

COMPARATIVE ANALYSIS OF TWO EUROPEAN CAPITALS: PARIS VS ROME

Alessandro Fiumara

1.Context

Comparison of two European capitals - Paris vs Rome

Similitudes:

Capitals

Close to a River

Historical and Tourist cities



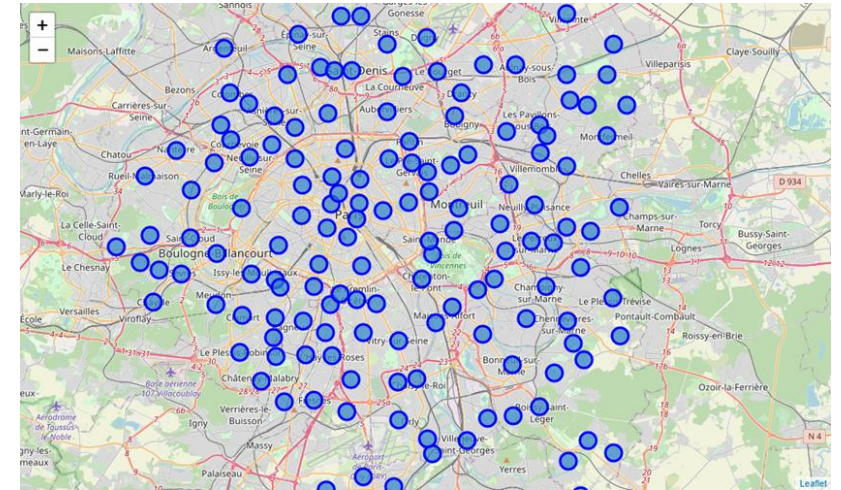
Is the territory distribution similar in these two cities?

2. Data

Paris

Composed by

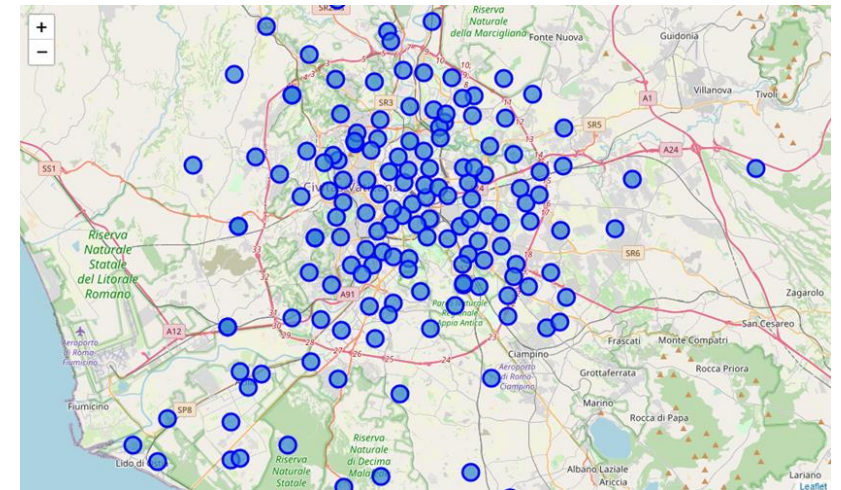
- downtown (borough 75) divided in 20 neighborhoods (arrondissements)
- 3 suburb boroughs (92, 93 and 94)
- 7 suburb towns of boroughs 91 and 95
- Downtown data retrieved from “opendata.paris”
- Suburb data retrieved from the SQL.sh database of the town of France (geographical coordinates retrieved from Wikipedia).



Rome

Composed by

- 15 Boroughs (Municipi)
- 155 Neighborhoods (Zone urbanistiche)
- 7 suburb towns of boroughs 91 and 95
- Data retrieved from Wikipedia



