

Capstone Project – The Battle of the Neighborhoods

Analysis and clustering of neighborhoods in Delhi for opening a Chinese
restaurant

Rohan Karthikeyan

Business Problem

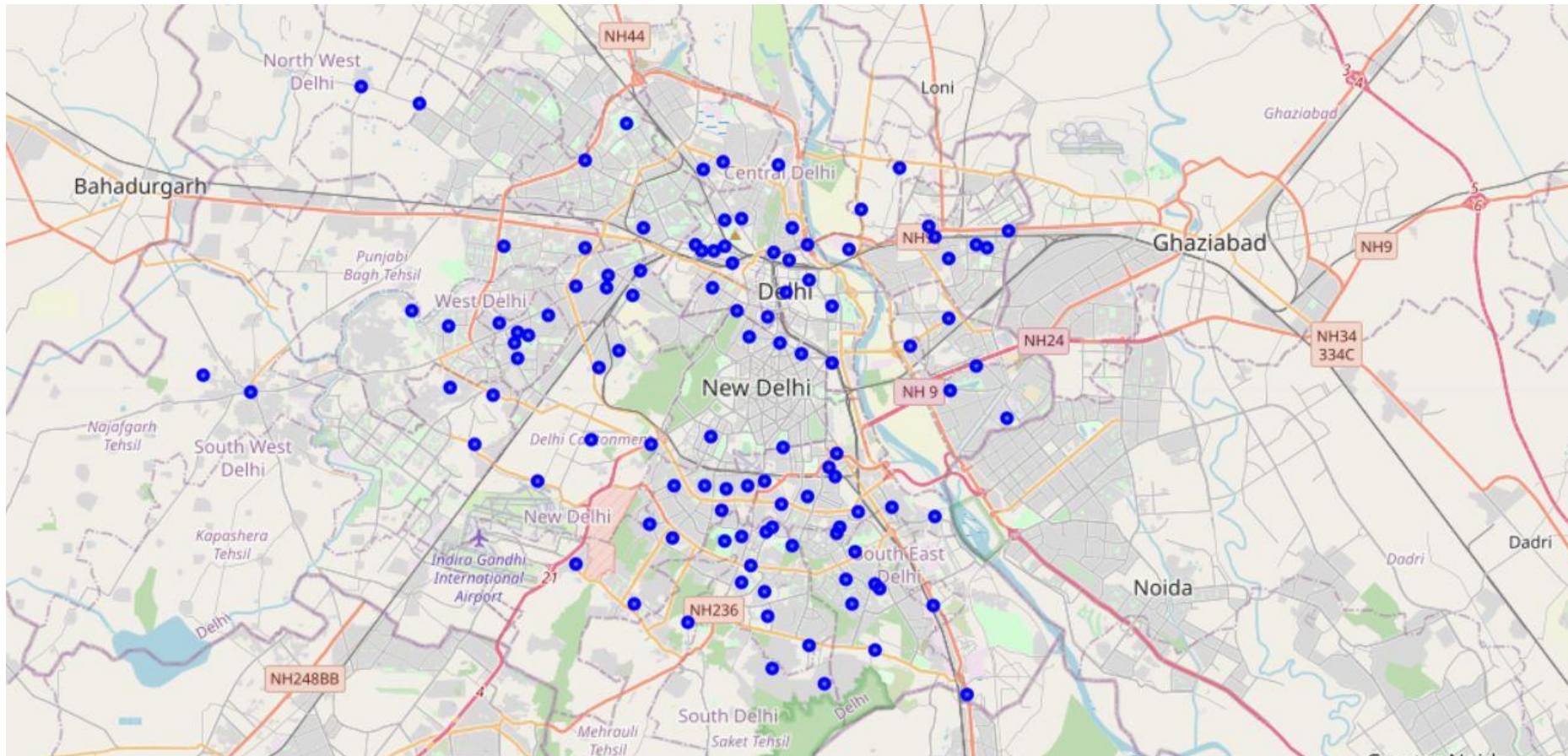
- Identify the best location(s) for opening a Chinese restaurant in Delhi, India.
- Target Audience: Delhiites who in general like Chinese food; Chinese expatriates residing in Delhi

Data Sources

- GeoPy Nominatim is used to get the coordinates of the neighborhoods of Delhi
- Venues with maximum footfall is obtained using Foursquare API Get Venue Explore endpoint call.
- List of all neighbourhoods of Delhi is obtained by scraping the Wikipedia page: [Neighborhoods of Delhi](#)

