



# SINGAPORE BUSINESS ANALYSIS

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# Background

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Singapore has a highly developed market economy, based historically on extended entrepôt trade.

Between 1965 and 1995, growth rates averaged around 6 per cent per annum, transforming the living standards of the population.

More and more investors are exploring the opportunities to set up business in Singapore. In this report, we are focusing on food and beverage type of business, especially the area and type of restaurant selections.



# Data and methodology

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- Singapore area  
data: [https://en.wikipedia.org/wiki/Planning\\_Areas\\_of\\_Singapore](https://en.wikipedia.org/wiki/Planning_Areas_of_Singapore)
- Google location data
- Foursquare venue information
- Segmenting and clustering analysis were conducted

# Detailed Analysis – first impression of Singapore areas

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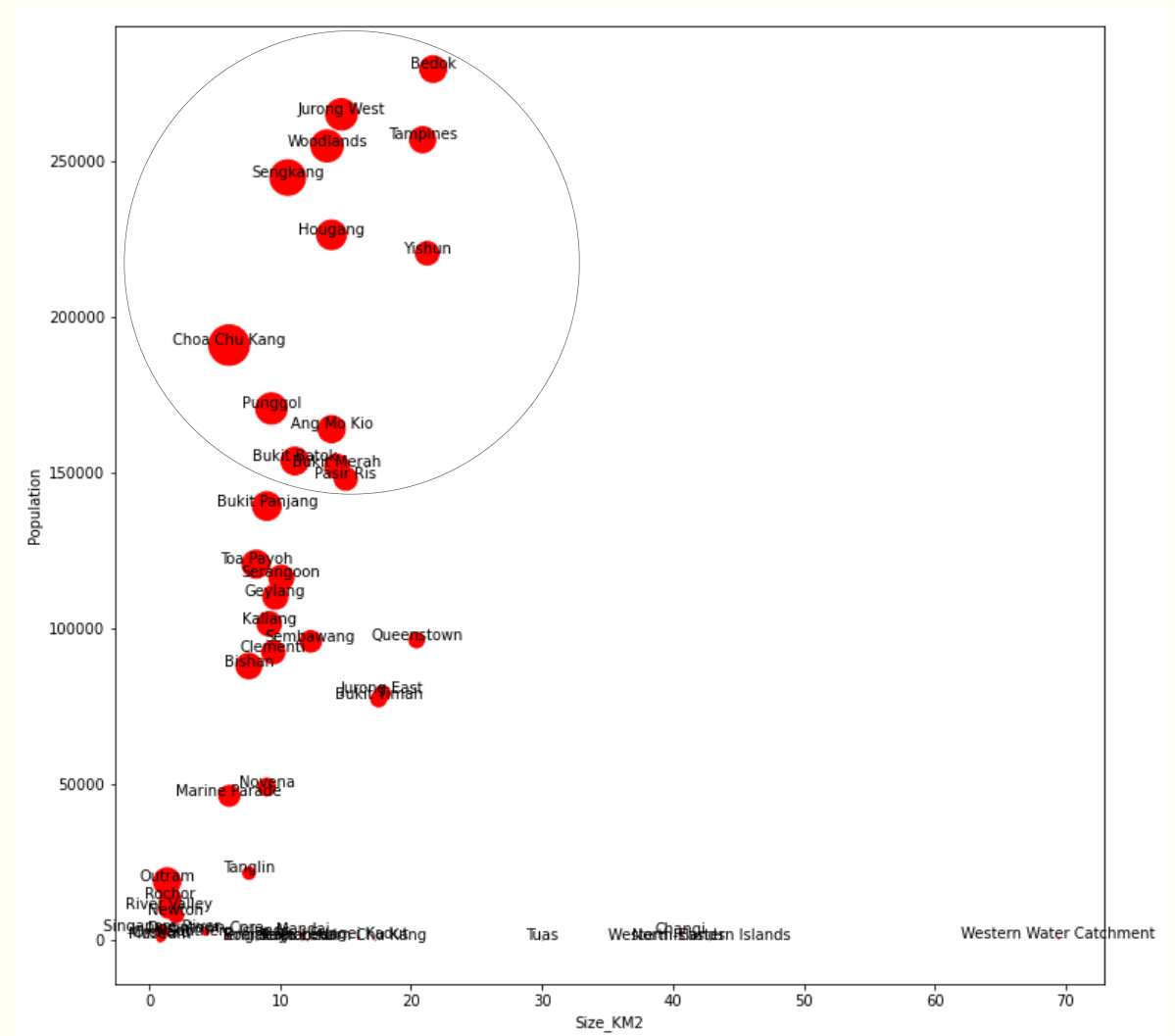
- Areas: 55 areas
- Regions: 5 regions
- Total Area: 677 km<sup>2</sup>
- Total population: 4 million
- Average Density: around 5900 per km<sup>2</sup>

