To open a restaurant in Copenhagen (DK)
Market Analysis and Strategy to implement a successful business model

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Introduction

Background

Copenhagen is the capital and most populous city of Denmark. As of July 2018, the city has a population of 777,218 (616,098 in Copenhagen Municipality, 103,914 in Frederiksberg Municipality, 43,005 in Tårnby Municipality, and 14,201 in Dragør Municipality).

It forms the core of the wider Urban Area of Copenhagen (population 1,627,705) and the Copenhagen Metropolitan area (population 2,057,737). Copenhagen is situated on the eastern coast of the island of Zealand; another small portion of the city is located on Amager, and is separated from Malmö (population of 312,012 inhabitants in 2017 out of a municipal total of 338,230), Sweden, by the strait of Øresund. The Øresund Bridge connects he two cities by rail and road, and the whole Øresund area is home to around 4 million people.

Importantly for the purpose of this document, the city boasts a very lively and competitive culinary scene: as of 2014, Copenhagen has 15 Michelin-starred restaurants, the most of any Scandinavian city[1].

Problem and Interest

Our client wants to open a restaurant in the Copenhagen Urban Area. However, he/she does not know the city at all therefore, before investing, he/she would like us to conduct an analysis of the restaurant market: types of competitors, number of competitors and their area distribution are some of the advices he/she is seeking. At the end of the report we are supposed to provide him with a strategy, including alternative strategies of investment.

Data acquisition and cleaning

Data Source

1. In the first place, we got information on all the boroughs of Copenhagen and their relative postalcodes. These data were easy to access on the PostNord website[2]

2. Secondly, we got the latitude and longitude coordinates for each and every borough of interest, which are accessible from Google Maps.

3. With the postalcodes and the coordinates in our hands, we leveraged the Foursquare API database to get all the venues within a given radius (1 km) from the center of every borough.

4. Furthermore, we exploited the Bolig Portal website to get the housing prices for a room in Copenhagen, which was multiplied by a factor of 3 to get a price which is at least in the ballpark of the renting price for a restaurant.

5. Last but no least, we scraped the data for the Choropleth map from the Copenhagen Data website[3].

Data Cleaning

Data downloaded or scraped from both Google Maps and PostNord website were combined in a single table. Data downloaded from the PostNord website were filtered to remove all entries which were not relevant (i.e., not belonging to the Copenhagen Urban Area) and integrated with data from Google Maps (see table 1); all this was done with the purpose of leveraging the Foursquare database.

	Borough	Postalcode	Latitude	Longitude
0	Albertslund	2620	55.680222	12.344944
1	Bagsværd	2880	55.760240	12.449665
2	Ballerup	2750	55.733414	12.357824
3	Brøndby	2605	55.645991	12.415682
4	Brøndby Strand	2660	55.622972	12.420225
5	Brønshøj	2700	55.703435	12.497005
6	Charlottenlund	2920	55.759298	12.575239
7	Dragør	2791	55.589891	12.644038
8	Dyssegård	2870	55.733663	12.527227
9	Frederiksberg	2000	55.678974	12.515761
10	Frederiksberg C	1805, 1810, 1927, 1867, 1857, 1908, 1870, 1917...	55.679026	12.544811
11	Gentofte	2820	55.751258	12.543335
12	Glostrup	2600	55.676961	12.402743
13	Greve	2670	55.598277	12.243247
14	Hedehusene	2640	55.654361	12.199693
15	Hellerup	2900	55.735471	12.567897

Table 1: Copenhagen boroughs vs postalcodes and coordinates from Google Maps

Leveraging the Foursquare API data provided a plethora of venues entries, among which over one hundred restaurant venues entries (see for example table 2 below).

	Borough	Borough Latitude	Borough Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Albertslund	55.680222	12.344944	Badesøen	55.675682	12.334593	Water Park
1	Albertslund	55.680222	12.344944	Galgebakken Torv	55.679553	12.347632	Plaza
2	Albertslund	55.680222	12.344944	Fakta	55.675374	12.354690	Grocery Store
3	Albertslund	55.680222	12.344944	Albertslund Hallerne	55.676495	12.333289	Volleyball Court
4	Bagsværd	55.760240	12.449665	Bibliografen	55.760622	12.456612	Multiplex
5	Bagsværd	55.760240	12.449665	Irma Bagsværd Torv	55.760413	12.454644	Grocery Store
6	Bagsværd	55.760240	12.449665	Aldershvile Planteskole	55.765009	12.457966	Flower Shop
7	Bagsværd	55.760240	12.449665	Meny	55.760992	12.454781	Supermarket
8	Bagsværd	55.760240	12.449665	Netto	55.761198	12.450222	Grocery Store
9	Bagsværd	55.760240	12.449665	GuldBageren	55.761049	12.452373	Bakery
10	Bagsværd	55.760240	12.449665	Fakta	55.760137	12.451824	Convenience Store
11	Bagsværd	55.760240	12.449665	Bagsværd Kirke	55.761645	12.444028	Church
12	Bagsværd	55.760240	12.449665	Bagsværd Sø	55.764162	12.448976	Lake
13	Bagsværd	55.760240	12.449665	Bagsværd Stadion	55.759773	12.459336	Track Stadium
14	Bagsværd	55.760240	12.449665	Søndergaard Park Pizza & Grill	55.757261	12.460361	Pizza Place
15	Bagsværd	55.760240	12.449665	Novo Nordisk 9a	55.754581	12.456358	Cafeteria

Table 2: Copenhagen boroughs vs venues, venues coordinates and venues category from Foursquare

All these data will be used to get as much information as we can to map out the most common venues per borough, as well as the restaurant types and location.

Finally, we also plan on creating a Chlopeth map with the rent prices: To do so, we scaled our area of interest down to Copenhagen City Proper Area, as the relevant geojson files could only be retrieved for this area. However, this was not a big problem, as KBH City Proper is the area with the highest contration of restaurants in the Copenhagen Urban Area. This also entailed some minor borough name change, as the postalcodes area subdivision does not always correspond to the Copenhagen area subdivision made by the Copenhagen Commune.

References:

[1] Wikipedia - Copenhagen

[2] https://www.postnord.dk/kundeservice/find-postnummer/postnummerkort

[3] https://data.kk.dk/dataset/bydele/resource/35c4597f-9dfb-4d60-929d-7e6e4bc9486b