

Introduction

This project aims to analyze and deduce the possibilities and technicalities behind seed investments in Canada, and more specifically, Toronto. There are several reasons for my choosing of Toronto to analyze for seed investment. There is a large slew of data available online about Toronto, and I also have visited and previously lived there, so I've witnessed much of its growth and many of its businesses as well. Moreover, with the expansion of modern society and technology, along with the political landscape of the United States, many companies and venture capitalists are flocking to Canada in order to start new companies and consumer hotspots. In fact, last year Toronto itself grew at a rate of almost 2.4% annually since 2009 and constitutes almost 20% of Canada's national GDP. I want to conduct data analysis to do so since there are many different habits throughout the city, and it's important to know which things to invest in and in which areas to as well. Accordingly, it's important to understand the various localities in Canada, and what they have to offer in terms of population centers which can be found using clustering maps and various strategies.

Data

I'll be using data from Foursquare, and various areas that are hotspots in the Toronto area (which is the fastest growing area in Canada). This will primarily be constituted of various restaurants that are popular in the Toronto area. I will also be finding out the most popular venues in these areas in order to see the best, high demand firms which should be built and developed further. From there, I'll be deciding which area is the best for seed investment and growth. My data will be helpful in the purpose of my observation for several reasons. This will allow me to determine the best areas in which to invest, as I can see where the most popular locations are, which will in turn attract the most consumer interaction and consumer expenditure. I can also see the various types of popular habits across the populations, which will allow me to determine the best type of seed investment and be a primary determinant for how diversified my investments will be in the area.

Methodology

My code does several things in order to determine the strongest areas for seed investment, and the various types of seed investments as well. Firstly, I will be dividing Toronto into various types of areas of different demographics and populations known as “Boroughs.” These communities all have different mannerisms, habits, and interests, so I find it important to divide the city (which is already large) into these boroughs so I can see the different areas within Toronto. I’ll be finding their latitudes and longitudes, and then, using Foursquare API data, I will investigate the most popular areas and Points of Interest in these various boroughs, which will allow me to see what will be most well received and what is a suitable area of investment in these different boroughs. Finally, I’ll be visualizing it into clusters to show how Toronto is broken down.

