Introduction / Business Problem

Commercial location is very important for whether a company can make a profit. A good location can help a company reduce costs and bring in a large number of orders, thereby achieving a considerable profit. So if a restaurant wants to open in Toronto, **how should it choose a location**?

Project Idea

- FourSquare is a mobile phone service website based on user location information (LBS), and encourages mobile phone users to share their current location and other information with others. Therefore, we can know whether restaurants in a certain area are more popular through this website. Generally speaking, the popularity of restaurants in a certain area is related to the income and population density of a certain area. Therefore, I will combine the data from the Canada Statistics and the data provided by Foursquare to provide recommendations for restaurant location.

- Related Websites: https://www.toronto.ca/ext/open_data/catalog/data_set_files/2016_neighbourhood_profiles.csv; https://foursquare.com/explore?q=&near=toronto

Methodology

- I used the combination of the 2016 Toronto information and the map to visually show the income, people movement and densely populated neighborhoods, while the Foursquare data shows the current restaurants in each area

Data display

	Category	Topic	Data Source	Characteristic	City of Toronto	Agincourt North	Agincourt South-Malvern West	Alderwood	Annex	Banbury-Don Mills	Bathurst Manor	Bay Street Corridor
0	Neighbourhood Information	Neighbourhood Information	City of Toronto	Neighbourhood Number	NaN	129	128	20	95	42	34	76
1	Neighbourhood Information	Neighbourhood Information	City of Toronto	TSNS2020 Designation	NaN	No Designation	No Designation	No Designation	No Designation	No Designation	No Designation	No Designation
2	Population	Population and dwellings	Census Profile 98-316-X2016001	Population, 2016	2,731,571	29,113	23,757	12,054	30,526	27,695	15,873	25,797
3	Population	Population and dwellings	Census Profile 98-316-X2016001	Population, 2011	2,615,060	30,279	21,988	11,904	29,177	26,918	15,434	19,348
4	Population	Population and dwellings	Census Profile 98-316-X2016001	Population Change 2011-2016	4.50%	-3.90%	8.00%	1.30%	4.60%	2.90%	2.80%	33.30%
5	Population	Population and dwellings	Census Profile 98-316-X2016001	Total private dwellings	1,179,057	9,371	8,535	4,732	18,109	12,473	6,418	18,436
6	Population	Population and dwellings	Census Profile 98-316-X2016001	Private dwellings occupied by usual residents	1,112,929	9,120	8,136	4,616	15,934	12,124	6,089	15,074

Data display

	Population	Average_Income	Population_Change	Population Change
Lawrence Park South	15,179	111,586	NaN	0.70%
Casa Loma	10,968	115,033	NaN	4.60%
Rosedale-Moore Park	20,923	134,865	NaN	1.40%
Forest Hill South	10,732	142,627	NaN	-1.80%
Bridle Path-Sunnybrook-York Mills	9,266	193,454	NaN	6.30%
Black Creek	21,737	23,786	NaN	-1.50%
Mount Olive-Silverstone-Jamestown	32,954	24,122	NaN	0.50%
Oakridge	13,845	24,247	NaN	2.60%
Milliken	26,572	25,109	NaN	-2.20%
Glenfield-Jane Heights	30,491	25,395	NaN	-2.90%
Flemingdon Park	21,933	25,608	NaN	-1.10%
Thorncliffe Park	21,108	25,675	NaN	9.80%
Humbermede	15,545	26,403	NaN	-1.90%
Malvern	43,794	26,505	NaN	-2.90%
York University Heights	27,593	26,651	NaN	-0.40%
Eglinton East	22,776	26,865	NaN	-0.20%
Agincourt North	29,113	26,955	NaN	-3.90%
Taylor-Massey	15,683	27,064	NaN	0.60%

Humber Summit	12,416	27,334	NaN	-0.90%
Woburn	53,485	27,341	NaN	0.30%
Kennedy Park	17,123	27,439	NaN	0.40%
Mount Dennis	13,593	27,461	NaN	3.40%
Ionview	13,641	27,852	NaN	4.20%
Steeles	24,623	27,889	NaN	-1.60%
Agincourt South-Malvern West	23,757	27,928	NaN	8.00%
L'Amoreaux	43,993	27,944	NaN	-2.10%
Dorset Park	25,003	28,052	NaN	2.60%
West Humber-Clairville	33,312	28,066	NaN	-2.30%
Rustic	9,941	28,118	NaN	-0.10%
Elms-Old Rexdale	9,456	28,355	NaN	-1.00%
Morningside	17,455	28,497	NaN	-0.80%
North St. James Town	18,615	28,541	NaN	4.40%
Brookhaven-Amesbury	17,757	28,552	NaN	-0.20%
Westminster-Branson	26,274	28,613	NaN	3.30%
Scarborough Village	16,724	28,634	NaN	0.70%
Thistletown-Beaumond Heights	10,360	28,842	NaN	2.20%
Bendale	29,960	28,953	NaN	7.50%
Weston	17,992	28,965	NaN	-1.00%
Keelesdale-Eglinton West	11,058	29,133	NaN	3.90%
West Hill	27,392	29,221	NaN	3.20%
Weston-Pelham Park	11,098	29,334	NaN	-7.60%
Beechborough-Greenbrook	6,577	29,453	NaN	1.40%

Result

- We can see that most restaurants are in the south, while the most prosperous neighborhoods are in the north, and the densely populated areas do not reflect the number of restaurants.

Discussion

- This may be related to the insufficient sample size provided by Foursquare

Result

- This report may be helpful to those who wish to open a restaurant in Toronto, but it should also be considered in terms of transportation convenience and rent