Peer-graded Assignment: Capstone Project - The Battle of Neighborhoods

Now that you have been equipped with the skills and the tools to use location data to explore a geographical location, over the course of two weeks, you will have the opportunity to be as creative as you want and come up with an idea to leverage the Foursquare location data to explore or compare neighborhoods or cities of your choice or to come up with a problem that you can use the Foursquare location data to solve.

1) Introduction/Business Problem

The idea of this study is to help people planning to open a new restaurant in Toronto to choose the right location by providing data about the income and population of each neighborhood as well as the competitors already present on the same regions.

2) Downloading and Prepping Data

To provide the stakeholders the necessary information I'll be combining Toronto's 2016 Census that contains Population, Average income per Neighborhood with Toronto’s Neighborhoods shapefile and Foursquare API to collect competitors on the same neighborhoods.

Toronto's Census data is publicly available at this website: https://www.toronto.ca/city-government/data-research-maps/open-data/open-data-catalogue/#8c732154-5012-9afe-d0cd-ba3ffc813d5a

Toronto Neighborhoods' shapefile is publicly available at this website: https://www.toronto.ca/city-government/data-research-maps/open-data/open-data-catalogue/#a45bd45a-ede8-730e-1abc-93105b2c439f

3) Methodology

For this report I used a few different maps that could help a new investor to decide the best neighborhood to open a restaurant in Toronto based on it's income, population and available competitors. To do that I've used the 2016 Census information combined with choropleth maps to visually display the wealthier and more populational neighborhoods and Foursquare data to display the current restaurants in each region.

4) Results

Comparing the maps, we can notice the majority of the restaurants grouped on main streets and on the south of the city, although some of the wealthiest neighborhoods are up to the north. Also, the areas with a dense population don't reflect on the number of restaurants.

5) Discussion

When I first decided to create this study, I was expecting to find clusters of restaurants in certain regions and the result didn't meet that expectation.

6) Conclusion

This report may be helpful for someone planning on opening a restaurant in Toronto, by comparing the current offers and neighborhoods profiles, however it may not cover all variables such as access to public transportation or even the restaurants profiles, so it shall not be used as a single decision-making tool.