Venues

data for each neighborhood retrieved from FourSquare

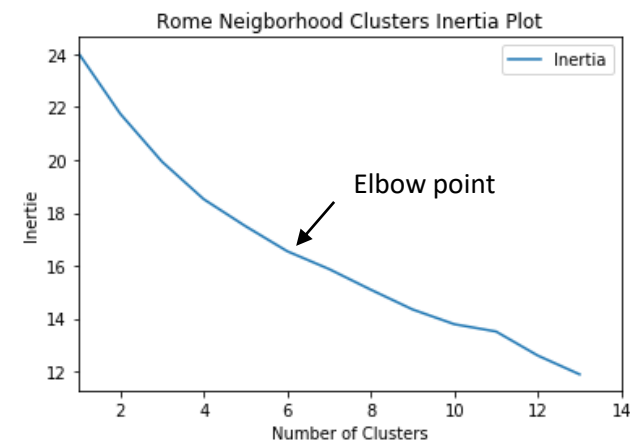
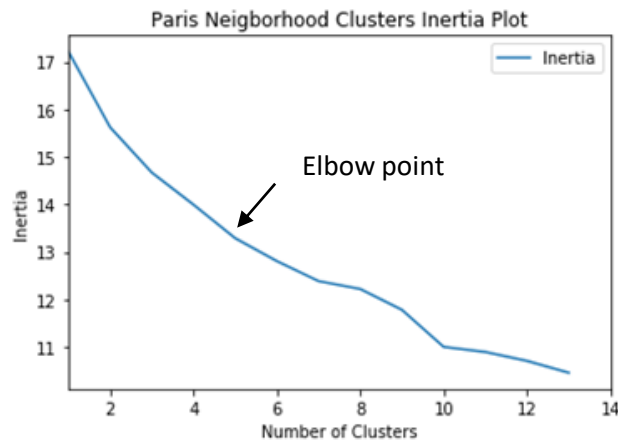
3. Methodology

Use of the K-mean cluster tool to cluster the territory of the two cities

- Model fitted on the categories of the venues of each neighborhood
- Categories grouped in macro-categories

(Asian Restaurant, European Restaurant, French Restaurant, Exotic Restaurant, Other Food Place, Fast Food Restaurant, Sport place, School/Education, Shop/Store, Discount Store, Lux Store, Grocery, Hotel, Low cost accommodation, Touristic, Airport, Bar, Coffee Shop, Market, Games, Entertainment, Opera/Theater, Offices, IT, Transports, Park, Services, Business, Medical, Building, Auto/Moto, Farm, Factory)

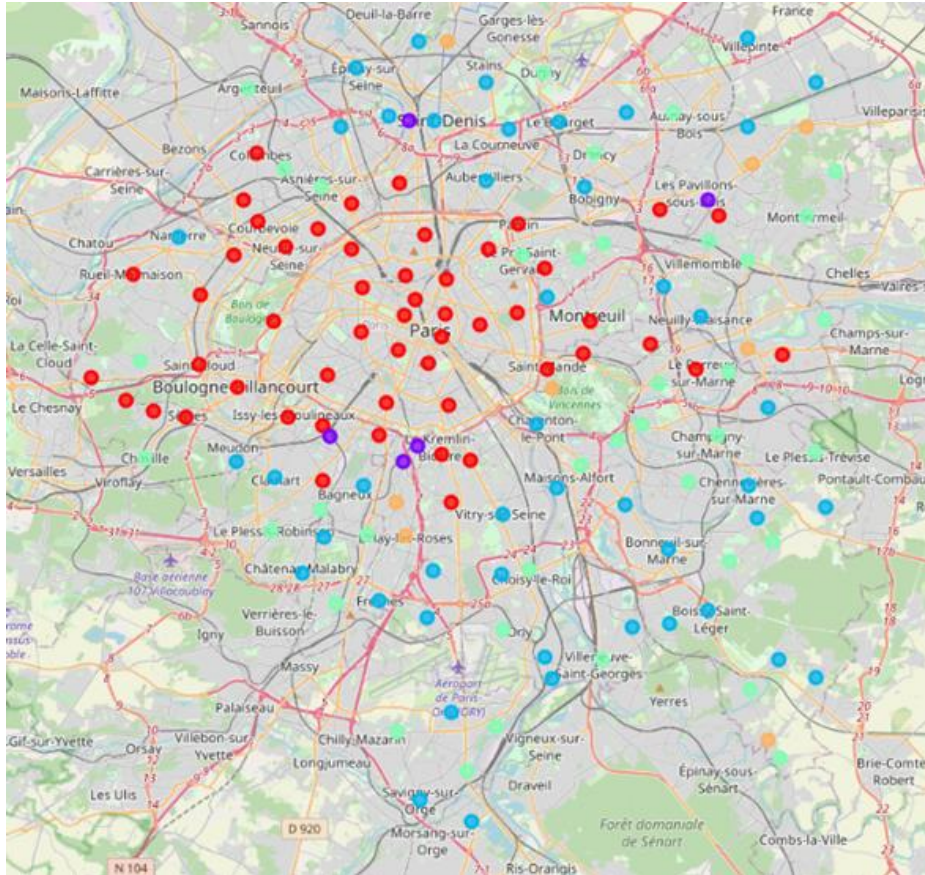
Preliminary analysis of the cluster inertia



