



Restaurant Type and Location Selection Analysis in New York City

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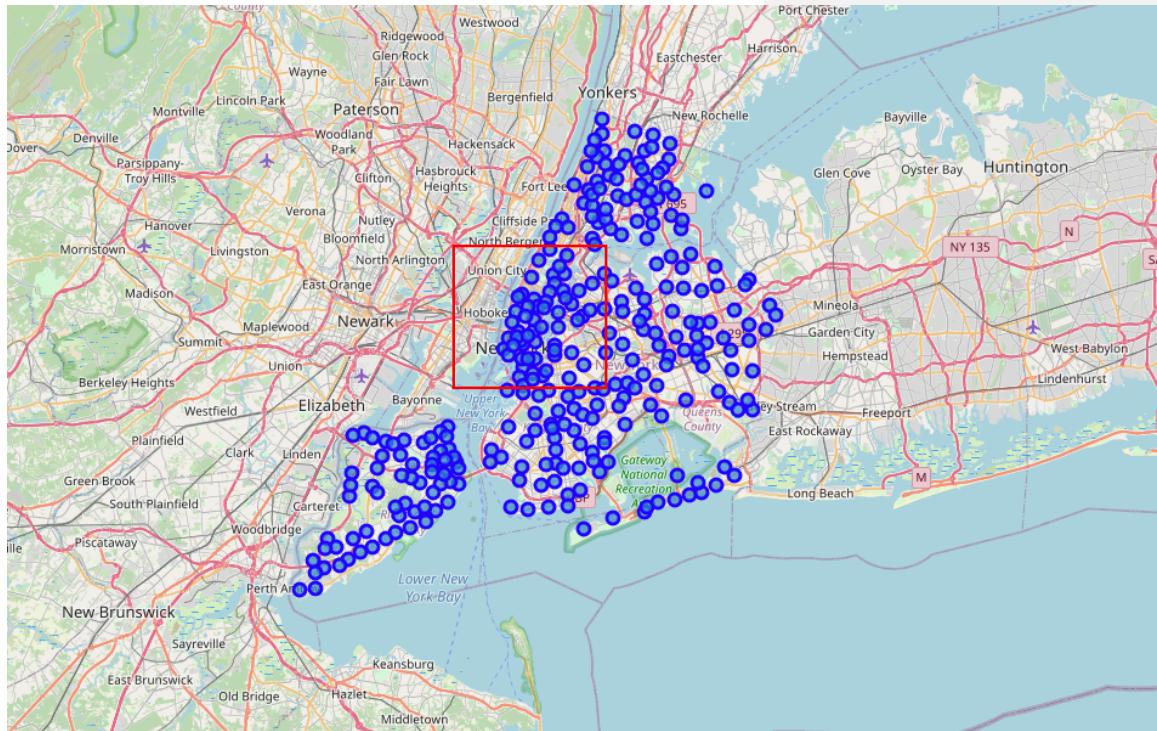
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The Neighborhoods in New York City

The Neighborhoods in New York City



5 boroughs and 306 neighborhoods.

From the Mapping Plot we can see that there are 306 neighborhoods in the New York City area. The most density area is the Manhattan area. So, we will focus on the Manhattan area as our focus area to select the location of the restaurant.



Manhattan Area

There are 37 Neighborhoods in Manhattan area



Other Area

The density of neighborhoods is much less than the Manhattan Area



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**The Venue Situation in each
Neighborhoods in Manhattan**

