Finding the optimal location for a Chinese restaurant in Athens

George Konstantakis

May 5, 2020

Contents

Chapter 1 : Introduction / Business Problem

In this project we aim to find an optimal location for a restaurant. Specifically, this report will be targeted to stakeholders interested in opening an **Asian restaurant** in **Athens**, **Greece**. Since there is a plethora of restaurants in Athens, we will search for locations that are not already crowded with restaurants. In addition to that, we are particularly interested in areas with no Asian restaurants in their vicinity. Also, we would prefer locations as close to the city center as possible, assuming that the first two conditions are met. We will harness our data science knowledge to generate the most promising neighborhoods based on these criteria. Advantages of each area will then be clearly expressed so that the best possible final location can be chosen by stakeholders.

Chapter 2 : Data

Based on the definition of our problem, factors that will influence our decision are:

- number of existing restaurants in a neighborhood (any type of restaurant)
- number of and distance to Asian restaurants in a neighborhood if any
- distance of a neighborhood from the city center

Following data sources will be needed to extract/generate the required information:

- centers of candidate areas will be generated algorithmically and approximate addresses of centers of those areas will be obtained using Google Maps API reverse geocoding
- number of restaurants and their type and location in every neighborhood will be obtained using Foursquare API
- coordinate of Athens center will be obtained using Google Maps API geocoding