Venue Data Analysis

and

Population Density of Yangon

# Finding a suitable location to start a business in Yangon

- Yangon, the commercial capital of Myanmar is a densely populated city with an average urban density of 8,600/km².
- Most crowded neighborhoods are already dense with different kinds of business.
- Depending on their type of business, the owners may want to set up where their type of business is less intense or where related types of business exist.
- We will focus mainly on locations for cafe(s) and bakeries.

## **Data Wrangling**

- Population density and landmarks of each neighborhood from <u>Wikipedia</u>
- 2. Population growth rate
- **3. Json** file for townships (neighborhood) boundaries
- 4. Foursquare API for venue data

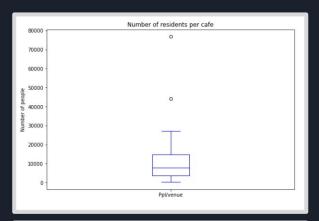
Population density and number of residents : shop ratio will be mainly used.

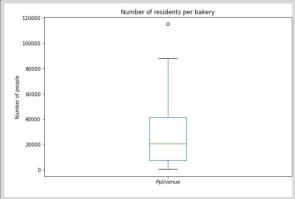
## Most common venues of Neighborhoods

	Cluster Labels	Neighborhood	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
0	1	AHLON	Hotel	Café	Bakery	Shopping Plaza	Boarding House	Bubble Tea Shop	Ice Cream Shop
1	1	BAHAN	Hotel	Café	Shopping Mall	Ice Cream Shop	Tea Room	Bubble Tea Shop	Hostel
2	0	BOTAHTAUNG	Hotel	Café	Hostel	Bakery	Shopping Mall	Dessert Shop	Bed & Breakfast
3	1	DAGON	Hotel	Café	Bakery	Hostel	Supermarket	Bed & Breakfast	Boarding House
4	0	DALA	Hotel	Hostel	Café	Donut Shop	Shopping Mall	Market	Supermarket

Most common venues of each neighborhood are generated using **Foursquare** and grouped into 3 clusters using **K-mean algorithm**.

### Residents: Venue ratio

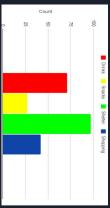




- Box plot are generated for the two targeted categories.
- Neighborhoods above **Interquartile Range** are selected for further studies.
- 9 neighborhoods were selected.

# **Visualizing Venues and Population density**





Venue, Landmark & Population

#### Results

Depending on the stakeholders' preference, they can select a location with

- High population density like the city center
  - City centers are often good places for most businesses.
- Average population density but very high resident to venue ratio (high demand)
  - Has a high potential for some specific businesses.
- Other restaurants or similar ones exist (for more competitive environment)
  - Like night markets or street food zones.

#### Conclusion

- Yangon has a steady growth rate of both population and business., New city zones are also being developed.
- The analysis shows the areas with the highest demand.
- With a better location data, more public data, estate data and the analysis will be a lot more precise and specific.
- This type of analysis can also be used for other types of business which are related to each other.