Restaurant location analysis in Espoo (FI)

ANTON ARO

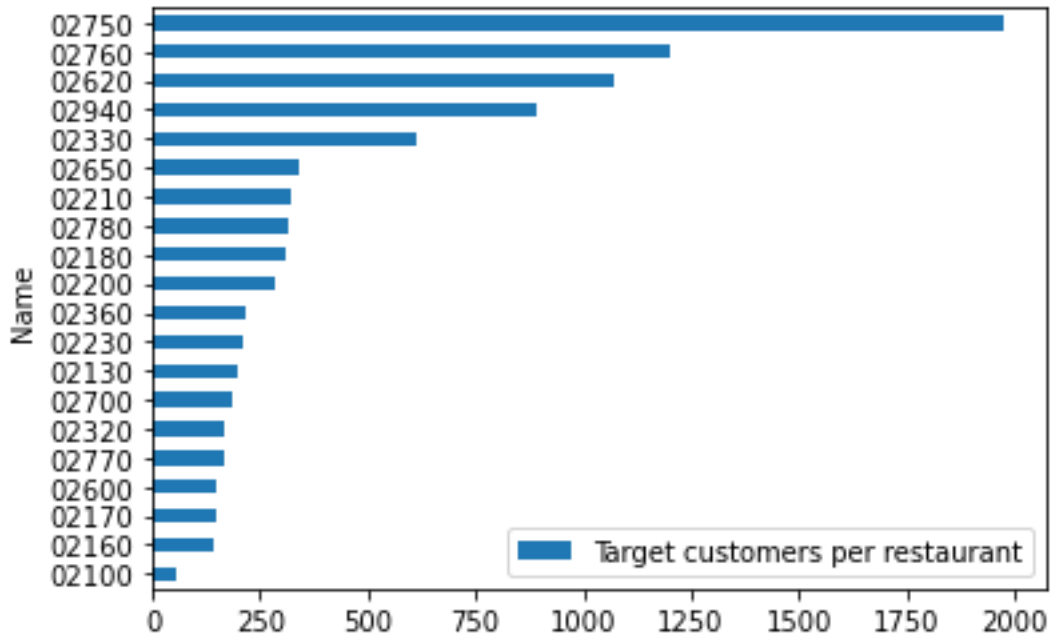
Setting up a dining business

- Location of restaurant is one of the keys to succeed in food industry
- Thus analysing locations from demographic perspective is highly prioritized prior to choosing the restaurant location
- This project aims to recommend variety of potential restaurant locations to open a new restaurant in Espoo, Finland

Data acquistion

- Geographic information was acquired from open data portal: avoindata.fi
- Espoo demographic information was acquired from Statistics Finland portal as .csv-file: StatFI
- Restaurant information was retrieved through Foursquare API
- The data set contained all postcode areas of Espoo and 100+ demographic variables
- Final data has17 features

Restaurant offering per inhabitant varies



- The targeted areas have notably large difference in terms of restaurants per inhabitants
- Most restaurant dense areas have only 57 customers per restaunrant, while areas with higher opportunity provide up to nearly 2000 customer per restaurant

Benchmark area

	20-24 years, 2019 (HE)	25-29 years, 2019 (HE)	Matriculation examination, 2019 (KO)	One-person households, 2019 (TE)	Young single persons, 2019 (TE)	Young couples without children, 2019 (TE)	Adult households, 2019 (TE)	Households living in rented dwellings, 2019 (TE)	Dwellings in blocks of flats, 2019 (RA)	Workplaces, 2018 (TP)	Services, 2018 (TP)	I Accommodation and food service activities, 2018 (TP)	L Real estate activities, 2018 (TP)	Q Human health and social work activities, 2018 (TP)	R Arts, entertainment and recreation, 2018 (TP)	S Other service activities, 2018 (TP)	Target Population Size	Restaurants
mean	906.6	1275.6	1153.4	3162.8	971.2	487.0	3715.8	3760.2	6024.4	6743.6	5947.6	306.6	90.8	890.4	217.4	209.8	4722.6	31.2

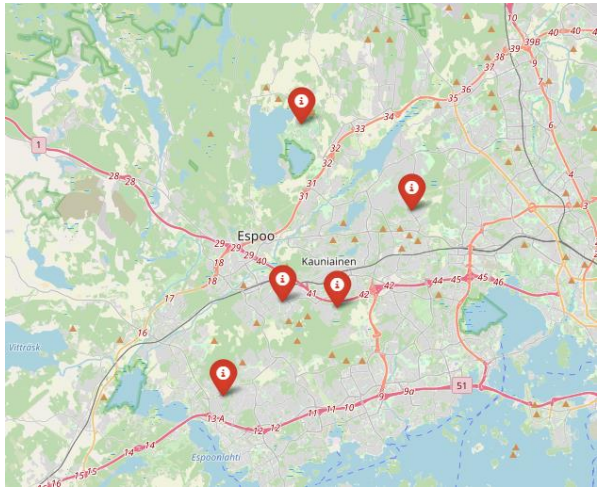
- Benchmark area was chosen through taking the most dense restaurant offering areas
- Correlation analysis identified the most related demographic variable, which were then used to analyse area similarity and customer potential to to define the area recommendation for further analysis

Top areas share important demographic characteristics

	Name	Restaurants	Similarity	Similarity / Restaurants ratio
0	02100	31	0.947608	0.030568
1	02130	8	0.932129	0.116516
2	02160	4	0.958738	0.239684
3	02170	9	0.934010	0.103779
4	02180	5	0.887716	0.177543
5	02200	13	0.960192	0.073861
6	02210	11	0.912099	0.082918
7	02230	37	0.939744	0.025398
8	02320	27	0.868545	0.032168
9	02330	5	0.953928	0.190786
10	02360	11	0.878388	0.079853
11	02600	39	0.954608	0.024477
12	02620	2	0.868938	0.434469
13	02650	13	0.946819	0.072832
14	02700	11	0.983516	0.089411
15	02700	11	0.983516	0.089411
16	02750	1	0.885091	0.885091
17	02760	4	0.849241	0.212310
18	02770	22	0.986911	0.044860
19	02780	11	0.952247	0.086568
20	02940	3	0.896727	0.298909

- Eventhough the targeted areas are relatively similar in their demographics characteristics the number of restaurant varies quite extensively.
- The recommended areas are based on the number of target population, relative similarity to top restaurant areas and number of restaurants in business in the area

Recommended areas for further examination



	Name	Target customers per restaurant
18	02750	1975.000000
19	02760	1200.250000
12	02620	1073.000000
22	02940	890.666667
9	02330	615.600000

- Recommended areas for further examination were in different locations in Espoo sharing characteristics with the benchmark area
- Further analysis could also include traffic analysis and tourist attractions