Region	Areas*	Size (km <sup>2</sup> )	Population	Density
Central	19	129	922,940	7,136
East	5	110	686,000	6,242
North	6	92	573,950	6,223
North-East	7	111	921,960	8,304
West	12	235	921,360	3,922
Total	49	677	4,026,210	5,943

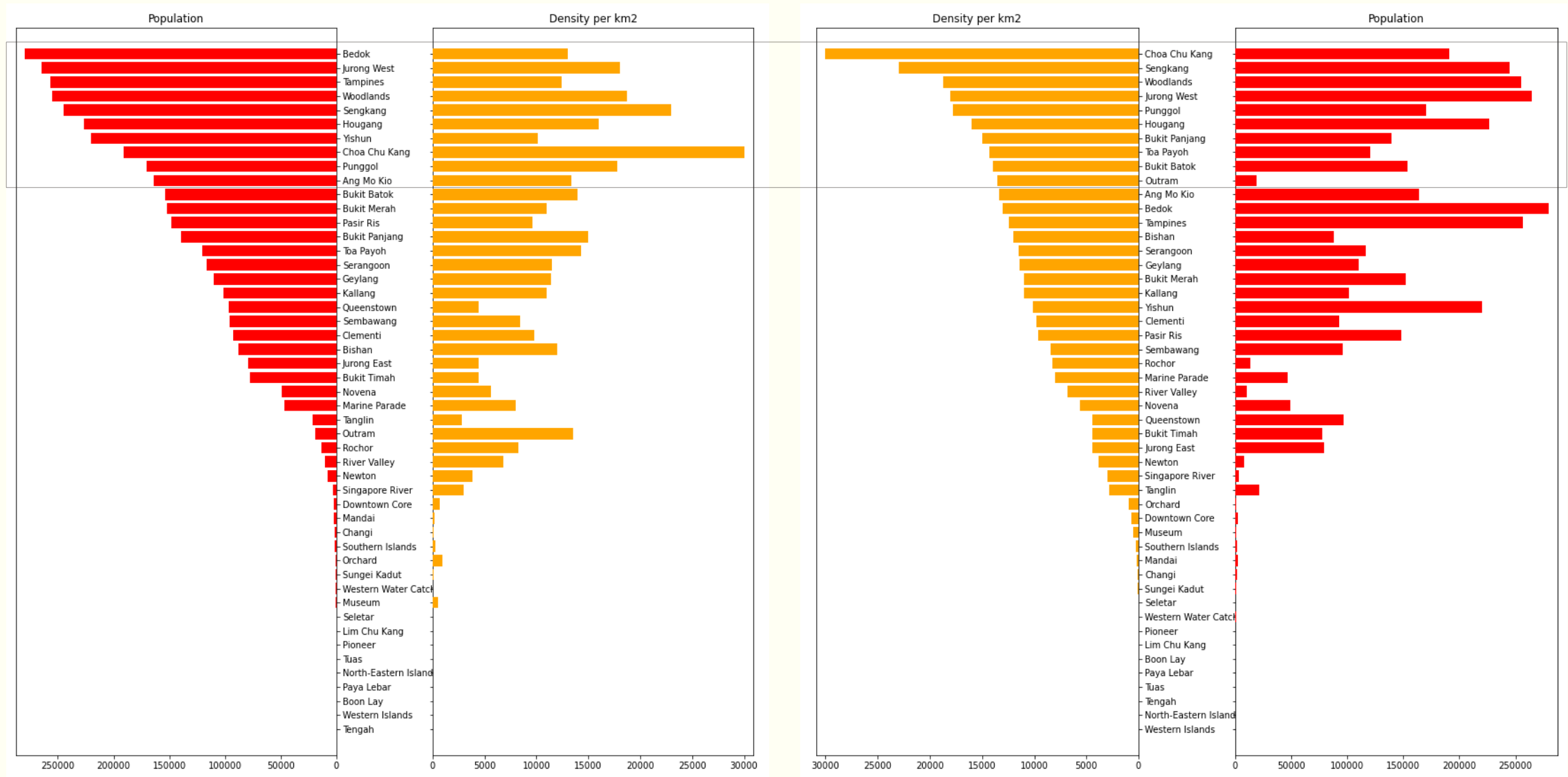
\*Six areas are excluded from this summary due to minimal size and zero population. They are Changi Bay – East, Marina East – Central, Marina South – Central, Straits View – Central, Central Water Catchment - North, Simpang – North.

# Detailed Analysis – size, population and density

- The left up part of bubbles should be our key focus.