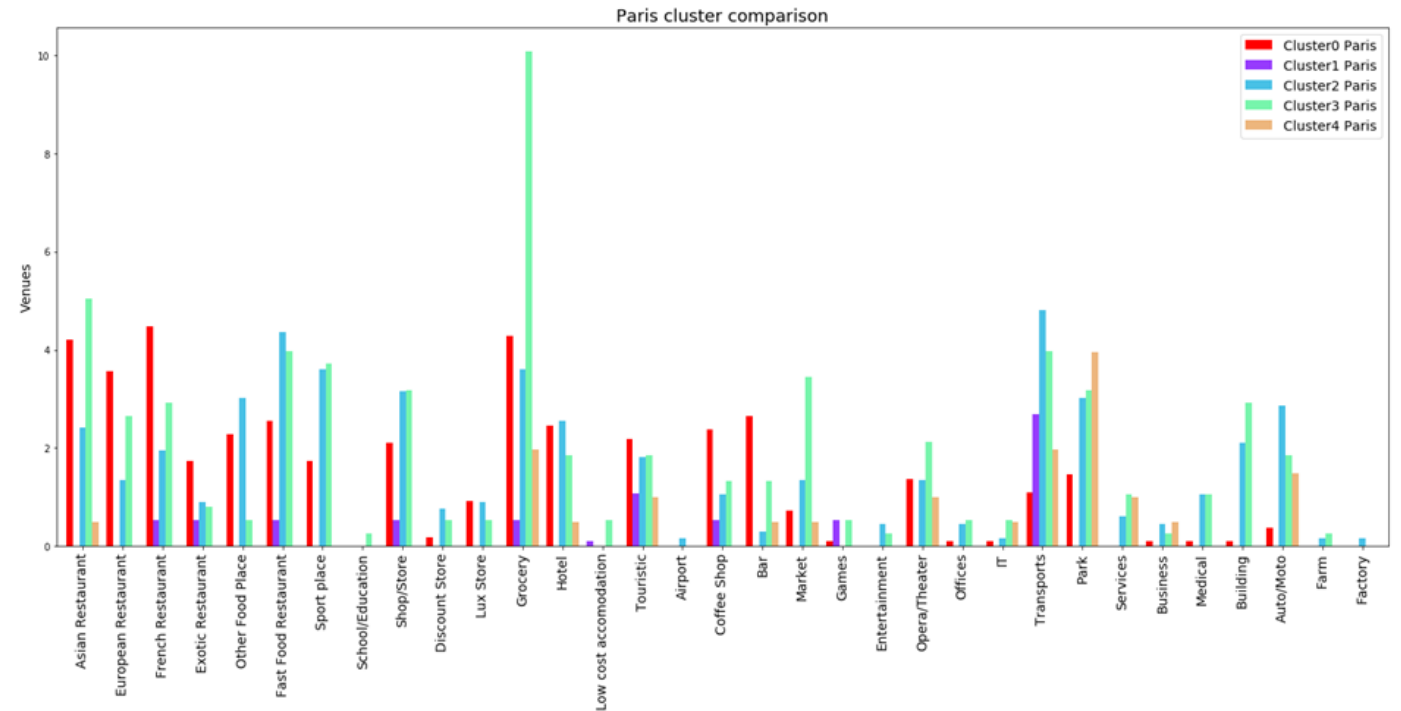
- K=5 for Paris
- K=6 for Rome

4. Results

PARIS



- Cluster0
- Cluster3
- Cluster2
- Cluster1
- Cluster4



Cluster0: residential touristic cluster

Cluster3: mixed touristic/residential/affair cluster

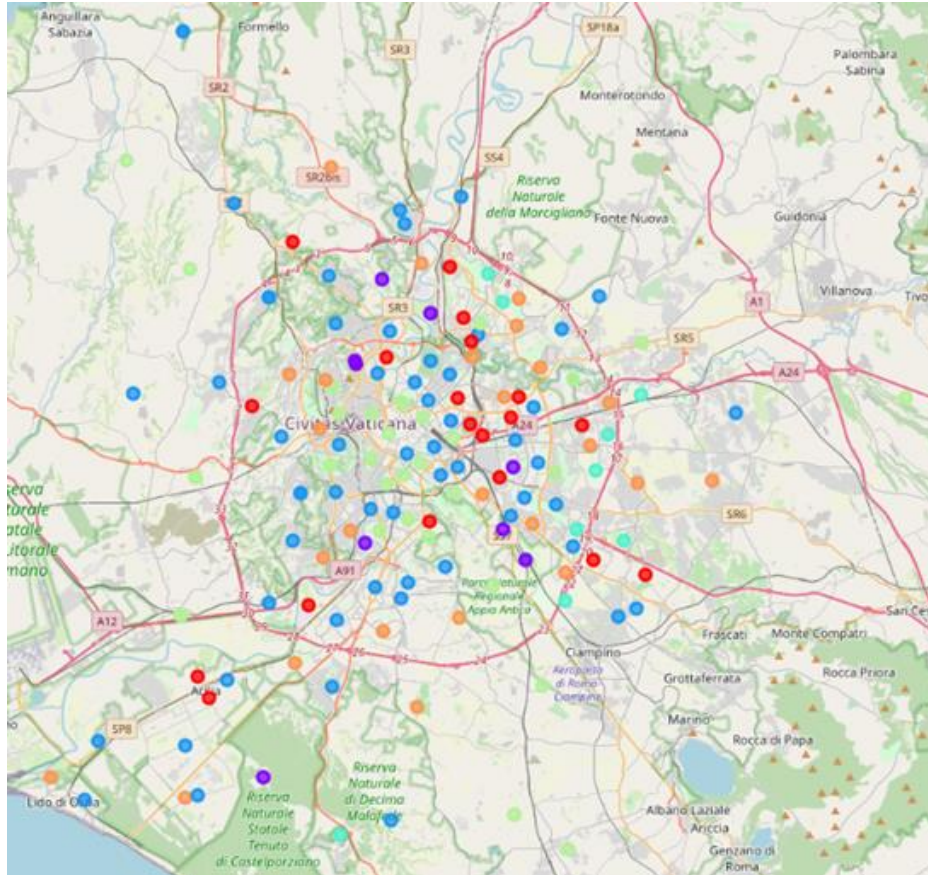
Cluster2: mixed working-class residential/commercial cluster

