

The Battle of Neighborhoods – Presentation

By Daniel Chamorro

Introduction



The “ÉXITO” group is a Colombian multinational which has a huge network of supermarkets in South America.

Introduction



The management of “ÉXITO” group in the city of Bogotá, capital of Colombia, has detected that it is losing market share due to the appearance and positioning of new competitors.

Business Problem



The invitation to all interested data scientists is to determine in which localities in the city of Bogotá the supermarket network should be strengthened, considering the number of existing supermarkets of the detected competitors and those of the company “ÉXITO”.

Data



WIKIPEDIA
The Free Encyclopedia

Because the city of Bogotá is divided into 20 localities, the first set of data relates the number, name, zip code, area, population and population density of each of the localities.



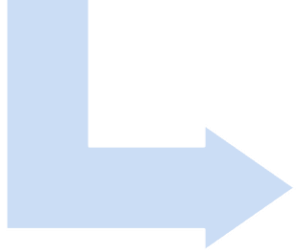
FOURSQUARE

Now to have information on each of the supermarkets, both their own and those of the competitors, it will be necessary to use the Foursquare API. The most relevant information to extract for this problem is the number of supermarkets in each of the networks.

Methodology

1

- Extract and transform the data



2

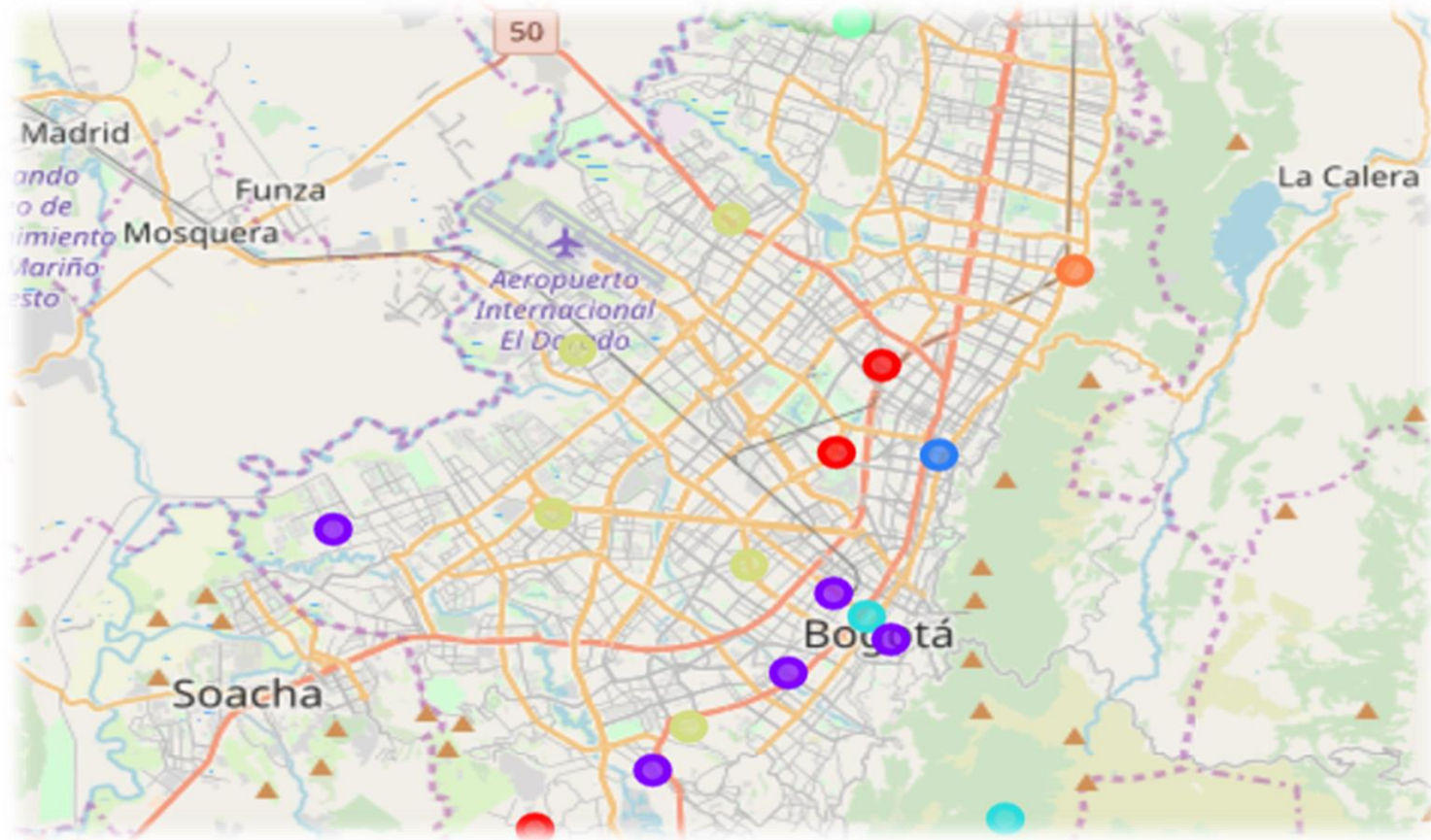
- Clustering model



3

- Cluster analysis

Results

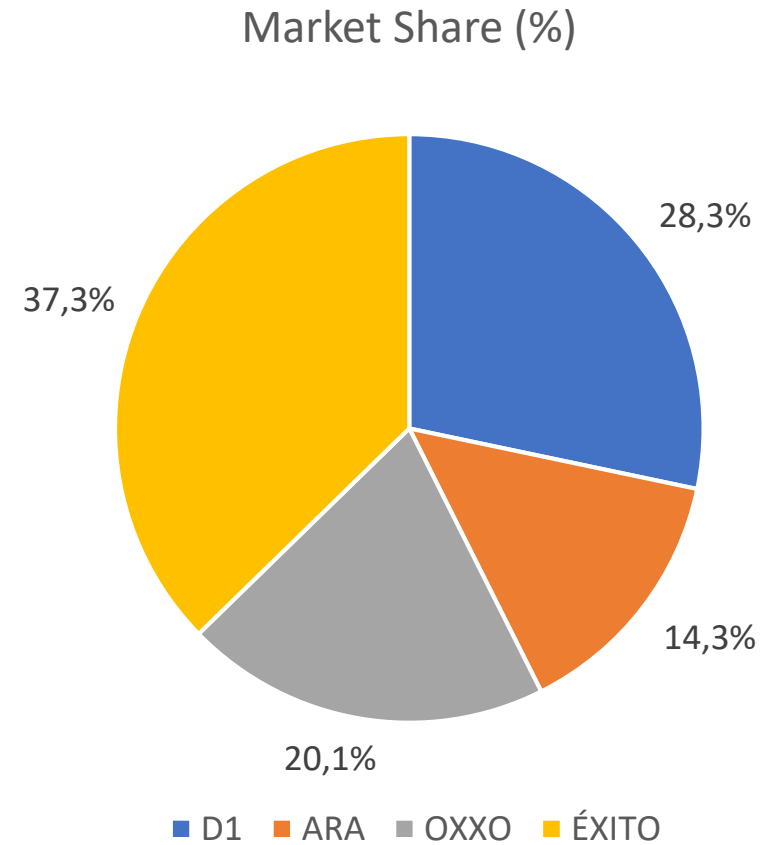


Map with the clusters obtained

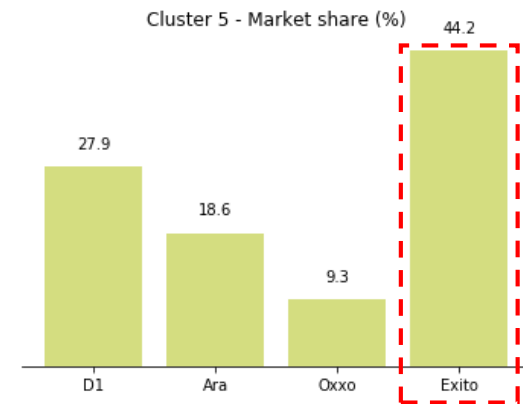
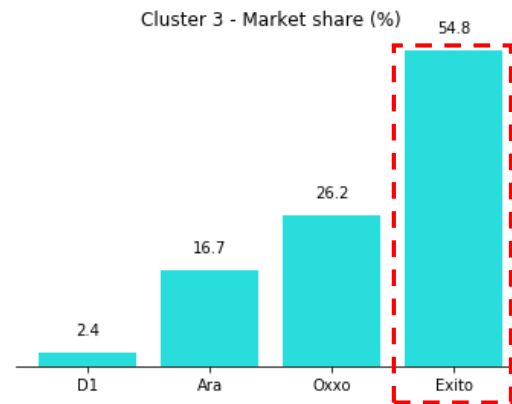
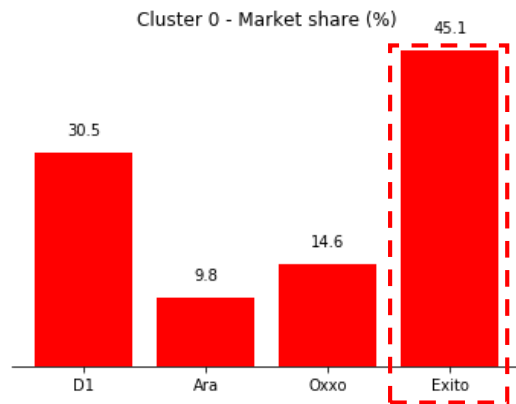
Results