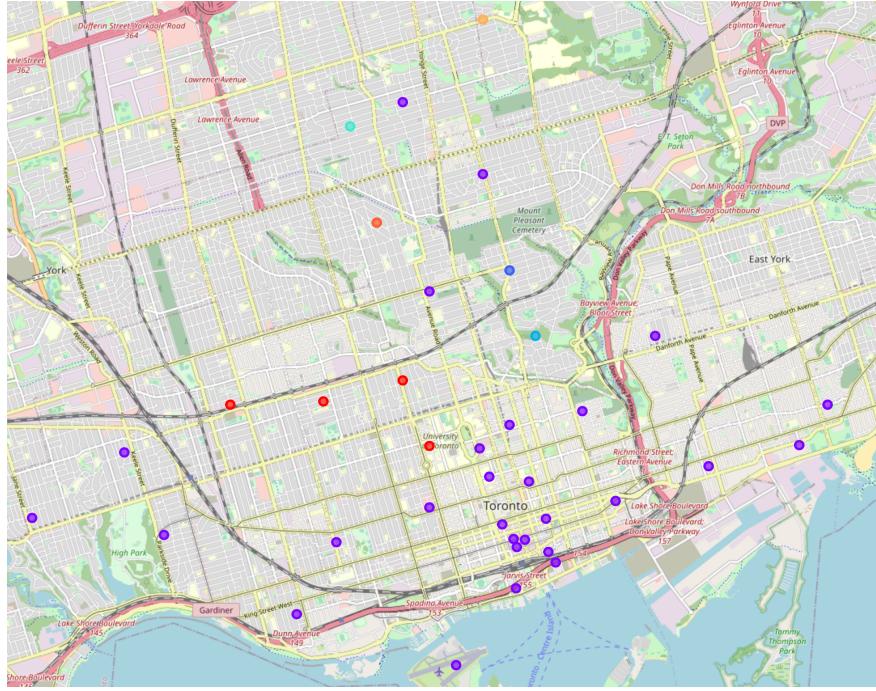
Results

Postal Code	Borough	Neighbourhood
M3A	North York	Parkwoods
M4A	North York	Victoria Village
M5A	Downtown Toronto	Regent Park, Harbourfront
M6A	North York	Lawrence Manor, Lawrence Heights
M7A	Downtown Toronto	Queen's Park, Ontario Provincial Government
M9A	Etobicoke	Islington Avenue, Humber Valley Village
M1B	Scarborough	Malvern, Rouge
M3B	North York	Don Mills
M4B	East York	Parkview Hill, Woodbine Gardens
M5B	Downtown Toronto	Garden District, Ryerson
M6B	North York	Glencairn
M9B	Etobicoke	West Deane Park, Princess Gardens, Martin Grov...
M1C	Scarborough	Rouge Hill, Port Union, Highland Creek

The first part of my results consisted of me grouping the various postal codes (and boroughs) with their neighborhoods. This did several things to aid my investigation. Firstly, this allowed me to view the areas more holistically and group together neighborhoods by their specific boroughs. This also allowed me to get a clearer sense of which neighborhoods were in each borough, and in terms of seed investments, allowed me to segment each borough into its different neighborhoods. This may prove useful in another investigation related to neighborhood segmentation, but for the purposes of my investigation, this allowed me to be concise and accurate when viewing the various boroughs in which to invest in .

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	8th Most Common Venue	9th Most Common Venue
0 Berzy Park	Coffee Shop	Café	Cheese Shop	Farmers Market	Bakery	Seafood Restaurant	Restaurant	Beer Bar	Cocktail Bar
1 Brookton, Parkdale Village, Exhibition Place	Café	Breakfast Spot	Coffee Shop	Climbing Gym	Burrito Place	Italian Restaurant	Restaurant	Intersection	Stadium
2 Business reply mail Processing Centre, 1000 Yonge St	Light Rail Station	Park	Auto Workshop	Comic Shop	Pizza Place	Butcher	Recording Studio	Burrito Place	Restaurant
3 CN Tower, King and Spadina, 1000 Yonge St, Lands, Harbourfront	Airport Terminal	Airport Lounge	Airport Service	Plane	Harbor / Marina	Rental Car Location	Coffee Shop	Boat or Ferry	Bar
4 Central Bay Street	Coffee Shop	Italian Restaurant	Sandwich Place	Café	Japanese Restaurant	Salad Place	Bubble Tea Shop	Burger Joint	Bar
5 Christie	Grocery Store	Café	Park	Athletics & Sports	Nightclub	Candy Store	Italian Restaurant	Restaurant	Diner
6 Church and Wellesley	Coffee Shop	Japanese Restaurant	Sushi Restaurant	Restaurant	Gay Bar	Yoga Studio	Bubble Tea Shop	Hotel	Mediterranean Restaurant
7 Commerce Court, Victoria Hotel	Coffee Shop	Café	Restaurant	Hotel	Gym	American Restaurant	Seafood Restaurant	Deli / Bodega	Italian Restaurant
8 Daverville	Sandwich Place	Pizza Place	Dessert Shop	Café	Italian Restaurant	Sushi Restaurant	Gym	Coffee Shop	Gas Station
9 Daverville North	Park	Gym	Food & Drink Shop	Department Store	Sandwich Place	Gym / Fitness Center	Hotel	Pizza Place	Breakfast Spot
10 Dufferin, Dovercourt Village	Pharmacy	Bakery	Middle Eastern Restaurant	Bank	Bar	Supermarket	Brewery	Music Venue	Grocery Store
11 First Canadian Place, Underground city Forest Hill North & West, Forest Hill Road Park	Coffee Shop	Café	Hotel	Restaurant	Gym	Japanese Restaurant	American Restaurant	Asian Restaurant	Steakhouse
12 Garden District, Ryerson	Clothing Store	Coffee Shop	Bubble Tea Shop	Japanese Restaurant	Sushi Restaurant	Donut Shop	Doner Restaurant	Dog Run	Distribution Center
13 Harbourfront East, Union Station, Toronto Islands	Coffee Shop	Aquarium	Café	Hotel	Scenic Lookout	Sporting Goods Shop	Restaurant	Fried Chicken Joint	Brewery
15 High Park, The Junction South	Mexican Restaurant	Café	Thai Restaurant	Park	Cajun / Creole Restaurant	Bar	Bakery	Flea Market	Fast Food Restaurant
16 India Bazaar, The Beaches West	Park	Pizza Place	Food & Drink Shop	Pub	Steakhause	Fast Food Restaurant	Burrito Place	Sushi Restaurant	Fish & Chips Shop
17 Kensington Market, Chinatown, Grange Park	Café	Vegetarian / Vegan Restaurant	Coffee Shop	Vietnamese Restaurant	Bar	Mexican Restaurant	Gaming Café	Dumpling Restaurant	Burger Joint
18 Lawrence Park	Park	Swim School	Bus Line	College Gym	College Cafeteria	Dumpling Restaurant	Donut Shop	Doner Restaurant	Dog Run
19 Little Portugal, Trinity	Bar	Restaurant	Coffee Shop	Vietnamese Restaurant	Men's Store	Vegetarian / Vegan Restaurant	Asian Restaurant	Café	Cuban Restaurant
20 Moore Park, Summerhill East	Trail	Women's Store	Cuban Restaurant	Dumpling Restaurant	Donut Shop	Doner Restaurant	Dog Run	Distribution Center	Discount Store