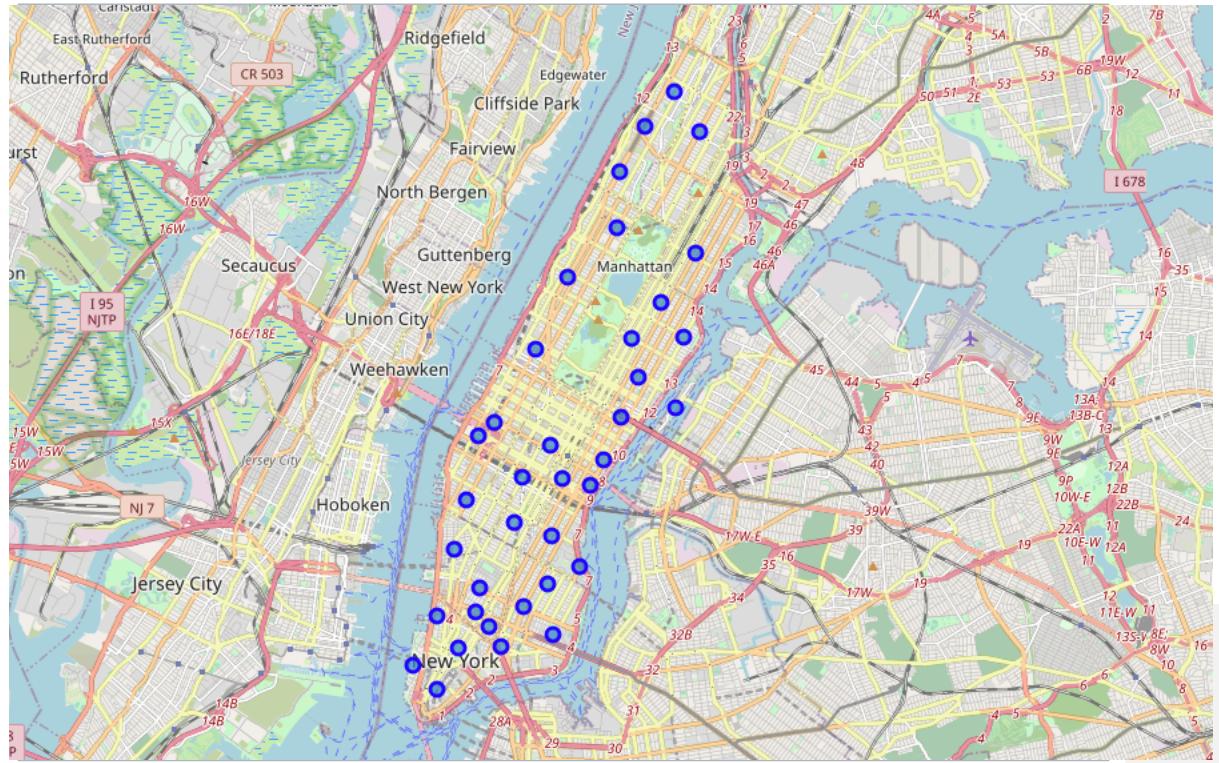
Basic Situation in Manhattan

Neighbors

There are total 37 Neighborhoods in Manhattan area scattered in the everywhere in the Manhattan area. And the most density area is the southern area of the Manhattan area

Restaurants

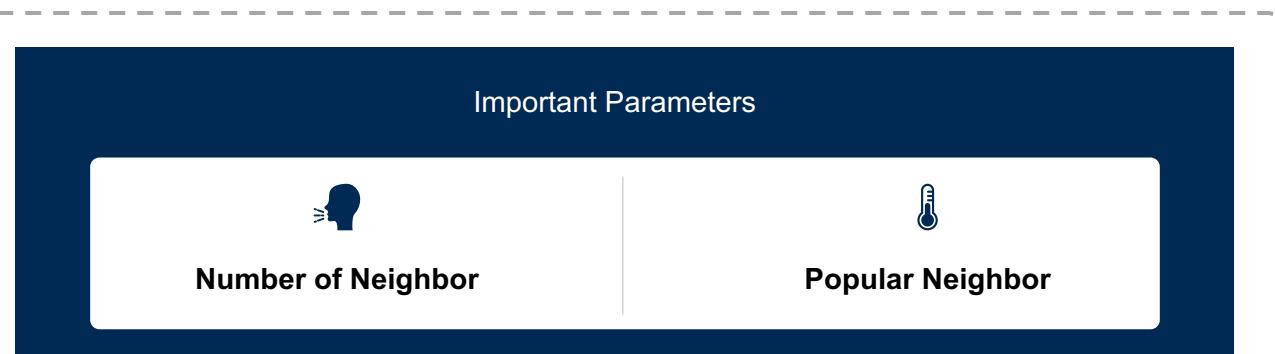
There are many types of restaurants in the Manhattan area including Chinese food, Italian Food and Mexican food, which is the most popular thee type.