Cluster1: suburb touristic and game place

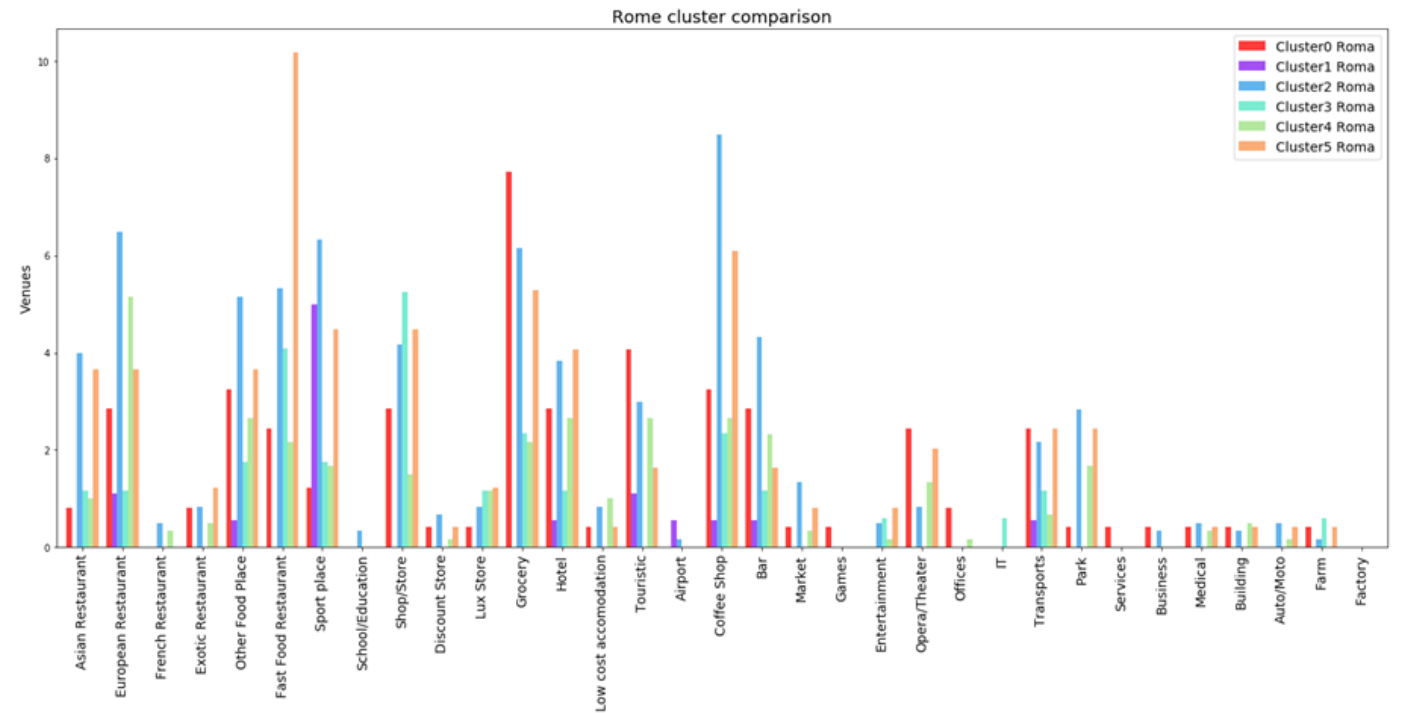
Cluster4: business and service cluster

4. Results

ROME



- Cluster4
- Cluster2
- Cluster0
- Cluster5
- Cluster1
- Cluster3



