Hong Kong Island	44100	High Level Income

Social Parameters

2. Age groups and Population

Target customers:
between 15-44 years old

Compute the resulting
population with the result
'Population of citizens
aged 15-44', grouped by
District, together with
income Level labels



Compare the results between Eastern district and Sha Tin district

	District	Population	Population Growth	Latitude	Longitude	Region	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue
1	Eastern	555034	-2.8%	22.28411	114.22414	Hong Kong Island	0	Chinese Restaurant	Park	Restaurant	Cantonese Restaurant	Japanese Restaurant	Hainan Restaurant	Indian Restaurant
12	Sha Tin	659794	+8.6%	22.3833	114.18330	New Territories	1	Campground	Vegetarian / Vegan Restaurant	Temple	Resort	Breakfast Spot	Café	Cantonese Restaurant



Conclusion and Future directions

- Sha Tin district (in purple dot) and Eastern district (in red dot) are two ideal districts for the opening of an organic bubble tea shop
- More parameters should be taken into account, E.g. the rent of different locations, the number of direct competitors within the same industry
- For future analysis, better narrow down the scope of analysis to a particular district and a particular type of cuisine

