



Analysis for a best location to open a Japanese restaurant in New York

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2020/07/12

We are TAMAKI ZANMAI SUSHI GROUP that provide Japanese cuisine and that get successfully deployed conveyor belt sushi restaurant chains in Japan. We are planning to expand our business to United States, and we wish to open the first conveyor belt sushi restaurant in New York City. Now, we are looking for the best location to open TAMAKI ZANMAI NEW YORK.

Introduction section

We are TAMAKI ZANMAI SUSHI GROUP that provide Japanese cuisine and that get successfully deployed conveyor belt sushi restaurant chains in Japan. We are planning to expand our business to United States, and we wish to open the first conveyor belt sushi restaurant in New York City. Now, we are looking for the best location to open TAMAKI ZANMAI NEW YORK. In TAMAKI ZANMAI NEW YORK, we plans to provide Sushi, Tempra, Japanese noodles including ramen, and so on.

BUSINESS PROBLEM

Making up almost one-fifth of New York's Michelin-star establishments, Japanese restaurants are now pillars of the city's world-famous dining scene.

Namely, success a new Japanese Restaurant in New York City is very difficult, but it is very important for them to battle in New York City because they get people all over the world know their restaurant, and they can know their level with respect to world top restaurants.

Therefore, building a restaurant opening strategy including a decision on a location for opening the restaurant gets very important for TAMAKI ZANMAI SUSHI GROUP.



Belt conveyor belt sushi restaurant

TAMAKI ZANMAI SUSHI GROUP is finding the location that meets following all conditions.

- (1) The location not having nearby Japanese cuisine restaurants which have high ratings;
- (2) The location faced on the street having high traffic volume
- (3) The location being within a neighborhood where family layer, our main target customer, many lives

DATA

For finding the location conditions for opening TAMAKI ZANMAI NEW YORK in New York, we use the following data.

1. Neighborhood/Borough Boundaries (geojson)
Neighborhood_Boundaries.geojson:
<https://data.cityofnewyork.us/City->

Government/Neighborhood-Tabulation-Areas-NTA-/cpf4-rkhq
Borough_Boundaries.geojson:
<https://data.cityofnewyork.us/City-Government/Borough-Boundaries/tqmj-j8zm>

2. Locations and Ratings of Japanese cuisine restaurants
downloaded from <https://api.foursquare.com/> FourSquare
3. Traffic Volume Counts (2014-2018)
Traffic_Volume_Counts_2014-2018_.csv:
<https://data.cityofnewyork.us/Transportation/Traffic-Volume-Counts-2014-2018-ertz-hr4r>
Note: This dataset is counted by streets. I have used the traffic counts at 11:00-13:00 (lunch time) and 18:00-20:00 (dinner time) of this data
4. DOF: Summary of Neighborhood Sales by Neighborhood Citywide by Borough
<https://data.cityofnewyork.us/City-Government/DOF-Summary-of-Neighborhood-Sales-by-Neighborhood-/5ebm-myj7>

Methodology

We make Folium map with conducting inferential statistics based on the dataset above.

Result

The Folium colopreth map in FIG.1 is shown the distribution of house sales number to family layer in 2010. As shown in FIG.1, we can see that family layer living in Manhattan, Bronx and Staten Island is not so much, but family layer living in Queens and Brooklyn is much.