Cluster	D1	ARA	OXXO	ÉXITO
0	25	8	12	37
1	11	3	12	11
2	20	10	20	15
3	2	14	22	46
4	24	5	6	9
5	24	16	8	38
6	29	12	16	22

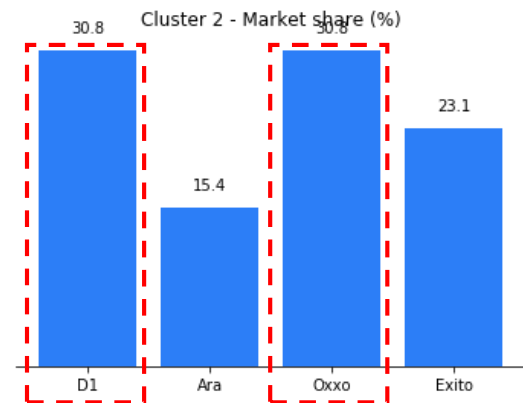
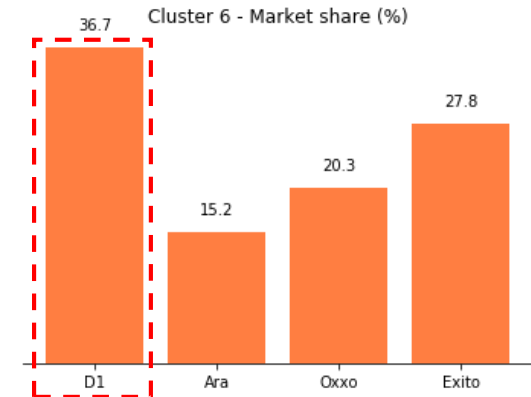
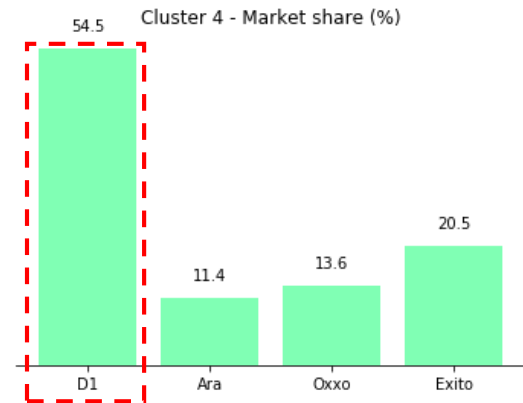
Number of supermarkets for each network
in each cluster