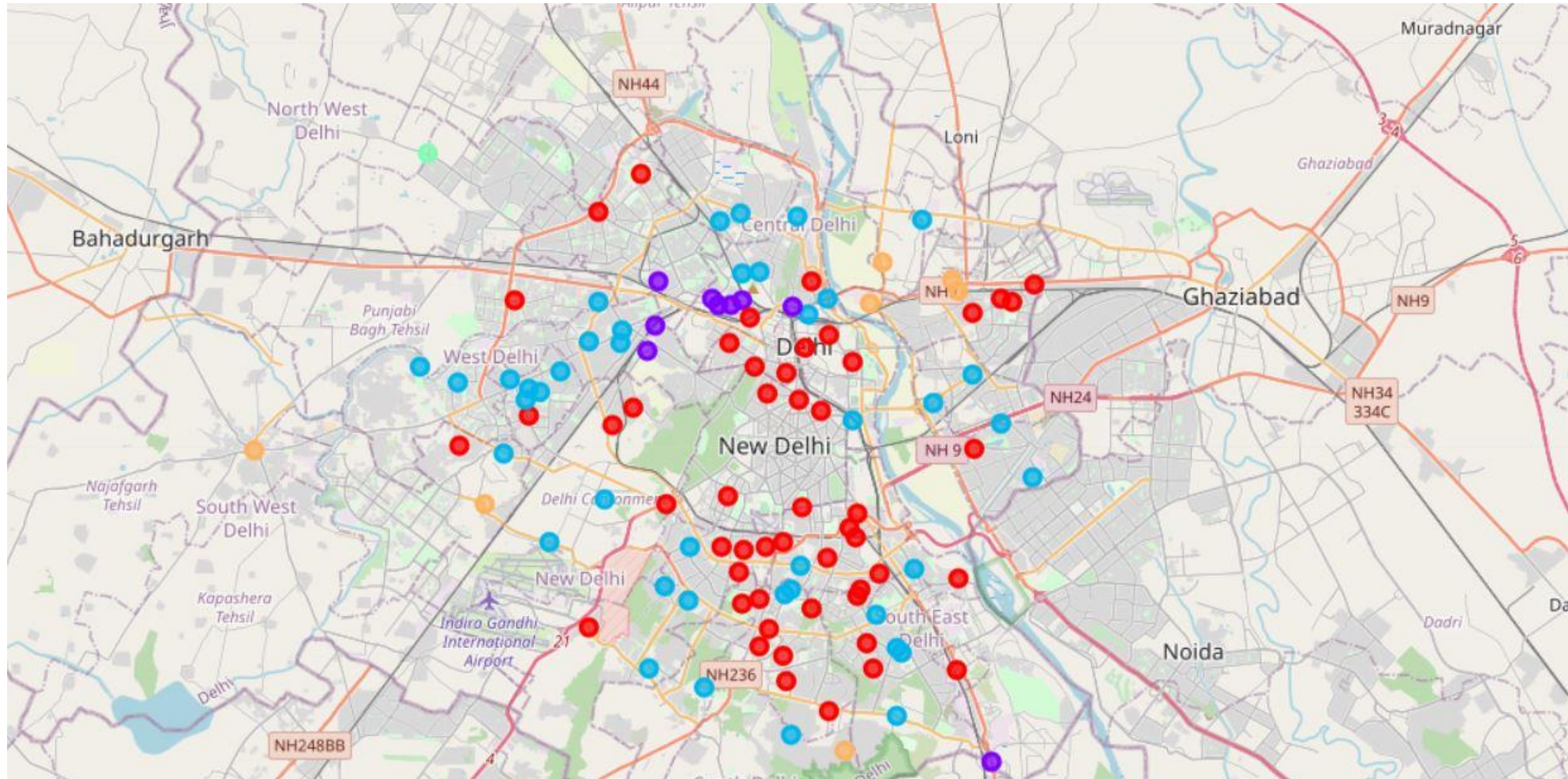
Exploratory Data Analysis

Plotting neighborhoods of Delhi on a map



