Where to open an Italian restaurant in Tokyo metropolitan area

NING LI

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1 Introduction

1.1 Background

Tokyo metropolitan area is a busting area consisting of 23 districts and dozens of surrounding municipalities. The 23 districts area is the heart of Tokyo with nearly 10 million residents as well as lots of business activities[1].

Many business decide to set up shop in 23 districts area because its large population, multicultural atmosphere as well as its astonishingly well-developed infrastructures which are essential for business development.

1.2 Problem

This project is based on an assumption that a business entity has decided to open an Italian restaurant in Tokyo. However, the stakeholders can't decide which district serves as the optimal location for them.

In order to help with them make the decision, I will utilize Foursquare location data to explore and cluster various venues in each of 23 districts in Tokyo.

The output should be a whole picture from which one can observe the following:

- 1 Districts sorted with most venues.
- ② Types of venues located in those respective districts
- ③ The clustered map output

1.3 Interest

Although the above assumption is to open an Italian restaurant, the analysis performed in this project should generally interest any entrepreneur who wants to establish a business in Tokyo 23 district area since it presents an overall understanding of types of venues located in each district.

2 Data

2.1 Data Sources

The longitude and latitude data used in this analysis were downloaded from Geospatial Information Authority of Japan[2].

In order to present a complete picture number of residents by district was also presented as a histogram. The statistics was published by Tokyo Metropolitan Office.

Venue exploration was carried using Foursquare API.

2.2 Sample Data

For example the longitude and latitude dataset prepared for Foursquare will look like those shown in Table 1.

Table 1 Longitude and latitude dataset processed for Foursquare Analysis

	District Name	Longitude	Latitude
0	Chiyoda	139.75361	35.69389
1	Chuo	139.77222	35.67083
2	Minato	139.75167	35.65806
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Reference

[1] Statistics data retrieved from Statistics of Tokyo website

http://www.toukei.metro.tokyo.jp/juukiy/jy-index.htm

[2] Longitude and latitude data retrieved from Geospatial Information

Authority of Japan

 $\underline{http://www.gsi.go.jp/KOKUJYOHO/CENTER/kendata/tokyo_heso.pdf}$