Cluster4: residential touristic cluster

Cluster2: mixed touristic/residential/other services cluster

Cluster0: mixed touristic/residential/office cluster

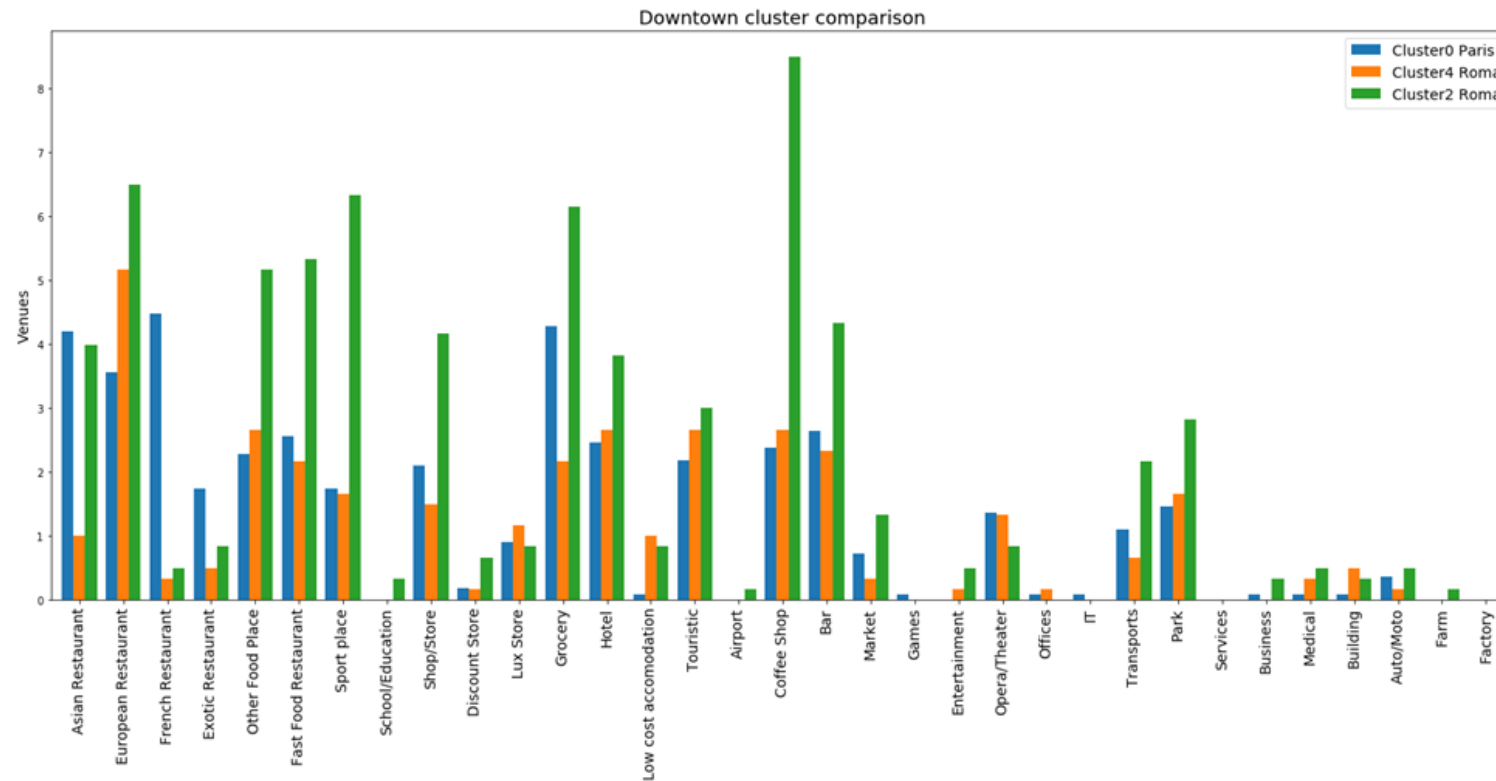
Cluster5: suburb commercial residential zone

