Tallinn and Helsinky. How similar or dissimilar they are?

Introduction

Globally, more people live in urban areas than in rural areas, with 55 per cent of the world's population residing in urban areas in 2018[1]. Europe is one of most urbanized regions - around 72 % of the population is already living in cities and towns, also with the expectation to increase. Compared to the global situation, Europe is characterized by a much higher number of medium- and small-sized[2]. In this context, I decided to compare two European capitals – Tallinn and Helsinki – to find similar or dissimilar neighborhoods, based on social places density.

Tallinn is the capital of Estonia with total population of 434562 people occupies an area of 159 square kilometers and has 84 neighborhoods in total[3]. Helsinki is the capital of Finland and it's much bigger - city's urban area has a population of 1,268,296 and occupies more than 672 square kilometers[4]. Helsinki consists of 60 neighbourhoods[5].

In post-industrial era city development is defined by people's needs and wishes, so it produces similar tendencies in urbanization. To find similar neighborhoods I use Foursquare location data[6] to determine most popular places and then perform clusterization. I create a maps where each neighborhood clustered according to venue density.

The work is intended as 'food for thought' and information source for policy- and decision-makers at municipal levels, and for researchers and interested citizens alike.

Data

To accomplish my work, I'll use several data sources with statistical and geo data:

1. Tallinn Base Map: Tallinn's subdistrict boundaries
   (http://www.tallinn.ee/est/g6497s92804)

2. Tallinn population stats (https://www.tallinn.ee/Yearbooks-and-Statistics)

3. Common information about city of Tallinn from Wikipedia
   (https://en.wikipedia.org/wiki/Tallinn)

4. District Map of the City of Helsinki (https://hri.fi/data/en_GB/dataset/helsingin-kaupunginosat). The maintainer of the dataset is Helsingin kaupunkiympäristön toimiala / Kaupunkimittauspalvelut. The dataset has been downloaded from Helsinki Region Infoshare service on 22.11.2019 under the license Creative Commons Attribution 4.0

5. Statistical Yearbook of Helsinki (https://hri.fi/data/en_GB/dataset/helsingin-tilastollinen-vuosikirja). The maintainer of the dataset is Helsingin kaupunginkanslia / Kaupunkitutkimus ja -tilastot. The dataset has been downloaded from Helsinki Region Infoshare service on 02.12.2019 under the license license Creative Commons Attribution 4.0

6. Common information about city of Helsinki from Wikipedia
   (https://en.wikipedia.org/wiki/Helsinki)

7. Administrative subdivisions of Helsinki – Wikipedia
(https://en.wikipedia.org/wiki/Subdivisions_of_Helsinki)

8. Foursquare API (https://foursquare.com) to get venue locations

9. Google Maps (https://maps.google.com) to correct some neighborhoods coordinates

References

1. World Urbanization Prospects 2018: Highlights
(https://population.un.org/wup/Publications/Files/WUP2018-Highlights.pdf)
2. Urban Europe - statistics on cities, towns and suburbs - 2016 edition
(https://ec.europa.eu/eurostat/documents/3217494/7596823/KS-01-16-691-EN-N.pdf)
3. Tallinn – Wikipedia (https://en.wikipedia.org/wiki/Tallinn)
4. Helsinki – Wikipedia (https://en.wikipedia.org/wiki/Helsinki)
5. Subdivisions of Helsinki – Wikipedia
(https://en.wikipedia.org/wiki/Subdivisions_of_Helsinki)
6. Foursquare (https://ru.foursquare.com)