Identify business opportunities and competitor analysis in Malaysia

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1.0 Introduction and identify the problem

One of the friends of mine would like to start up a dessert café in Malaysia. However, he has no idea on the positioning in the market and the competitor in the industry. Therefore, this report is to provide him and his potential investor with more insight and provide them with enough information in order for them to make decision.

The objectives of this projects as below:

- 1) Identify the dessert business opportunity in the potential area.
- 2) Identify the competitor and analyse the position of the competitor.

2.0 Data

The data will be collected through Foursquare API and the data collected will be around the potential startup location based in Malaysia. First of all, I will use the neighbourhood name, latitude and longitude to determine the radius. After the radius has been determined, I will find out how many stores and restaurant around the radius of 5KM are I will include the total number of stores, direct competitor of dessert shop, the name of the store in the 5KM radius, the rating of the top 3 nearest competitor and the trending value. I will use all the data above to provide an overview in the neighbourhood.

3.0 Methodology

Foursquare is a social location service that allows users to explore the world around them. It allows the user to check in at specific place and share to social network. When a user checks in enough times, that user becomes the mayor of a location, which may or may not give the user access to special offers, depending on the business running a location. Therefore, this project is using the Foursquare API to communicate with Foursquare and get the various information such

as business type, customer rating or comment and nearby venue within an area. Also, I will be using Pandas to structure the data into the table format and visualising the data by using Folium.

4.0 Results

Based on my findings with Foursquare API, there are a total of 39 stores around the radius of 5KM. 29 stores out of 39 stores are restaurant while the remaining 10 stores are dessert store.

Below is the names of the shops of the restaurant and dessert shop.



Figure 1: List of Restaurants within 5KM radius (1)

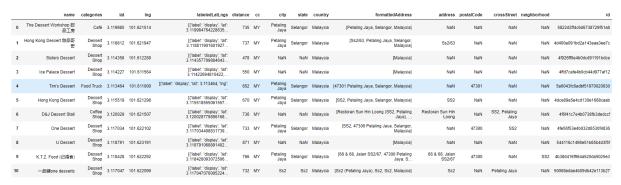
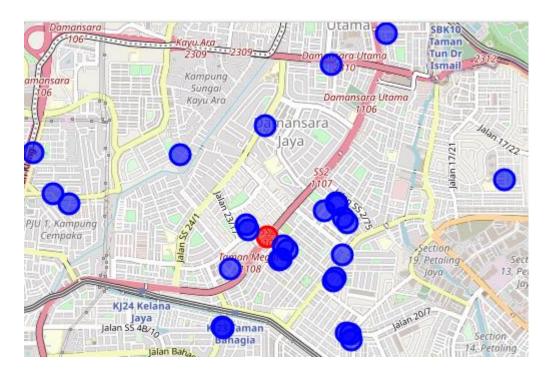


Figure 2: List of Restaurants within 5KM radius (2)

