Capstone project – final report

Where to open a pizzeria in Zürich, Switzerland

Introduction

Paolo wants to open his pizzeria in some borough of Zürich Switzerland. He asked us to help him to find the best place for it.

Business Problem

In order to open Paolo's pizzeria, we will need to leverage some information about the boroughs in Zürich. We must ensure that there will be enough customers for the pizzeria and also that there are not already too many other pizzerie in the same borough.

Data

To help Paolo in his search we will need to use following data:

- The boroughs of Zürich, Switzerland. We will get this information from the following Wikipedia page:
  https://en.wikipedia.org/wiki/Subdivisions_of_Z%C3%BCrich

- The coordinates (latitude, longitude) ot these boroughs and of Zürich.
  We will get this information from Google: https://maps.googleapis.com

- From Foursquare we will need following venues data:
  - the pizzerias venues of the boroughs
  - the offices venues of the boroughs
  - the schools venues of the boroughs

We will then leverage the data in order to determine which borough has the most officies and schools and at the same time the less pizzerie. This would be a good borough for Paolo in order to open his restaurant.

Methodology

For each borough, all office, school and pizzeria venues have been collected from Foursquare.

Then for each borough, the sums of the offices, schools and pizzerie have been computed.

Finally for each of this 3 categories, a weight has been defined according to what Paolo considers the most important.

- Pizzerie have been weighted with -1, since Paolo wants to avoid concurrence.
- Schools have been weighted with 1, since student are good customers.
- Offices have been weighted with 1.5, since employees are even better customers.

Note that the weights can be modified according to the importance of each category.

Finaly a score has been computed for each borough as the weighted sum of the number of venues in each of the 3 categories (school, office, pizzeria).

Results

Based on our approach and the chosen weights, the borough "District 10 - Höngg, Wipkingen" is the borough that maximizes the weighted sum.

This would be a good borough for Paolo in order to open his pizzeria!

Discussion

The following analysis can be improved with following extensions:

1) Consider more categories. For example like "Night life" which is also a good source for customers. But also like "Restaurants", which even if not pizzerie may be some concurrence if too many.
2) In the borough itself, it can also be computed the distance between all the venues in order to find a place with the most number of potential customers.

Conclusion

Thank you very much for reading my report.

See you soon in Paolo's pizzeria.

Buon appetito!