Cluster1: isolated cluster with sport places, bar and restaurants

Cluster3: commercial zone

5. Discussion

Downtown comparison

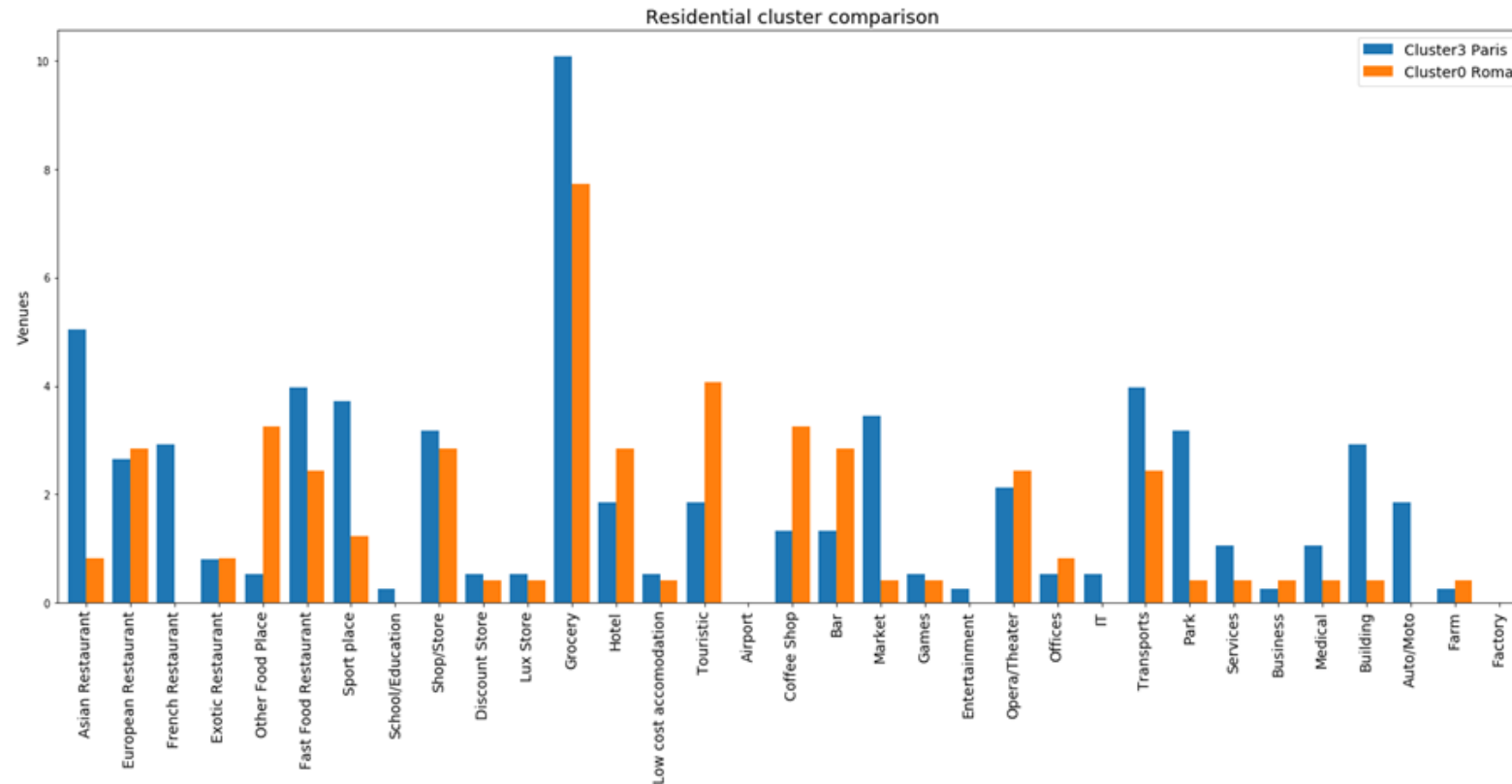


Similar characteristics:

