Capstone Project – Battle of the Neighbourhoods, Part 1

Background

The HPA Company currently based in Singapore are considering expanding to North America where there is a large demand for their services. They want to explore whether the cities of New York or Toronto could be potential locations for the new North American branch.

Objectives

They have commissioned this project to analyse both cities, based on the following objectives:

- How large is the population, and therefore what is the size of the potential local customer base?
- What are some of the key characteristics of some of the larger neighbourhoods in each city?
- What are the typical salary levels in each city? As we will have to recruit staff and will also be helpful for some of our relocating employees.
- What are the typical housing costs for each city? Will also be useful data to identify the higher and lower income neighbourhoods.
- What are the main types of retailers and other businesses already established? To give an indication of potential competitors and partners.

Data to be used and methodology

The data will be based on a number of open sources. The methodology to obtain the data will vary depending on the source.

Where possible we will collate the data directly from the webpages, either through scraping or by reading downloadable csv or Excel files.

Businesses data from Foursquare is obtained from their open API for developers.

The intention is to report on the following items:

1. Overall population levels in each city and some information on neighbourhood populations where available.
2. Demographic data, showing average incomes.
3. Housing costs, including average rents.
4. The nature and distribution of different types of businesses and amenities in a selection of neighbourhoods in each city.

Source Data for reference:

	New York City	**Toronto**
Housing costs	Source: https://www.zillow.com/research/data/	Source: http://trreb.ca/
Population data	https://uspopulation2020.com/population-of-new-york-city-2020-largest-city-of-new-york-state.html https://www.census.gov/quickfacts/fact/table/newyorkcountymanhattanboroughnewyork,bronxcountybronxboroughnewyork,qu	https://populationstat.com/canada/toronto

	eenscountyqueensboroughnewyork,kings countybrooklynboroughnewyork,richmond countystatenislandboroughnewyork,newyo rkcitynewyork/INC110218	
Income data	https://www.averagesalarysurvey.com/ne w-york-city-united-states	https://www.averagesalarysurvey.com/toro nto-canada
Geographical data (latitude and longitude data)	US Zip codes with latitude/longitude https://gist.github.com/erichurst/7882666	Toronto neighborhoods: https://en.wikipedia.org/wiki/List_of_postal _codes_of_Canada:_M Latitude and Longitude: http://cocl.us/Geospatial_data
Local Businesses data	Foursquare.com data downloaded using developer open API https://foursquare.com/	