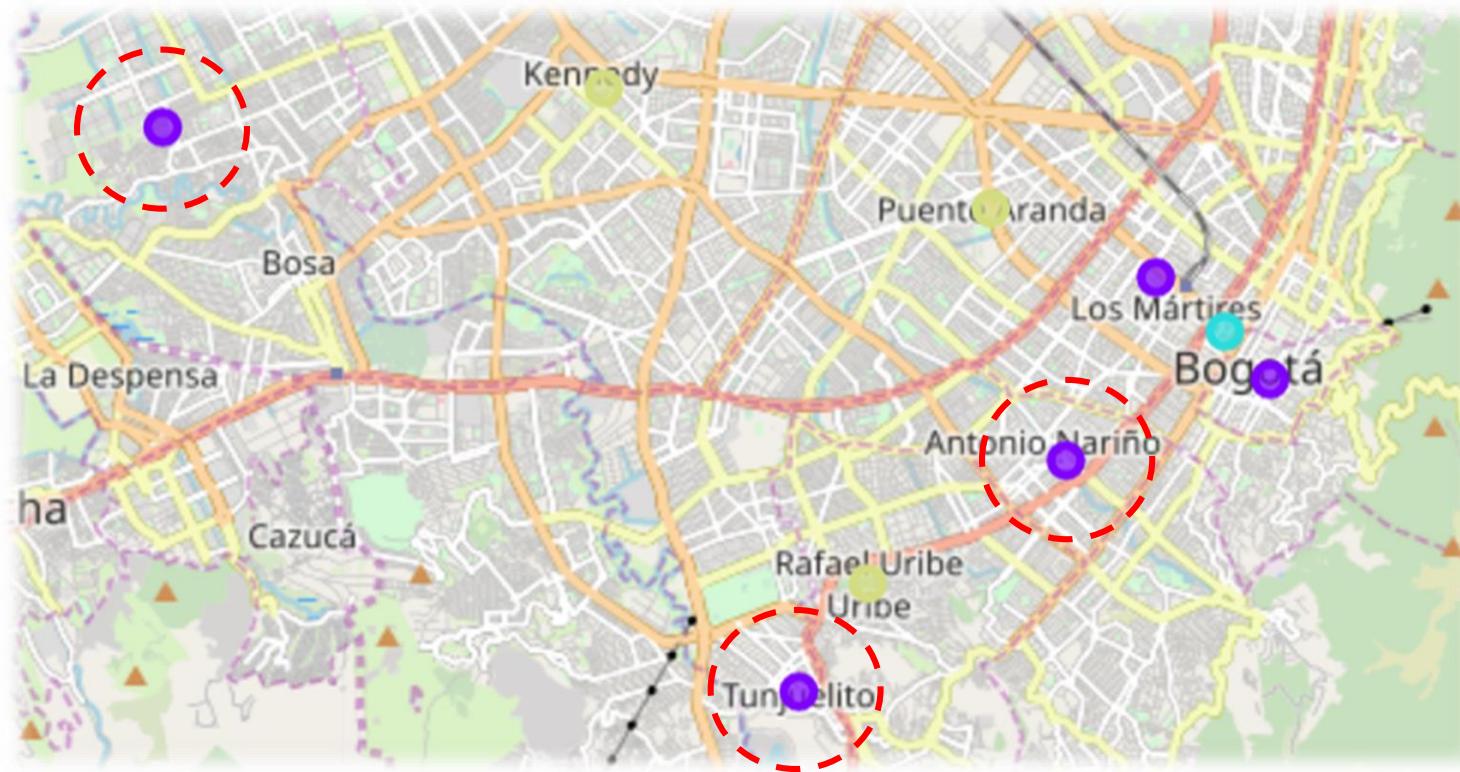
Results



Results

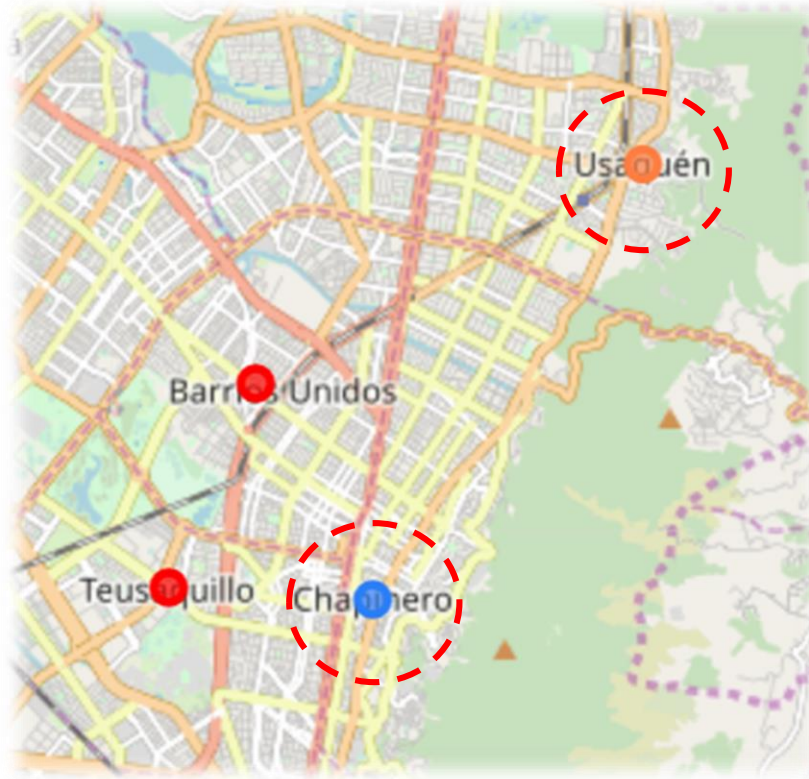


Discussion



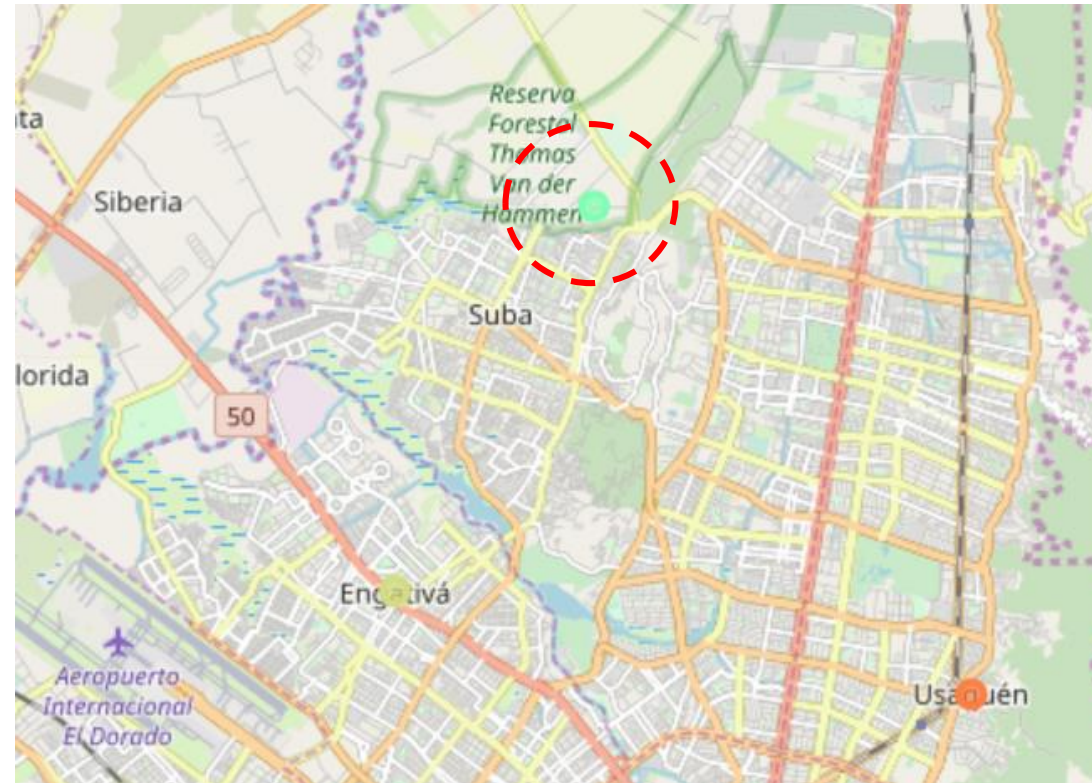
Locate new supermarkets in the localities of: "Tunjuelito", "Bosa", "Antonio Nariño" and where they only have one supermarket.

Discussion



Locate new supermarkets in the localities of "Chapinero" and "Usaquén" in order to regain control of the market share.

Discussion



New supermarkets must be located urgently in the locality of "Suba", given that the "D1" network has positioned itself with 54% of the market in this locality.

Conclusion

As we have seen throughout this report, the data extracted from Wikipedia and the Foursquare API, about the localities that make up the city of Bogotá in Colombia and the supermarket networks "D1", "ARA", "OXXO" and "EXITO" have been used to propose a clustering model. The proposed model has served to make some suggestions of which are the localities that need more attention from the management of the "EXITO" group, in order to locate more supermarkets that allow them to recover their market share. It is expected that the recommendations made in the "Discussion" section will be sufficient to solve the identified business problem.