

# Chocolate Marketing Campaign in Coffee Shops - Toronto

By Georges Moussa

## A- Introduction and Business Problem:

### Chocolate company concerned:

- Product: chocolate
- Entering a new market through coffee shops.

### Requests:

- The company wants to know the most recommended places in Canada to start a social media marketing campaign.
- The region has to be relatively small with a high number of coffee shops with good ratings.

## Location selection:

### *Proposing Toronto for the following reasons:*

- 1- Toronto: capital of Ontario and most populated city in Canada (around 3 million in 2018).
- 2- Toronto is also an international center of business, finance and is one of the most cosmopolitan cities in the world.
- 3- Toronto is an important destination for immigrants to Canada.

## Location selection:

### *Proposing Toronto for the following reasons:*

- 4- The city contains cultural institutions with over 43 million tourists each year.
- 5- Toronto Stock Exchange (headquarters of Canada's five largest banks) with a highly diversified economy.
- 6- Toronto has a strategic position with well connected infrastructure linking it to the surrounding cities.

## Choosing Toronto:

- Therefore, we will list and visualize all coffee shops to target them in the social media marketing strategy for selling new chocolate bars in Toronto City.
- They will have the highest frequencies in their neighborhoods and good ratings.

## B- Data:

Get data and start exploring it:

- Toronto City data (lists of neighborhoods) getting the *table from Wikipedia*.
- Get latitudes and longitudes from [https://cocl.us/Geospatial\\_data](https://cocl.us/Geospatial_data)
- Description: Data contains the essential columns to explore neighborhoods while focusing on coffee shops.

Data source : *Foursquare API*



## C- Methodology and Data Analysis -1:

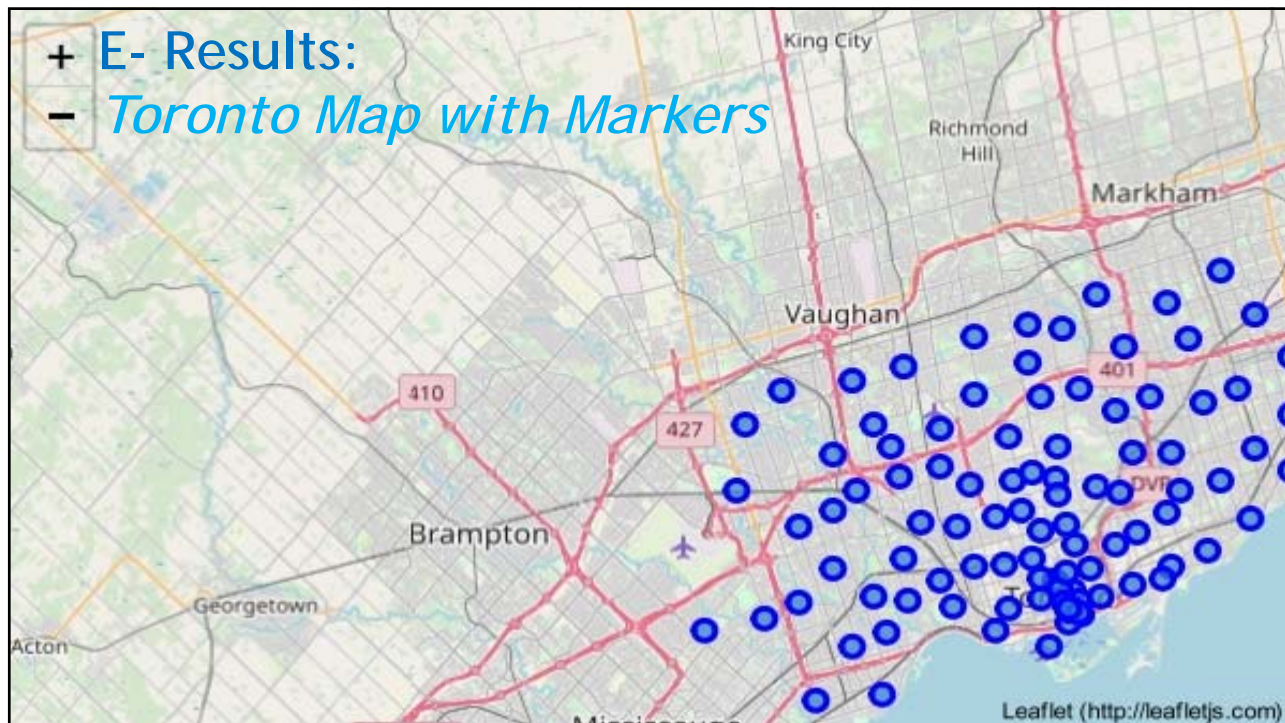
- Get postal codes to represent the neighborhoods from Wikipedia table:  
[https://en.wikipedia.org/wiki/List\\_of\\_postal\\_codes\\_in\\_Canada](https://en.wikipedia.org/wiki/List_of_postal_codes_in_Canada)
- Collect the Toronto city data from  
[https://cocl.us/Geospatial\\_data](https://cocl.us/Geospatial_data)
- Use Foursquare API to find all venues for each neighborhood.