Chinese Restaurant In Manhattan Area



Neighborhood	1st Most Common Venue	2nd Most Common Venue
Chinatown	Chinese Restaurant	Bakery
Lower East Side	Chinese Restaurant	Cocktail Bar



Number of Neighbor

From our analysis, we can say that the Chinese Restaurant is mainly located in only Neighborhood. On other hands, we can have the conclusion that the distribution of the Chinese Restaurant is very concentrated.

Popular Neighbor

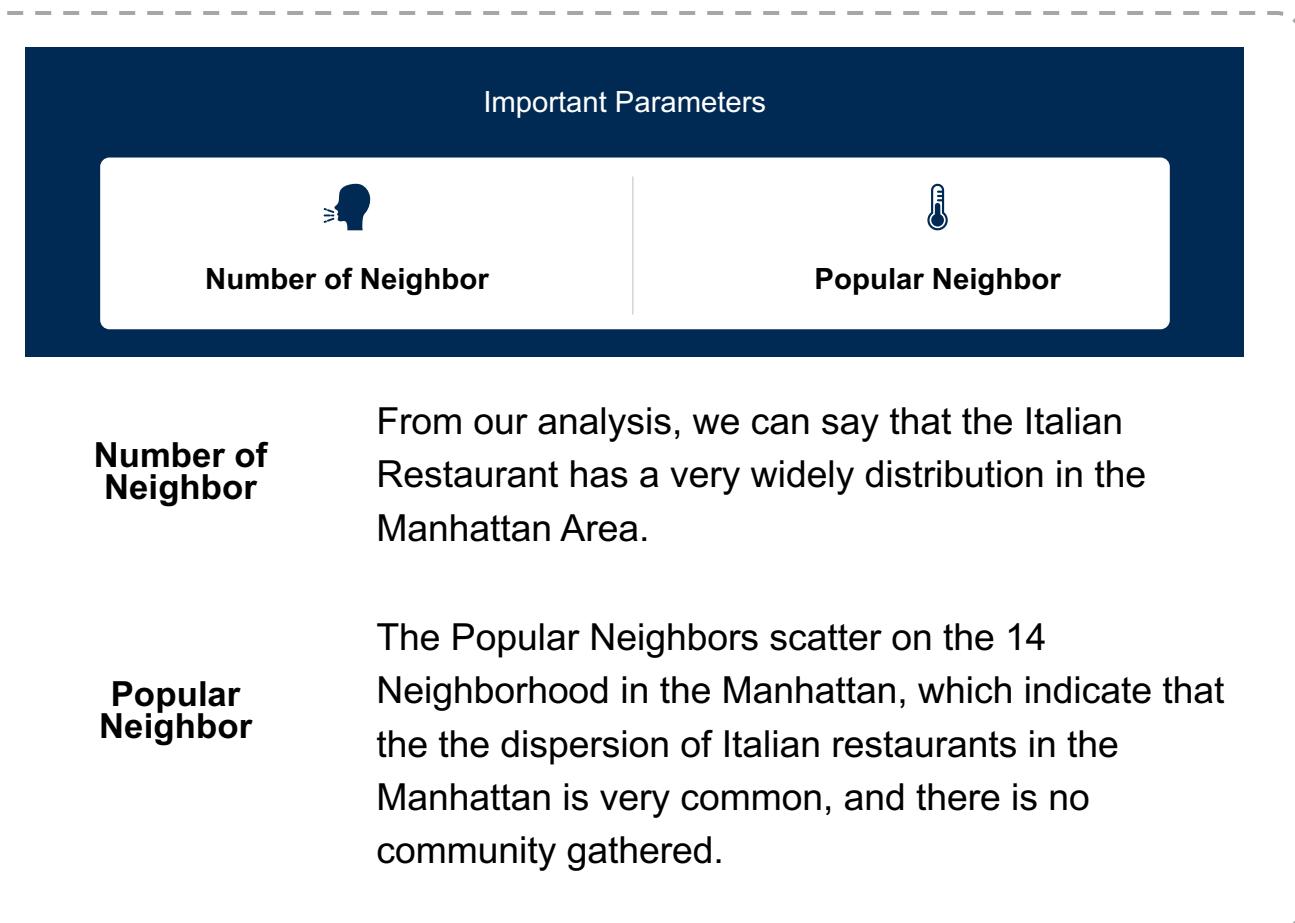
Chinatown and the Lower East Side are the two neighborhood that the restaurant is the most popular one of all the Venue.