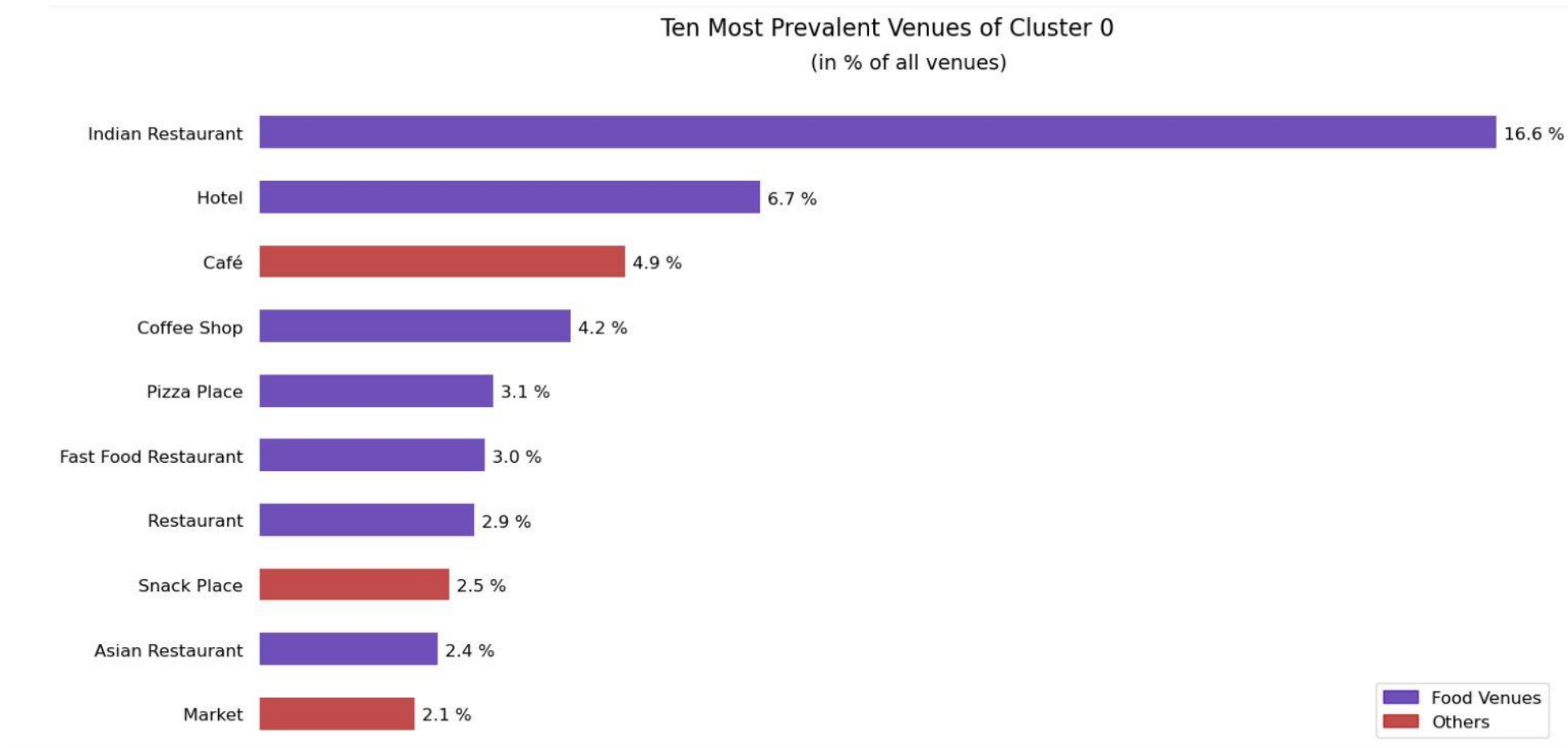
K-means clustering

K-means clusters

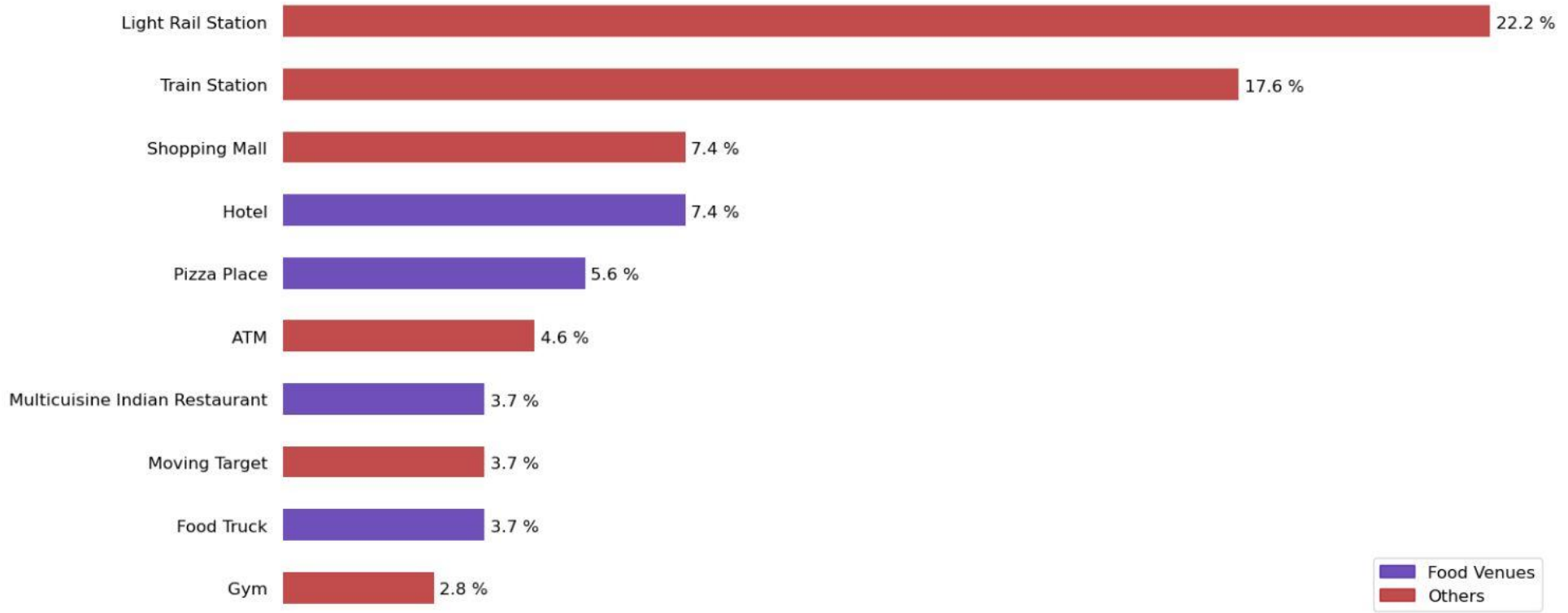


Results