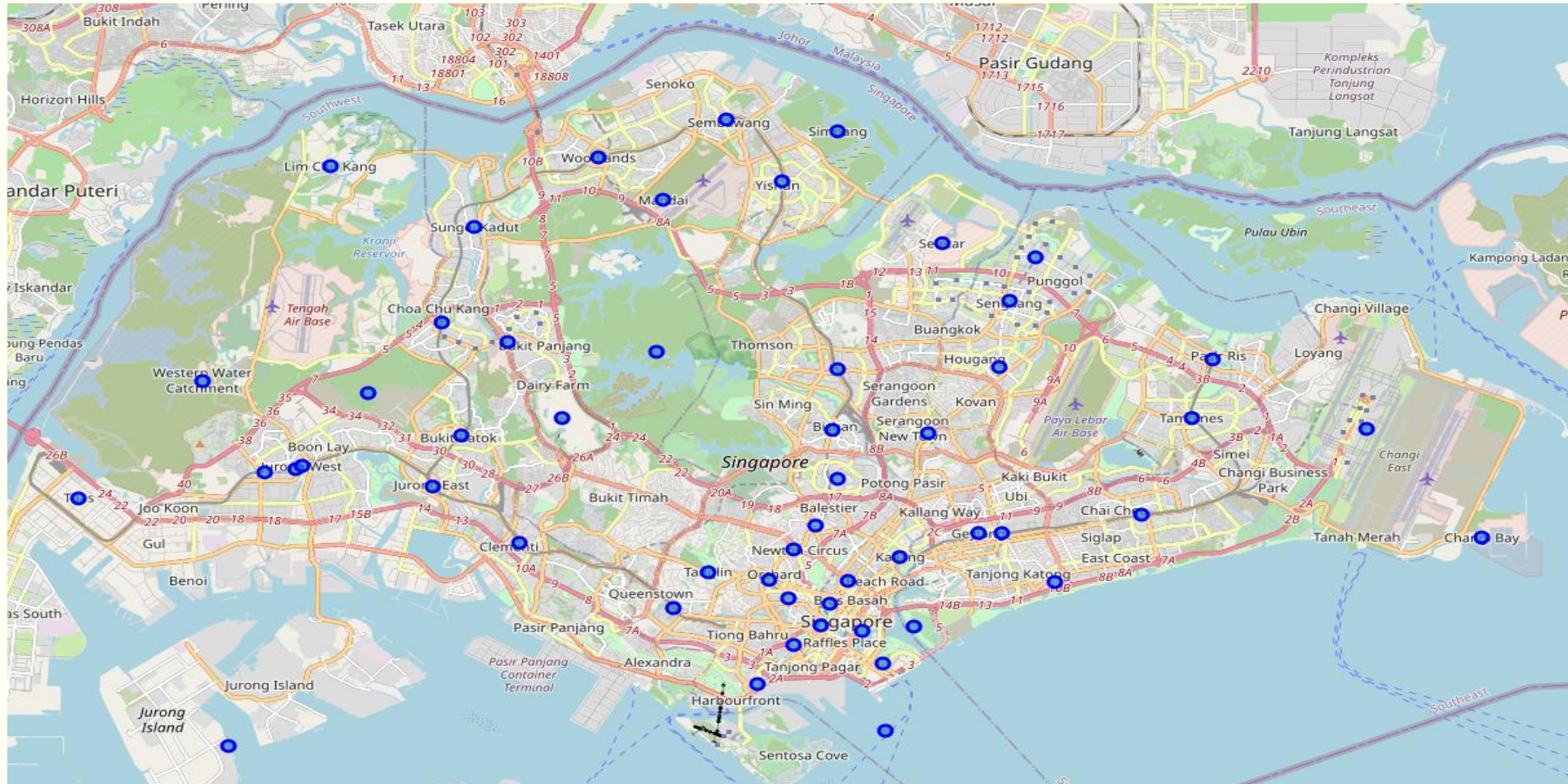
# Detailed Analysis – further analysis on population and density





# Detailed Analysis – Visualization of Singapore and Areas

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# Detailed Analysis – Statistic of Venues of Top Areas

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- There are 226 categories of venues in Singapore. In total there are 1731 venues addressed.
- The total venues of top 12 areas are more than 50% of total venues in Singapore. And it is no surprising that four areas in Central have more venues given they are designed to be CBD. And more venues are located in West and East regions.

