

Applied DS Capstone Project - The Battle of Neighborhoods

1) Business Problem

In a multi-ethnic, restaurant-heavy country like Canada, it can sometimes be a bit of a challenge to define what exactly counts as “Canadian food.” In general, most Canadians eat a largely “western” diet broadly similar to the diet of Americans and Europeans, with a heavy focus on processed grain and dairy products, farm-grown beef and chicken, certain cooked or fresh fruits and vegetables, and questionable amounts of salt and sugar. The demographics of Toronto, Ontario, Canada make Toronto one of the most multicultural and multiracial cities in the world. In 2016, 51.5% of the residents of the city proper belonged to a visible minority group, compared with 49.1% in 2011 and 13.6% in 1981.

So as part of this project, we will list and visualize all major parts of Toronto City that has great indian restaurants.

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) Data

For this project we need the following data :

Toronto City data that contains list Boroughs, Neighborhoods

Source : https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M

This data set contains the required information. And we will use this data set to explore various neighborhoods of Toronto city.

Indian resturants in each neighborhood of Toronto.

Source : Fousquare API

By using this api we will get all the venues in each neighborhood. We can filter these venues to get only indian resturants.

GeoSpace data

Source : http://cocl.us/Geospatial_data

By using this geo space data we will get the Toronto Borough boundaries that will help us visualize choropleth map.

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. In order 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

Results section where you discuss the 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 final 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.