- High touristic zone
- Elevated restaurant and stores concentration
- Cluster2 of Rome more for the working-class

5. Discussion

Residential comparison

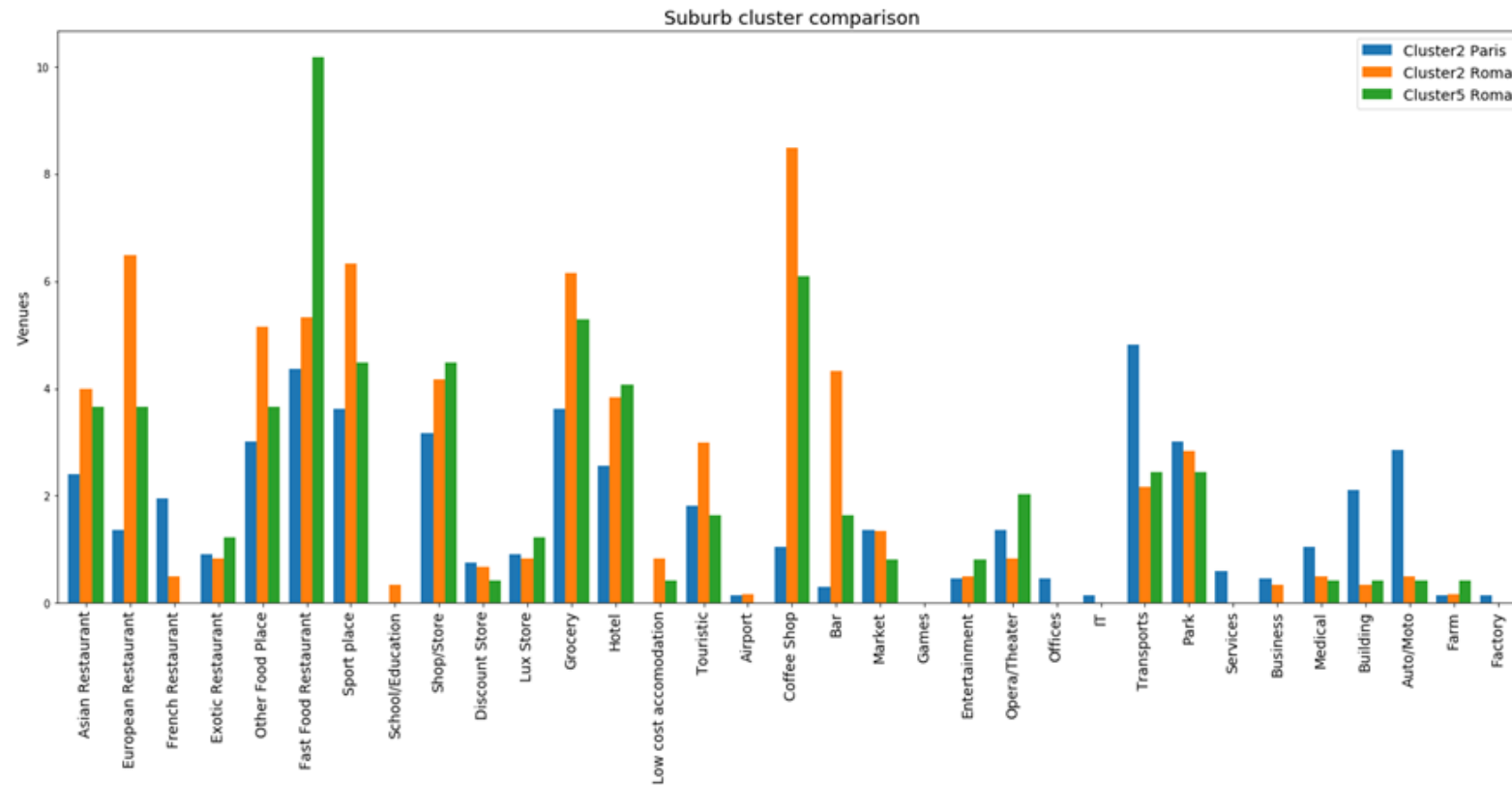


Similar characteristics:

- High touristic zone
- Elevated restaurant and stores concentration
- Higher building activities in Paris