| 16 | B & Best Restaurant | Chinese Restaurant | 12, Jalan SS 4C/5 | Taman Rasa Sayang 3.110 | 265 101.603684 | [{'label': 'display', 'lat': 3.110264512928586 | 1525 | 47301 MY Petaling Jaya | Selangor | Malaysia | [12, Jalan SS 4C/5 (Taman Rasa Sayang), 47301 | NaN 4bd0e3da77b29c74e0bf8b82 |
|----|---|----------------------------------|---|-------------------------|----------------|---|------|---------------------------|----------|----------|--|-------------------------------------|
| 17 | Daorae Korean BBQ Restaurant | Korean Restaurant | Jalan SS 2/67 | NaN 3.120 | 118 101.621373 | [{'label': 'display', 'lat': 3.120117815579814 | 727 | NaN MY Petaling Jaya | Selangor | Malaysia | [Jalan SS 2/67, Petaling Jaya, Selangor, Malay | NaN 4f0668aa6da1d1ed2c9e042e |
| 18 | Menu-Script Restaurant & Bar | Asian Restaurant | Jalan SS2/60 | NaN 3.117 | 185 101.622450 | [{'label': 'display', 'lat': 3.117184819128616 | 771 | NaN MY Petaling Jaya | Selangor | Malaysia | [Jalan SS2/60, Petaling Jaya, Selangor, Malaysia] | NaN 563da961498e41debd146f39 |
| 19 | LaLa Chong Seafood Restaurant | Seafood Restaurant | 13556, Jalan Cempaka, Kayu Ara Damansara | NaN 3.124 | 229 101.608002 | [['label': 'display', 'lat': 3.124228580140093 | 1142 | 47400 MY Petaling Jaya | Selangor | Malaysia | [13556, Jalan Cempaka, Kayu Ara Damansara, 474 | NaN 4bd7becbe914a59334fb51fa |
| 20 | Hoi Peng Seafood Restaurant海 滨海鲜楼 | Seafood Restaurant | 30, Jalan SS2/24 | Jalan SS2/24 3.113 | 345 101.620652 | [{'label': 'display', 'lat': 3.113845245465196 | 684 | 47300 MY Petaling Jaya | Selangor | Malaysia | (30, Jalan SS2/24 (Jalan SS2/24), 47300 Petali | NaN 4d0f61d55584f04d7c8f5116 |
| 21 | Chef Chan Seafood Restaurant (金华海鲜饭店) | Asian Restaurant | No. 40 , SS2/10 | NaN 3.116 | 056 101.617191 | [{"label": "display", "lat": 3.116056355238457 | 227 | 47300 MY Petaling Jaya | Selangor | Malaysia | [No. 40 , SS2/10, 47300 Petaling Jaya, Selango | NaN 4c160d927f7f2d7fe649e368 |
| 22 | Restaurant Lucky Home Mix Rice 家好运 | Chinese Restaurant | Jalan 21/19 | NaN 3.109 | 005 101.622257 | [{'label': 'display', 'lat': 3.109004872088202 | 1182 | NaN MY Petaling Jaya | Selangor | Malaysia | [Jalan 21/19, Petaling Jaya, Selangor, Malaysia] | NaN 553b716e498efecdca34d347 |
| 23 | Chin Swee Vegetarian Restaurant (清水岩東磐馆) | Vegetarian / Vegan Restaurant | 56 Jalan SS 2/10 | NaN 3.116 | 178 101.617555 | [{'label': 'display', 'lat': 3.116478222241806 | 242 | 47300 MY Petaling Jaya | Selangor | Malaysia | [56 Jalan SS 2/10, 47300 Petaling Jaya, Selang | NaN 514e7480d86c8f337106522f |
| 24 | Piccadilly Restaurant | Asian Restaurant | Millennium Square (Lot LG-006 & 007), Jalan 14/1 | NaN 3.105 | 377 101.634633 | [{'label': 'display', 'lat': 3.105376565032287 | 2501 | 46100 MY Petaling Jaya | Selangor | Malaysia | [Millennium Square (Lot LG-006 & 007), Jalan 1 | Seksyen 14 4b28d677f964a520939524e3 |
| 25 | Sanbanto Premium Pork Restaurant | Restaurant | 32 Jalan SS 2/63 | NaN 3.118 | 733 101.621993 | [{'label': 'display', 'lat': 3.118733158614054 | 740 | 47300 MY Petaling Jaya | Selangor | Malaysia | [32 Jalan SS 2/63, 47300 Petaling Jaya, Selang | SS2 4b49c563f964a520687326e3 |
| 26 | Bayu Timor Restaurant Kafe | Café | Jalan SS24/8 | Jalan ss 24/8 3.113 | 317 101.611355 | [{'label': 'display', 'lat': 3.113816608439886 | 596 | NaN MY Petaling Jaya | Selangor | Malaysia | [Jalan SS24/8 (Jalan ss 24/8), Petaling Jaya, | NaN 4bb819fc1261d13ab25ce898 |
| 27 | Tea Time Restaurant | Coffee Shop | Jalan SS26/4 | Taman Mayang 3.116 | 294 101.604377 | [{'label': 'display', 'lat': 3.116294053319141 | 1241 | 47300 MY Petaling Jaya | Selangor | Malaysia | [Jalan SS26/4 (Taman Mayang), 47300 Petaling J | NaN 4bb1d756f964a520d3a53ce3 |
| 28 | Hai Keng Restaurant (海景茶餐 室) | Chinese Restaurant | Jalan 14/20 | Seksyen 14 3.110 | 262 101.635498 | [{'label': 'display', 'lat': 3.110262066518357 | 2353 | 46100 MY Petaling Jaya | Selangor | Malaysia | [Jalan 14/20 (Seksyen 14), 46100 Petaling Jaya | NaN 4b91a7a4f964a5204ccd33e3 |
| 29 | Soo Kee Restaurant | Chinese Restaurant | 33, Jalan 21/17 | NaN 3.109 | 925 101.622056 | [{'label': 'display', 'lat': 3.109925412794629 | 1090 | 46300 MY Petaling Jaya | Selangor | Malaysia | [33, Jalan 21/17, 46300 Petaling Jaya, Selango | NaN 4b2306f6f964a520535224e3 |

Figure 3: List of Dessert shops within 5KM radius (3)

Then, I visualised the data that I have gained into a map by using Folium module. Based on the map, there is a high concentration of competitors located around the potential start up location. Below is the results.



Due to the high concentration in the area, I proceed to find out what do the consumers think of the competitor around the area. I have search for the top 3 shops that are closest to the potential location which are:

- 1) Sister Dessert
- 2) Ice Palace Dessert
- 3) Tim's Dessert

4) Based on my findings, the top 3 nearest competitors do not have rating from consumers. Below are the results.

