Classifying Urban Sectors of the Greater Toronto Area of Canada

By Het Shah, 9th June 2020

Introduction:

The Greater Toronto Area is one of the most vibrant, multicultural and ever-developing regions of North America. The population of GTA is growing every day and it gets diverse with each passing year. This is due to the continuing migration from other parts of Canada and the world.

As the city grows, it is empirical for the City Planners, Developers, Investors, and Entrepreneurs to understand and identify the opportunities that may arise with the growing urban population. It is also important for local authorities and officials to quantitatively examine the underdeveloped neighborhoods and take action to establish equity within the Greater Toronto Area.

We will use Foursquare API and population data for the following analysis:

1) Classifying neighborhoods as highly developed, downtown and less/under developed

2) Understanding Toronto's make up by learning the demography.

3) Exploring underdeveloped neighborhoods.

4) Identifying and examining business opportunities in various neighborhoods.

Data

To fulfill our research goal we use reliable and publicly available datasets. The following sources of data have been used

1) Population and Demographic data from : https://ckan0.cf.opendata.inter.prod-toronto.ca/download_resource/335e3407-d3ca-422a-bfac-e3807cfbe0d5

This dataset has population and demographic categories for 140 neighborhoods that make up the city of Toronto. It also has data on Age and Sex breakdown of the population. It also identifies families by their first language which helps in understanding the demographics of the city.

2) Latitude and Longitude using the GeoJSON and csv file of the borders of the neighborhood made available by the city of Toronto.

GeoJSON file: https://ckan0.cf.opendata.inter.prod-toronto.ca/download_resource/a083c865-6d60-4d1d-b6c6-b0c8a85f9c15?format=geojson&projection=4326

CSV file: https://ckan0.cf.opendata.inter.prod-toronto.ca/download_resource/a083c865-6d60-4d1d-b6c6-b0c8a85f9c15?format=csv&projection=4326

3) Foursquare Developers Access