Area	Region	Venues
Singapore River	Central	100
Orchard	Central	100
Downtown Core	Central	100
Tampines	East	82
Boon Lay	West	78
Paya Lebar	East	77
Jurong East	West	77
Jurong West	West	69
Clementi	West	66
Novena	Central	65
Bedok	East	60
Woodlands	North	51
Others	-	806
Total	-	1731

# Detailed Analysis – Top 10 Venues in Bedok

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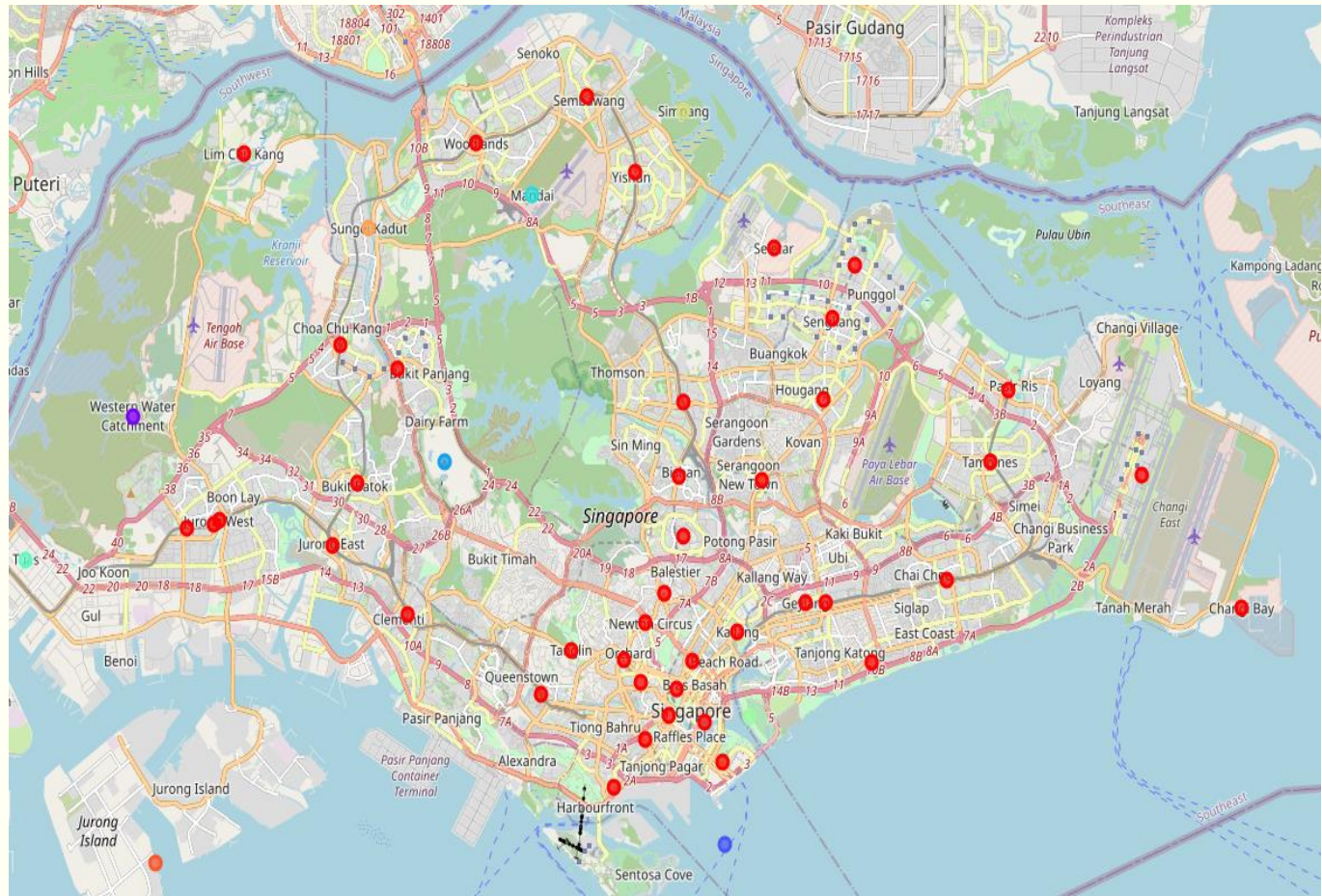
- Chinese Restaurants and other Asian Restaurants might be opportunities without fierce competitions.

venue	freq
Coffee Shop	0.07
Sandwich Place	0.05
Japanese Restaurant	0.05
Food Court	0.05
Noodle House	0.05
Asian Restaurant	0.05
Chinese Restaurant	0.05
Supermarket	0.03
Café	0.03
Sushi Restaurant	0.03

# Detailed Analysis – Clustering analysis on different Areas

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- The key observation is that most of the areas are fallen to same cluster (42 of 55 areas), which means that k-means clustering did not work well for our analysis.



## 4. Recommendation and Conclusion

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- k-mean clustering approach does not give us useful insights.
- It is recommended to select the area for the business in the top 10 list of areas in terms of population/density.