1) Sister Dessert venue_id = '4f926ff0e4b0dcd91191bdce' https://api.foursquare.com/v2/venues/{}?client_id={}&client_secret={}&v={}'.format(venue_id, CLIENT_ID, CLIENT_SECRET, VERSION) result = requests.get(url).json() print(result['response']['venue'].keys()) result['response']['venue'] dict_keys(['id', 'name', 'contact', 'location', 'canonicalUrl', 'categories', 'verified', 'stats', 'price', 'likes', 'dislike', 'ok', 'allowMenuUrlEdit', 'beenWere', 'specials', 'photos', 'reasons', 'h' 'tips', 'shortUrl', 'timeZone', 'listed', 'seasonalHours', 'pageUpdates', 'inbox', 'attributes']) tips:, shortUrl, 'timeZone', 'listed', 'seasonalHours', 'pageUpdates', 'inbox', 'at 'did': '46206feebbdodds11806ce', 'name': 'Sisters Dessert', 'contact': (). 'location': ('lat': 3.148577098866436, 'llapicalizage12894279084, 'labeledatings': (['label': 'display', 'lat': 3.118937708886436, 'lac': '18.11893789886436, 'ccc': '19.11893789886436, 'ccc': '19.11893818, 'fornattedddoress': ('Malaysia'), 'ccaregories': (['ld': 'Abf38dddd89888d180941735', 'name': Dessert Shop', 'shortUsme': 'labf38ddddd88888d180941735', 'rame: 'Dessert Shop', 'shortUsme': 'Dessert Shop', 'shortUsme': 'Dessert'shop', 'shortUsme': 'Ture'), 'verfided': False, 'stats': ('type': 'others', 'groups': (['type': 'others', 'groups': (['type': 'others', 'groups': (['type': 'others', 'distNew: 'Ealse, 'distNew: 'False, 'distNew: 'False print(result['response']['venue']['rating']) except: print('This venue has not been rated yet.') This venue has not been rated vet. 2) Ice Palace Dessert https://api.foursquare.com/v2/venues/{}}client_id={}&client_secret={}&v={}'.format(venue_id, CLIENT_ID, CLIENT_SECRET, VERSION) result = requests.get(url).json() print(result['response']['venue'].keys()) result['response']['venue'] dict_keys(['id', 'name', 'contact', 'location', 'canonicalUrl', 'categories', 'verified', 'stats', 'price', 'likes', 'dislike', 'ok', 'allowMenuUrlEdit', 'beenHere', 'tips', 'shortUrl', 'timeZone', 'listed', 'seasonalHours', 'pageUpdates', 'inbox', 'attributes']) 'dislike': False, 'ok': False, 'allowMenuUrlEdit': True, 'beenHere': {'count': 0, 'unconfirmedCount': 0, uncontrmedcount: 0, marked: False, "lastCheckinExpiredAt': 0, "specials: { 'count': 0, 'items': []}, 'photos: { 'count': 0, 'groups': []}, 'reasons': { 'count': 0, 'items': []}, 'hereNow': { 'count': 0, 'summary': 'Nobody here', 'groups': []}, print(result['response']['venue']['rating']) except: print('This venue has not been rated yet.') This venue has not been rated yet.

After that, I further check if there are any trending shops nearby the potential location. The result shows that there are no trending shops nearby the potential location. Below is the result.

```
if len(results['response']['venues']) == 0:
    trending_venues_df = 'No trending venues are available at the moment!'
else:
    trending_venues = results['response']['venues']
    trending_venues_df = json_normalize(trending_venues)

# filter columns
    columns_filtered = ['name', 'categories'] + ['location.distance', 'location trending_venues_df = trending_venues_df.loc[:, columns_filtered]

# filter the category for each row
    trending_venues_df['categories'] = trending_venues_df.apply(get_category_t

trending_venues_df
7]: 'No trending venues are available at the moment!'
```

5.0 Discussion of results

Based on the findings, it is high in risk to start up the store in the location as there is a high competition in the potential area and there is no trending venue around it. However, there are several opportunities in the area as the traffic is high and also many restaurants surrounding the potential location and consumers will usually go for dessert after a meal. Also, it is difficult to judge the popularity of the competitors as there is no rating given by the consumers. Even though, there is no trending venue around the area, it is offset by the high traffic.

6.0 Recommendation

In order for a business to be successful, a business will need a great location with a great product. Although the location provided a several opportunities, it will be better to move near to trending venue in order to take advantage of the traffic from the trending venue. While the location is, the business needs to provide a product with unique selling point to differentiate from the other competitors as the competition is high in the area. Also, we can try to increase our web presence in location-based services such as Foursquare, Google etc. It is important to have a web presence as people will usually search online for shops with high rating and a strong web presence will drive higher traffic to the shops.

7.0 Conclusion

In short, other than the high concentration of the competitors in the area, the location is promising as it provides with several opportunities e.i. many restaurants around the area, high traffic etc. Not only that, there are some few places to improve which is to relocate to location nearby a trending venue if there is any in order to take advantage of the traffic, improve web presence which will drive traffic to the shop.