Notice: The popular neighbor calculation is based on the 1st most common venue and the 2nd most common venue in the neighborhood

Italian Restaurant In Manhattan Area

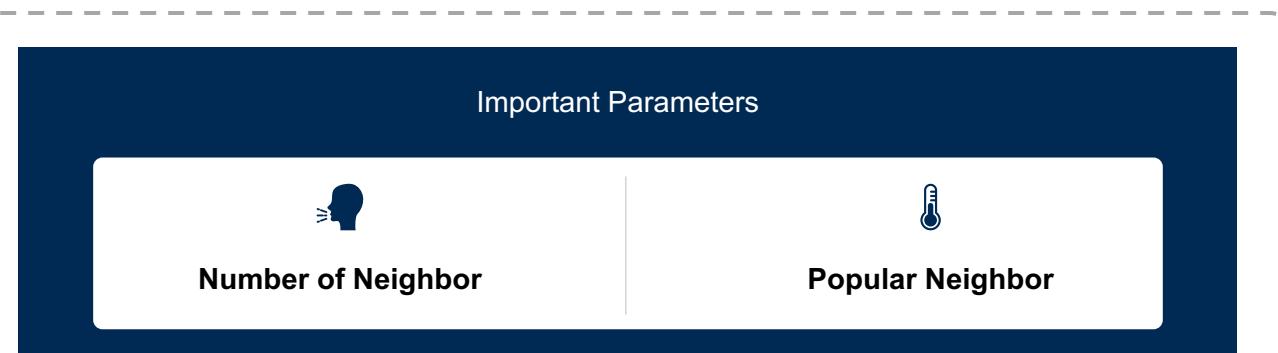
Neighborhood	1st Most Common Venue	2nd Most Common Venue
Clinton	Italian Restaurant	Theater
Greenwich Village	Italian Restaurant	Sushi Restaurant
Lenox Hill	Coffee Shop	Italian Restaurant
Little Italy	Bakery	Italian Restaurant
Manhattanville	Coffee Shop	Italian Restaurant
Noho	Italian Restaurant	Coffee Shop
Soho	Italian Restaurant	Coffee Shop
Sutton Place	Italian Restaurant	Gym / Fitness Center
Tribeca	Park	Italian Restaurant
Turtle Bay	Sushi Restaurant	Italian Restaurant
Upper East Side	Italian Restaurant	Bakery
Upper West Side	Italian Restaurant	Coffee Shop
West Village	Italian Restaurant	New American Restaurant
Yorkville	Italian Restaurant	Coffee Shop

Notice: The popular neighbor calculation is based on the 1st most common venue and the 2nd most common venue in the neighborhood



Mexican Restaurant In Manhattan Area

Chinese Restaurant		
Neighborhood	1st Most Common Venue	2nd Most Common Venue
East Harlem	Mexican Restaurant	Thai Restaurant
Inwood	Mexican Restaurant	Restaurant
Tudor City	Park	Mexican Restaurant



Number of Neighbor

From our analysis, we can say that the Mexican Restaurant is mainly located in 3 Neighborhoods. On other hands, we can have the conclusion that the distribution of the Mexican Restaurant is very concentrated.

Popular Neighbor

East Harlem and the Inwood are the two neighborhoods that the restaurant is the most popular one of all the Venues in Manhattan.