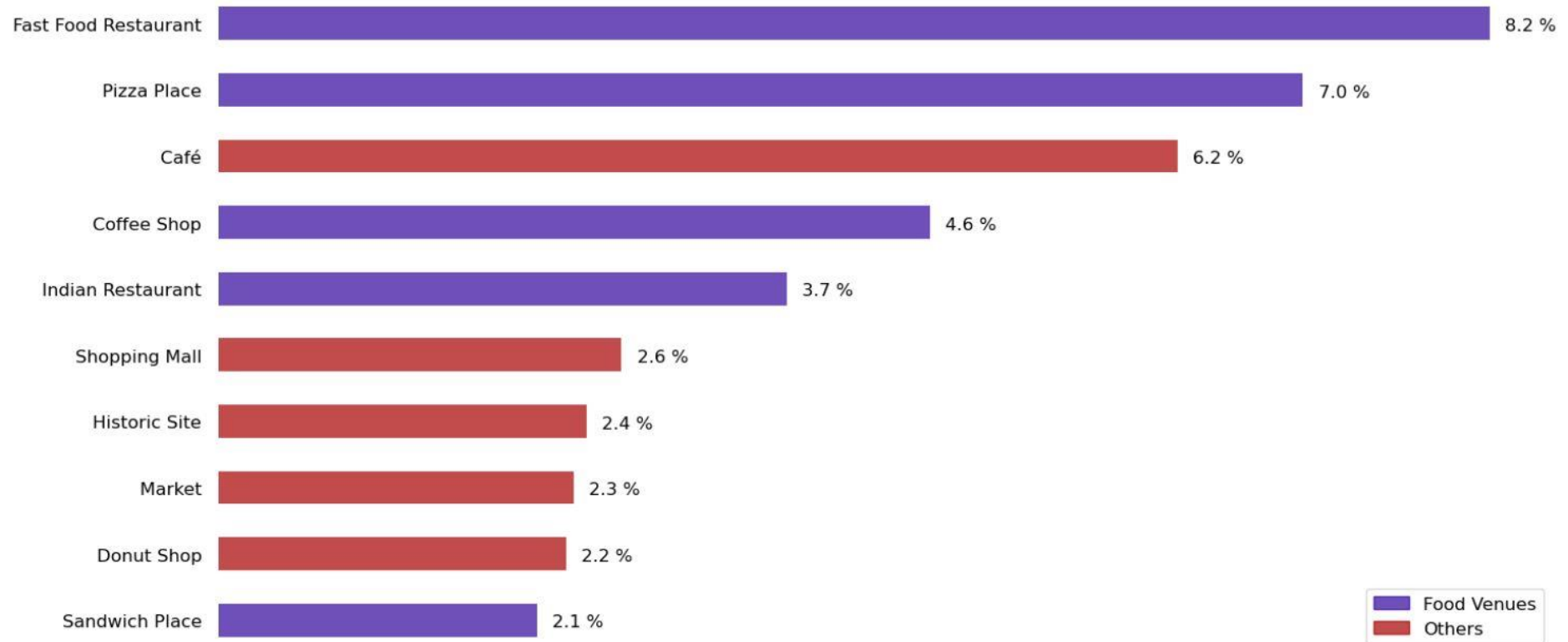
- The bar charts of the top 10 most prevalent venues in each cluster are shown:



Ten Most Prevalent Venues of Cluster 1
(in % of all venues)



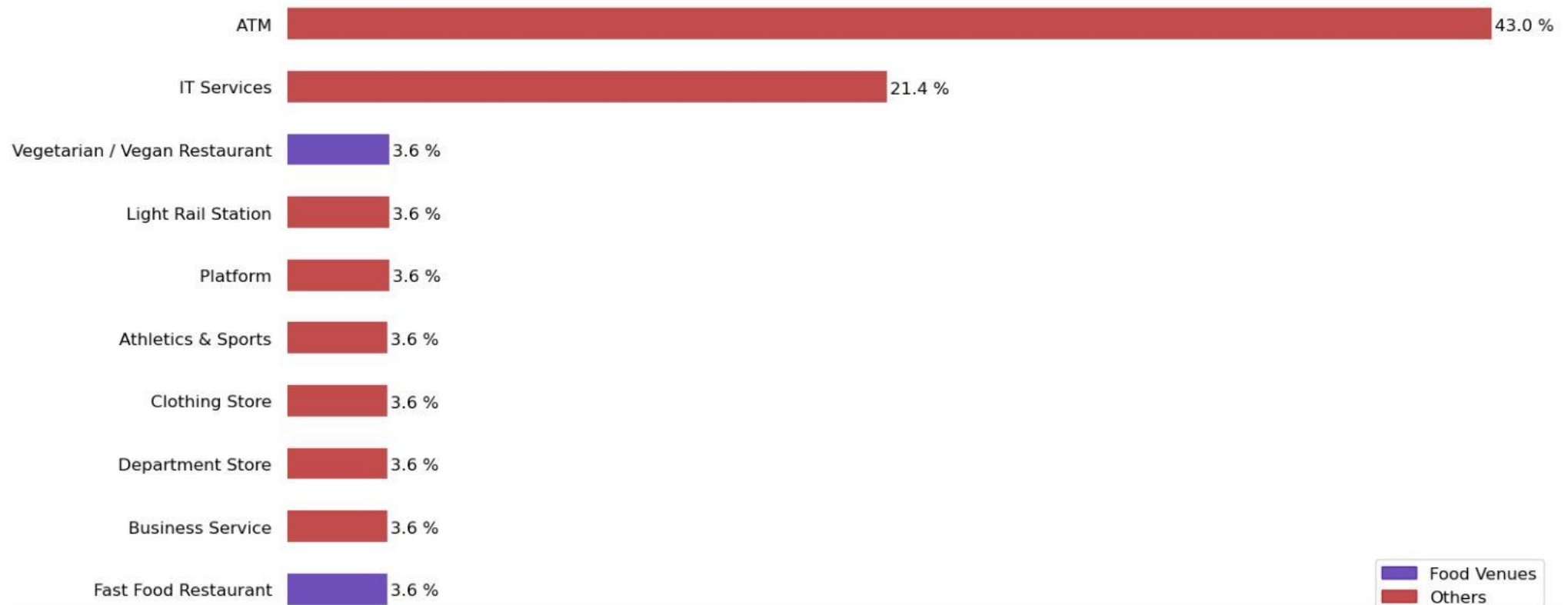
Ten Most Prevalent Venues of Cluster 2
(in % of all venues)



Ten Most Prevalent Venues of Cluster 3 (in % of all venues)



Ten Most Prevalent Venues of Cluster 4
(in % of all venues)



Discussion

The competition is between cluster 1 and cluster 4. How can we make a decision? If we analyze the neighborhoods, we observe that places in cluster 1 are closest to the city center than those in cluster 4.

Consequently, we have greater chances of more footfall here. Some of the most famous areas in cluster 1 include:

- Shastri Nagar
- Tis Hazari
- Jor Bagh

Conclusion

- Shastri Nagar, Tis Hazari and Jor Bagh are among our 9 nine candidate neighborhoods for opening a Chinese restaurant.

Factors influencing final decision:

1. Attractiveness of each location,
2. proximity to major roads,
3. real estate availability and their prices.