## C- Methodology and Data Analysis -2:

- Filter out all venues to get the coffee shops with the highest frequencies.
- Use rating for each coffee shop, then sort data.
- Finally get the most relevant cluster for Coffee shops and Cafés (*with Jupiter Notebook and Python as a kettle*).

## D- Questions to be answered using the dataset:

- 1- What are the locations with the highest frequencies in Toronto City for coffee shops?
- 2- Which cluster is the most relevant to the chocolate company based on the data table from Foursquare?
- 3- What are the best places to choose as targets for the marketing strategy?



## E- Results:

### *Venues with highest coffee shops frequencies*

----Agincourt----

	venue	freq
0	Coffee Shop	1.0
1	Arts & Crafts Store	0.0
2	Deli / Bodega	0.0

----Bathurst Manor, Downsview North,-----

	venue	freq
0	Coffee Shop	1.0
1	Arts & Crafts Store	0.0
2	Deli / Bodega	0.0

----Alderwood, Long Branch----

	venue	freq
0	Café	0.5
1	Coffee Shop	0.5
2	Arts & Crafts Store	0.0

----Bayview Village----

	venue	freq
0	Café	1.0
1	Arts & Crafts Store	0.0
2	Deli / Bodega	0.0

## E- Results:

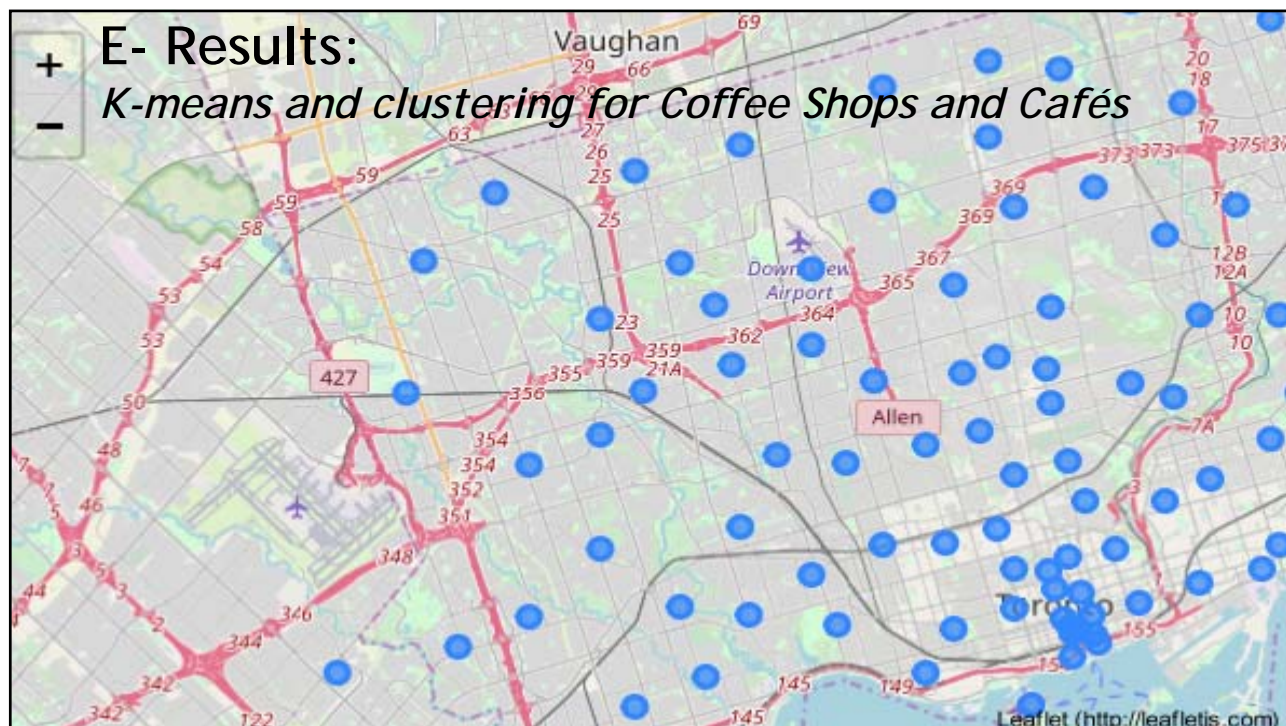
### *Coffee shops and Cafés as 1<sup>st</sup> most common venues*

Out[57]:

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue
0	Agincourt	Coffee Shop	Vegetarian / Vegan Restaurant	Coworking Space
1	Alderwood, Long Branch	Café	Coffee Shop	Vegetarian / Vegan Restaurant
2	Bathurst Manor, Downsview North, Wilson Heights	Coffee Shop	Vegetarian / Vegan Restaurant	Coworking Space
3	Bayview Village	Café	Vegetarian / Vegan Restaurant	Coworking Space
4	Bedford Park, Lawrence Manor East	Café	Coffee Shop	Vegetarian / Vegan Restaurant

As we see in the table above, we found the neighborhoods with "Coffee Shop" and "Café" as the most common venues.