5. Discussion

Suburb comparison

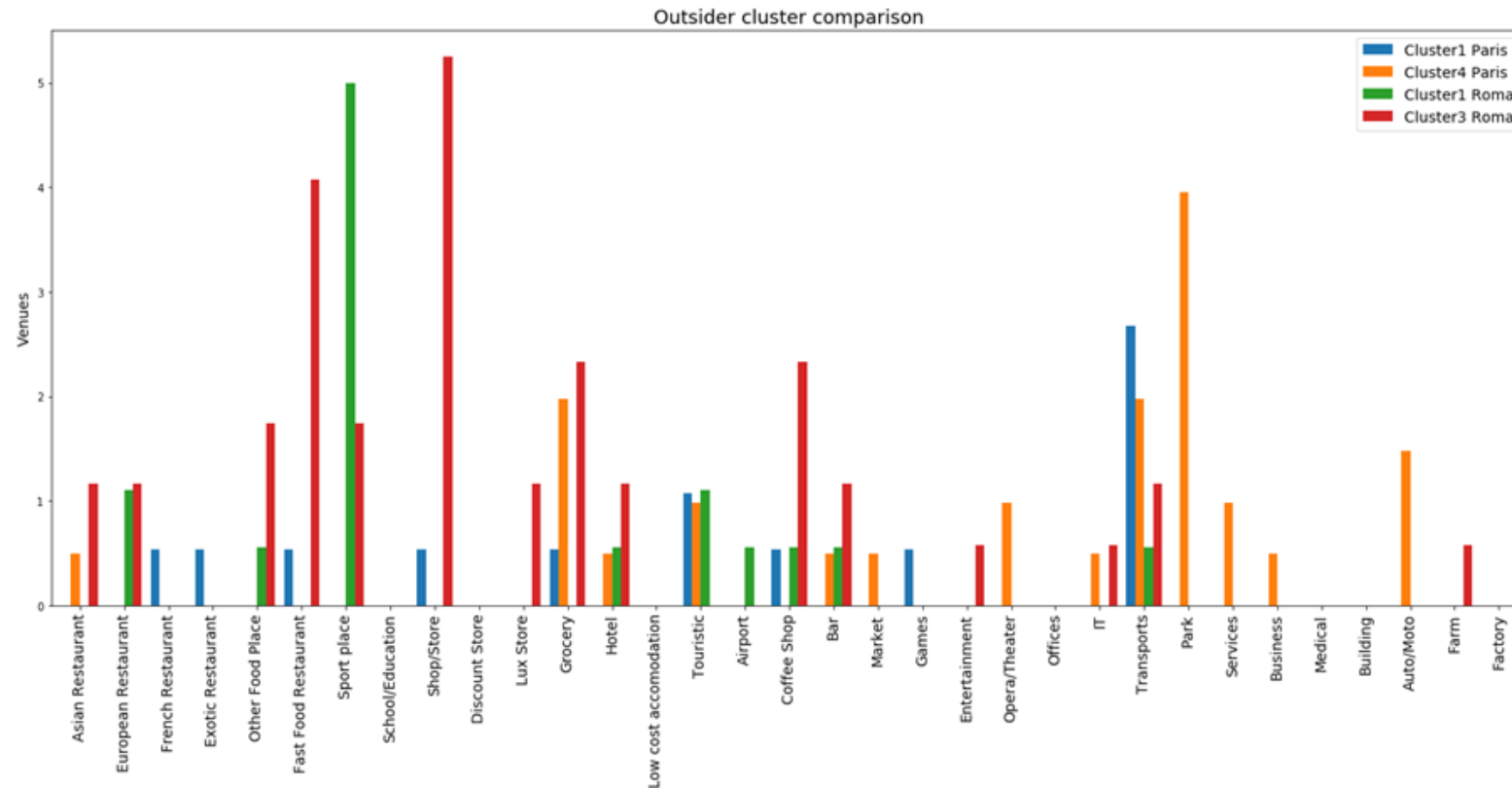


Similar characteristics:

- High touristic zone
- Elevated restaurant and stores concentration
- Larger IT, offices, Building and Auto/Moto activities

5. Discussion

Far Suburb comparison



Different characteristics:

- One commercial non-touristic zone in Rome and an isolated cluster for sport activities
- One commercial and games zone in Paris and one commercial/industrial zone in Paris

6. Conclusions

- Similar territory distribution of the two town in the downtown and close suburb
 - Touristic, residential and commercial venues
 - In the close suburb of Paris the clusters are mixed with industrial services
- Different territory distribution in the far suburb
 - Isolated commercial zones and sport zones in Rome without other activities
 - One commercial zone and one business, service and building activities zone

These difference in the suburb is probably due to the larger extension of the Rome territory (with lower density of population) leading to isolated zones. Furthermore in Rome there is a lack of actual industrial, building and auto/moto activities.