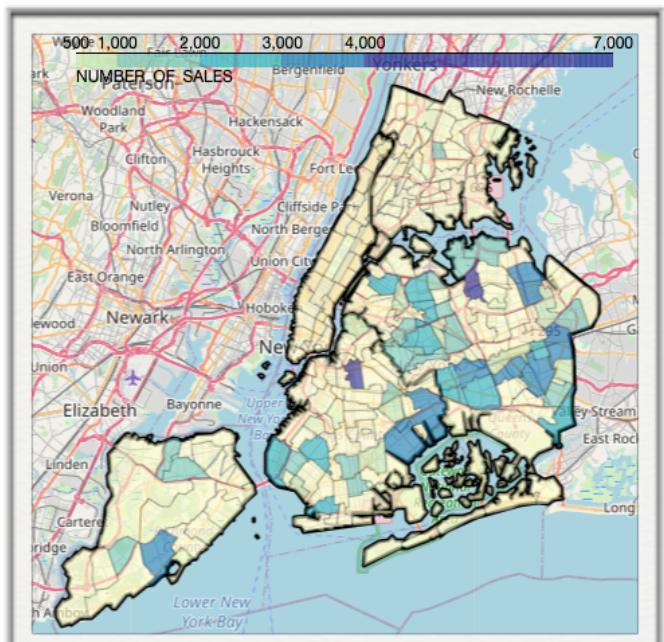


FIG. 1: The distribution of house sales number to family layer in 2010

Especially, in Queens and Brooklyn, we can see that family layer is increasing at neighborhoods indicated in Table 1 and Fig. 2. Specifically, the neighborhoods are **FLUSHING, BEDFORD, BAYSIDE, EAST NEW YORK** and so on.

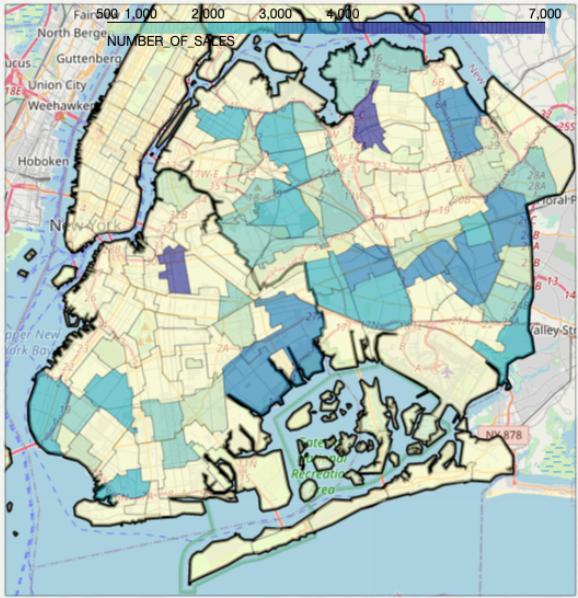


FIG. 2: The distribution of house sales number to family layer in 2010 in Queens and Brooklyn

NEIGHBORHOOD	NUMBER_OF_SALES	AREA_CODE
FLUSHING	6683.0	QN22
BEDFORD	4881.0	BK75
BAYSIDE-BAYSIDE HILLS	3859.0	QN46
EAST NEW YORK	3819.0	BK82
RICHMOND HILL	3748.0	QN54
ST. ALBANS	3671.0	QN08
GREAT KILLS	3610.0	QN51
CANARSIE	3294.0	BK50
QUEENS VILLAGE	3244.0	QN34
SOUTH JAMAICA	3227.0	QN01
SOUTH OZONE PARK	2915.0	QN55
BOROUGH PARK	2840.0	BK88
OZONE PARK	2643.0	QN56
BAY RIDGE	2409.0	BK31
HOLLIS	2396.0	QN07
ROSEDALE	2354.0	QN05
WOODHAVEN	2328.0	QN53
MIDDLE VILLAGE	2315.0	QN21

TABLE. 1: Top 18 of house sales number to family layer in 2010

In FIG. 3, red circles and their subscripts show Japanese restaurants' locations and their ratings. In Manhattan, Japanese restaurants which have high ratings are many. Especially, the high rating restaurants concentrate at South of the central park (herein after indicated South Manhattan).