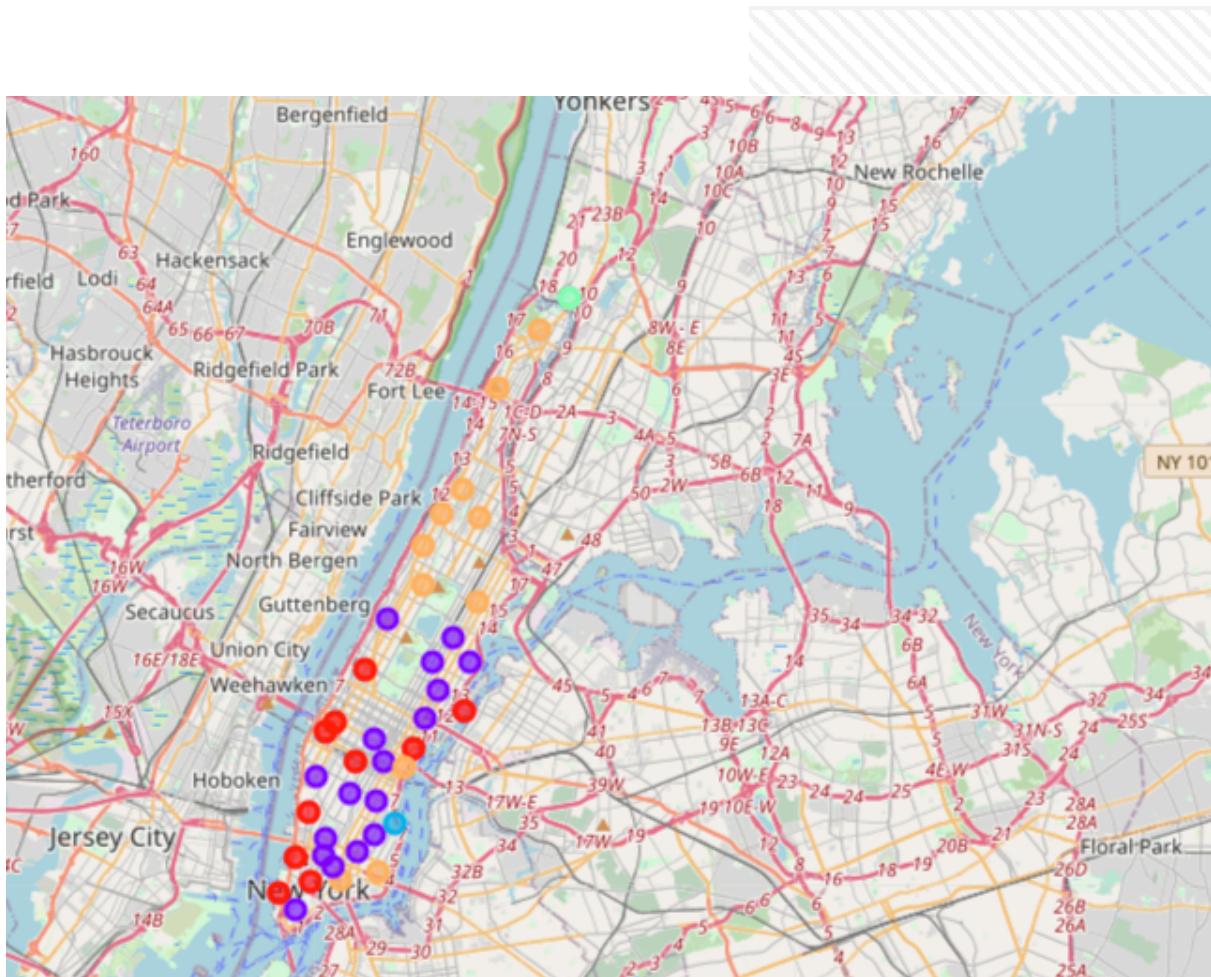
Notice: The popular neighbor calculation is based on the 1st most common venue and the 2nd most common venue in the neighborhood



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Neighborhood Clustering

Neighborhood Clustering



Cluster the neighborhoods into 5 clusters



Cluster 1 (Red)

Mainly include Park, Plaza, Restaurant



Cluster 2 (Purple)