Here is a breakdown of a couple of these neighborhoods. Next, I used my code to find a breakdown of all the different neighborhoods, and all the different common venues in each borough. This was important since it allowed me to see which types of services and venues were in demand in each neighborhood, and which ones were in shortage. I can use this to determine which types of developments to invest in, and which to stay away from in each neighborhood. There are several observations that can be made. Firstly, as predicted, each borough has vastly different common venues, which reflect the various tastes and preferences of each neighborhood. At the same time, there are some commonalities. I can use this data in order to find overrepresented venues and also underrepresented venues, which can be leveraged for seed investments into local firms and venues to be built.



This visualization shows the breakdown of Toronto at large, with a couple trends being immediately apparent. Firstly, many of these neighborhoods are inner-city concentrated, which is important for seed investment because residential developments are most likely a non-factor for seed investments. Secondly, many of these boroughs are located very close to each other, but have different common venues, which may be an indication of the fact that different people in “blocks” visit different restaurants and have different habits. This is important when deciding which things to build and which services/companies need to be invested in and developed further.

Discussion

From this exploration, there are several important discoveries. Firstly, seed investments in the city of Toronto will be extremely diversified, due to the fact that many of the boroughs have very different interests and preferences. This is important for the implementation of residential and commercial investments because the potential capital to be used will vary greatly based on the specific borough. Also, the close clustering of the various boroughs is important to notice since it will be imperative for city planners to segment and landscape the

area very well in order to properly build and develop the correct establishments in the right areas. If not, then the investments won't be as successful since the boroughs are all intrinsically diverse.

Conclusion

In this exploration, Toronto was analyzed in order to navigate the various areas of the city and to determine the viability of seed investments in local communities. This was important not only in a hypothetical situation, but in the real world when deciding and deliberating over actual investments into city developments, since all investors in cities and communities need to make the correct decisions when it comes to retail and commercial developments in order to meet demand and increase profitability and GDP for the cities in question. In the future, I would like to look further into the city and perhaps see polling data with individual residents to see what demand is, since there may be gaping holes within the city in regard to establishments that are there and ones that need to be built.