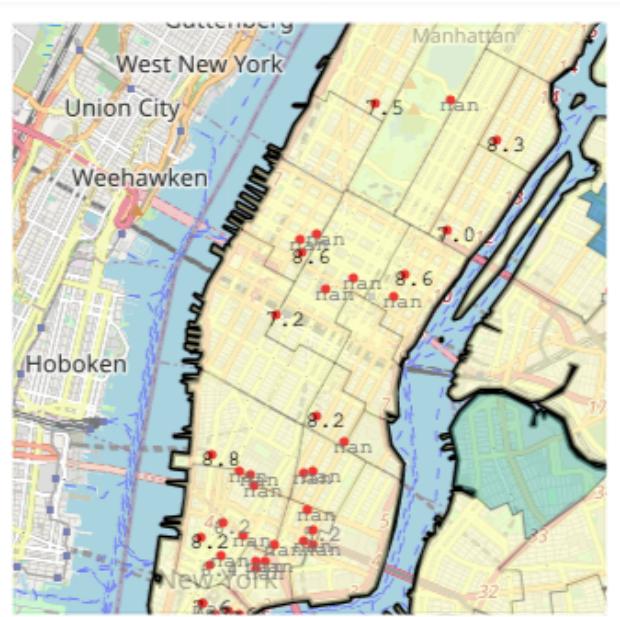


FIG. 3: Japanese restaurants' locations and their ratings in Manhattan

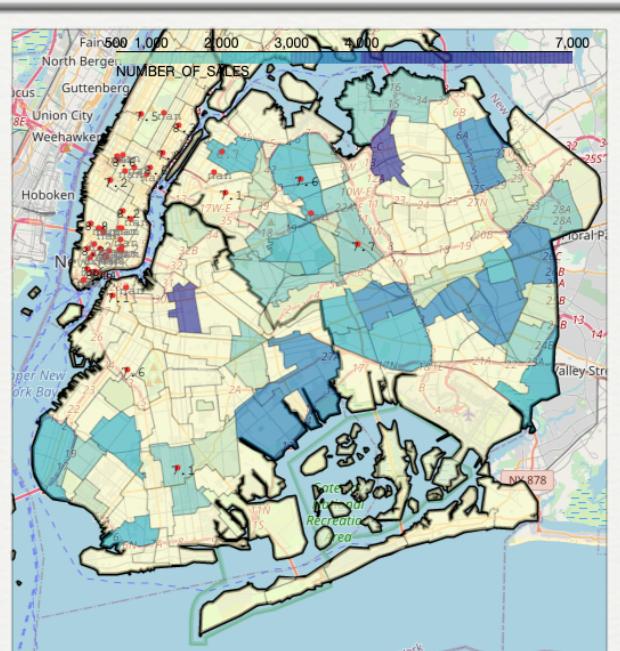


FIG. 4: Japanese restaurants' locations and their ratings in Queens and Brooklyn

Seeing Fig. 4, Contrary to Manhattan, in Queens and Brooklyn, Japanese restaurants which have high ratings are not so much.

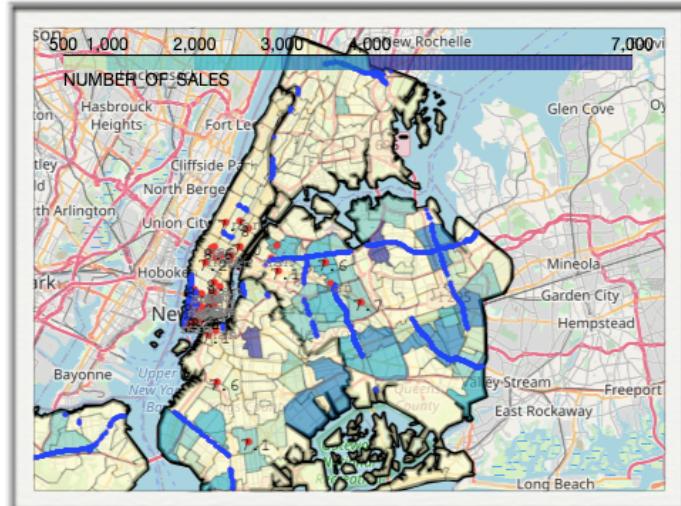


FIG. 5: Roads having high traffic volume during lunch/dinner time

Roadway_Name	Trafficvolume_lunch_dinner_time
12 AVENUE	9191.0
EAST FORDHAM ROAD	7581.0
9 AVENUE	7525.0
WOODHAVEN BOULEVARD	7452.0
6 AVENUE	6806.0
WEST STREET	6783.0
5TH AVENUE	6772.0
COLUMBUS CIRCLE	6046.0
VARICK STREET	6027.0
VAN WYCK BOULEVARD EAST	5873.0
LEXINGTON AVENUE	5801.0
SOUTH CONDUIT AVENUE	5766.0
2 AVENUE	5604.0
COLUMBUS AVENUE	5491.0
2 AVENUE MAIN ROAD	5429.0

