

WHERE TO OPEN A NEW RENTAL CAR BUSINESS IN VIENNA

MY CAPSTONE PROJECT

1. INTRODUCTION

a. BACKGROUND

Vienna ranked the best city in the world to live. Not only because of that, but also because of its economical importance, there are millions of tourists/businessmen every year, who are spending time there.

The distances between Vienna and other European metropolises are not so large, that people would take a plane, but the public (ground)-transportation is not so comfortable. For those, it is a good solution to rent a vehicle to be mobile.

b. PROBLEM

The rental business is not a new founding in this city, there are a lot of companies, who are offering this service. As a newbie in the business in Vienna it would be important to find the gap, where a growing business could be started.

c. INTEREST

The stakeholders should have a picture of the current situation, to see which area is the best option for opening a new business.

2. DATA ACQUISITION AND CLEANING

a. DATA SOURCES

The main data is from the website of Vienna with public information about the guest arrivals in 2019 for each district in the city.

(<https://www.wien.gv.at/statistik/wirtschaft/tabellen/ankuenfte-bezirk-zr.html>)

The second source of the data is the GPS coordinate of each district, which was saved in a CSV file, the source was from a collection of Wikipedia district sites.

The third source is Foursquare, where the list of rental car offices will be listed.

b. DATA CLEANING

The Guest arrival data is converted into a pandas data frame.

Since I am working only with the year 2019, I drop the columns, except the names of the districts and the data of the year 2019.

The German “Bezirk” is changed to “District” for the easier handling.

The numbers from the cells of District are removed.

The data in the column 2019 is changed from object to integers.

The index is reset.

The german ä,ö,ß letters are changed to an international form.

The results are sorted in descending order.

The coordinates from the CSV file are converted into pandas data frame.

The german “Bezirk” is changed to “District” for the easier handling.

A merged data frame has been created with the columns District, 2019, Latitude, Longitude

The data is sorted in descending order and the index is reset.

Only the top 5 district is kept.

With nominatim the coordinates for Vienna are displayed.

The information is collected from Foursquare.

The company Car2Go was dropped from the results as it is a different type of rental – car sharing.

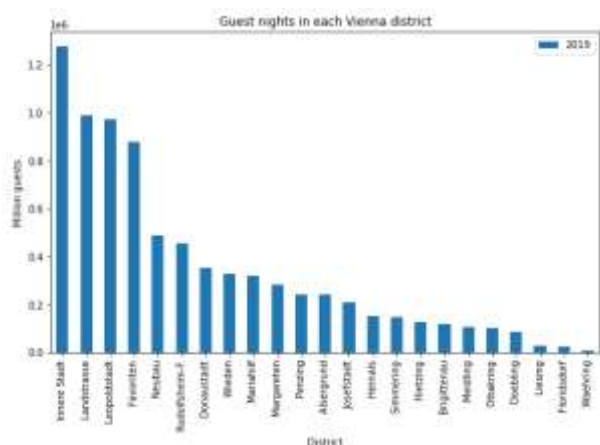
3. DATA ANALYSIS

The guest arrivals are visualized, there it is visible, that in the following districts were the highest arrivals registered:

- Innere Stadt,
- Leopoldstadt,
- Landstrasse,
- Favoriten,
- Neubau

The analysis is done only for these 5 districts.

From foursquare the radius of 2000meters was selected, because that is still a walking distance and giving a good coverage of the area.



4. RESULTS

As result I received 27 rental offices:

| | |
|--------------|----|
| Landstrasse | 13 |
| Innere Stadt | 5 |
| Neubau | 4 |
| Favoriten | 1 |



5. CONCLUSIONS

From the 5 tested districts Leopoldstadt has no rental offices at all. My recommendation for the stakeholders: open a rental office in that district.