Mainly include Restaurant, Bar, Coffee Shop



Cluster 3 (Blue)

Mainly include Park and Boar or Ferry



Cluster 4 (Green)

Mainly include Gym



Cluster 5 (Yellow)

Mainly include Park, Bar, Restaurant (especially Chinese Food)

Venue Situation in each Cluster

Neighborhood	1st Most Common Venue	2nd Most Common Venue
Roosevelt Island	Park	Bubble Tea Shop
Lincoln Square	Plaza	Café
Clinton	Italian Restaurant	Theater
Tribeca	Italian Restaurant	Park
West Village	Italian Restaurant	New American Restaurant
Battery Park City	Park	Hotel
Civic Center	Coffee Shop	Cocktail Bar
Midtown South	Korean Restaurant	Hotel
Turtle Bay	Sushi Restaurant	Italian Restaurant
Hudson Yards	Gym / Fitness Center	American Restaurant

Venue in Cluster 1

Neighborhood	1st Most Common Venue	2nd Most Common Venue
Upper East Side	Italian Restaurant	Bakery
Yorkville	Italian Restaurant	Coffee Shop
Lenox Hill	Coffee Shop	Italian Restaurant
Upper West Side	Italian Restaurant	Wine Bar
Midtown	Coffee Shop	Clothing Store
Murray Hill	Sandwich Place	Japanese Restaurant
Chelsea	Coffee Shop	Art Gallery
Greenwich Village	Italian Restaurant	Sushi Restaurant
East Village	Bar	Ice Cream Shop
Little Italy	Bakery	Italian Restaurant
Soho	Italian Restaurant	Coffee Shop
Gramercy	Bar	Pizza Place
Financial District	Coffee Shop	Pizza Place

Venue in Cluster 2

Neighborhood	1st Most Common Venue	2nd Most Common Venue
Stuyvesant Town	Boat or Ferry	Park

Venue in Cluster 3

Neighborhood	1st Most Common Venue	2nd Most Common Venue
Marble Hill	Gym	Coffee Shop

Venue in Cluster 4

Neighborhood	1st Most Common Venue	2nd Most Common Venue
Chinatown	Chinese Restaurant	Bakery
Washington Heights	Café	Bakery
Inwood	Mexican Restaurant	Lounge
Hamilton Heights	Pizza Place	Café
Manhattanville	Coffee Shop	Bar
Central Harlem	African Restaurant	Chinese Restaurant
East Harlem	Mexican Restaurant	Thai Restaurant
Lower East Side	Chinese Restaurant	Cocktail Bar
Manhattan Valley	Bar	Yoga Studio
Morningside Heights	Park	Bookstore
Tudor City	Mexican Restaurant	Café

Venue in Cluster 5



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**Restaurant Type Index (RTI)
in each Cluster**

Restaurant Type Index (RTI) in each Cluster

	1	2	3	4	5
CH_score	0.000000	0.000000	0.0	0.0	0.047628
IT_score	0.052632	0.09269	0.0	0.0	0.000000
MX_score	0.000000	0.000000	0.0	0.0	0.090909



RTI Definition

we create an index called Restaurant Type Index (RTI) to get to know the popular degree of different type of restaurant in each cluster.



Result of RTI

From the result, we can see that the cluster 1 and cluster 2 have a very large popularity in Italian food and the cluster 5 have a large popularity in both Chinese food and Mexican food.



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**Location Selection based on
the type of restaurant**

Location Selection Based on the Type of Restaurant

01



Italian Food

If our client wants to start an Italian restaurant, the area in cluster 2 is a good choice for him to enjoy profit from the Combined Effect.

02



Chinese Food

If our client wants to start a Chinese food, the area in cluster 5 is a good choice for him to enjoy profit from the Combined Effect.

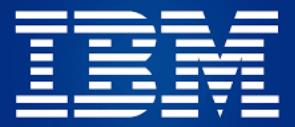
03



Mexican Food

And if our client wants to start a Mexican food restaurant, the area in cluster 5 is a good choice for him to enjoy profit from the Combined Effect.





Thanks

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