TABLE. 2: TOP 15 of roads having high traffic volume during lunch/dinner time

Moreover, in FIG. 5, blue lines show high traffic roads (excluding Express way, bridge and so on) in which total traffic volume at lunch time 11:00-13:00 and dinner time 18:00-20:00 are much. When seeing the Manhattan and Queens/Brooklyn, we can see that the roads in South Manhattan don't directly connect to the roads in Queens and Brooklyn.

Accordingly, we will focus on not Manhattan, Bronx and Staten Island, but Queens and

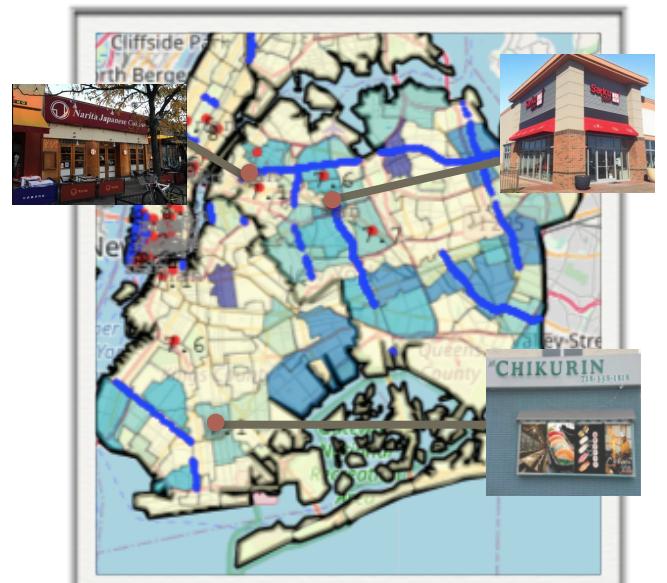


FIG. 6: Japanese Restaurants having been at nice location

Brooklyn.

In FIG. 6, we can see that, in Queens and Brooklyn, some Japanese restaurants have already been launched at nice locations where many family layers live and high traffic roads like Northern boulevard, wood-heaven boulevard go through nearby in Queens and Brooklyn.

In Queens, we can determine, as such locations indicated in the map, locations being nearby:

- (1) NORTHERN BOULEVARD IN FLUSHING;
- (2) INTERSECTION OF NORTHERN BOULEVARD WITH 212TH STREET;
- (3) INTERSECTION OF NORTHERN BOULEVARD WITH 35TH AVENUE; AND
- (4) WOOD-HEAVEN BOULEVARD STATION.



FIG. 7: Candidate locations in Queens

However, in Queens and Brooklyn, there are locations that Japanese Restaurants are not, even where many family layers live and a high traffic road.



FIG. 8: Candidate locations in Queens

In Brooklyn, we can determine, as such locations, a location being nearby;

- (5) INTERSECTION 65TH STREET, MACDONALD AVENUE AND AVENUE P

However, we can see that the location (5) in Brooklyn is inferior to the locations (1)-(4) in Queens above.

Conclusion and future direction

We, TAMAKI ZANMAI SUSHI GROUP, should launch our first restaurant in **QUEENS**. Specifically, locations nearby (1) to (4) can be listed as candidates.

(1) NORTHERN BOULEVARD IN FLUSHING;

- (2) INTERSECTION OF NORTHERN BOULEVARD WITH 212TH STREET;
- (3) INTERSECTION OF NORTHERN BOULEVARD WITH 35TH AVENUE; AND
- (4) WOOD-HEAVEN BOULEVARD STATION

We should conduct a local survey of the candidate locations to estimate the monthly/yearly profit and cost using machine learning, and determine a best location among the locations using the machine learning data above, and if we have made sure that launching our restaurant at the best location is beneficial, we put ahead its lance project.

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