Cluster 1 returned Boroughs with Coffee shops and Cafés as the 1<sup>st</sup> and 2<sup>nd</sup> most Common venues respectively.

Out[61]:

	Borough	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue
2	Downtown Toronto	0.0	Coffee Shop	Café	Bakery
4	Downtown Toronto	0.0	Coffee Shop	Café	Vegetarian / Vegan Restaurant
9	Downtown Toronto	0.0	Coffee Shop	Café	Tea Room
15	Downtown Toronto	0.0	Coffee Shop	Café	Restaurant
20	Downtown Toronto	0.0	Coffee Shop	Café	Creperie
24	Downtown Toronto	0.0	Coffee Shop	Café	Tea Room
29	East York	0.0	Coffee Shop	Café	Vegetarian / Vegan Restaurant

In Cluster 2, Coffee shops and Cafés are not in the top 3 of the most Common venues: do not use.

Out[62]:

	Borough	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue
100	East Toronto	1.0	Comic Shop	Vegetarian / Vegan Restaurant	Coworking Space
102	Etobicoke	1.0	Convenience Store	Vegetarian / Vegan Restaurant	Coworking Space

The second cluster is of no use from our chocolate company who is interested only in Coffee Shops and Cafés.

Cluster 3 returned Boroughs with Cafés and Coffee shops as the 1<sup>st</sup> and 2<sup>nd</sup> most Common venues respectively.

	Borough	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue
8	East York	2.0	Café	Coffee Shop	Vegetarian / Vegan Restaurant
10	North York	2.0	Café	Coffee Shop	Vegetarian / Vegan Restaurant
13	North York	2.0	Café	Coffee Shop	Vegetarian / Vegan Restaurant
17	Etobicoke	2.0	Café	Coffee Shop	Vegetarian / Vegan Restaurant
25	Downtown Toronto	2.0	Café	Coffee Shop	Vegetarian / Vegan Restaurant
31	West Toronto	2.0	Café	Coffee Shop	Vegetarian / Vegan Restaurant
34	North York	2.0	Pool Hall	Café	Coffee Shop



## Cluster 4

0.000000

	Borough	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue
7	North York	3.0	Café	Vegetarian / Vegan Restaurant	Coworking Space
14	East York	3.0	Café	Vegetarian / Vegan Restaurant	Coworking Space
21	York	3.0	Café	Vegetarian / Vegan Restaurant	Coworking Space
26	Scarborough, Toronto	3.0	Café	Vegetarian / Vegan Restaurant	Coworking Space
39	North York	3.0	Café	Vegetarian / Vegan Restaurant	Coworking Space
58	Scarborough, Toronto	3.0	Café	Vegetarian / Vegan Restaurant	Coworking Space

**So, the fourth cluster is for Borough with Café as the most common venue and no Coffee Shop in the top 3.**

## Cluster 5 returned Boroughs with Coffee shops only as the 1<sup>st</sup> most Common venues: no Café in Top 3

	Borough	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue
1	North York	4.0	Coffee Shop	Vegetarian / Vegan Restaurant	Coworking Space
3	North York	4.0	Coffee Shop	Vegetarian / Vegan Restaurant	Coworking Space
19	East Toronto	4.0	Coffee Shop	Vegetarian / Vegan Restaurant	Coworking Space
22	Scarborough, Toronto	4.0	Coffee Shop	Vegetarian / Vegan Restaurant	Coworking Space

## F- Conclusions -1:

1- As a conclusion, we found that venues in clusters 1 and 3 are the most interesting ones: in fact, they contain Coffee Shops and Cafés as the first and second most common places.

2- Based on the frequencies of the places, targeting those venues would be the most profitable since the company would be targeting the maximum number of customers.

## F- Final Conclusions -2:

. *For cafés*, the best places to start the marketing campaign are East York and North York (Café maximum frequencies).

. *For Coffee shops*, the best places to start the marketing campaign are Downtown Toronto and also East York (Coffee Shop maximum frequencies).

## G- Limitations:

- . The ranking is only based on the frequencies in a neighborhood, the most common venues (from most significant clusters) and the ratings of coffee shops.
- . The pertinence of our decision can be improved by making a survey to get deeper insights from the locations chosen before implementing the marketing plan.