

The influence of the location
of the commercial premises
when installing a web
business in Chile.

DESCRIPTION OF THE PROBLEM

- ▶ The ICT industry in Chile is on the rise and "the relevance of this sector is that it provides an important part of the national economy" (Gatica, 2018). This is why it is seeking to further boost the market, which implies unsatisfied demand.
- ▶ To satisfy this growing demand, the idea of forming a company offering computer services arises. It will supply part of the growing demands.
- ▶ However, it's necessary a market study deeper. In this case a study about how the current enterprises work will be useful. For this objective it will be used a machine learning algorithm, in specific a k-means clustering, to get the most relevant information about actual enterprises in this area.
- ▶ All this will be useful to determine the influence of the location of the commercial premises when installing a web business.

DATA PREPROCESSING

► SOURCES.1

- About the data, first was necessary name of the states in Chile. Then, with the location of states, data downloaded were got with foursquare API. In particular, data about companies of Web services area in Chile2.2.

► DATA CLEANING.

- Even data was obtained with **search** method of foursquare API, there were data no relationated with the area of web companies. For this reason was necessary clean it, deleting the unnecessary data.
- Besides, boolean data and data with labels were transformed to quantitative data.
- Finally all the data was merged in a table.

METHODOLOGY

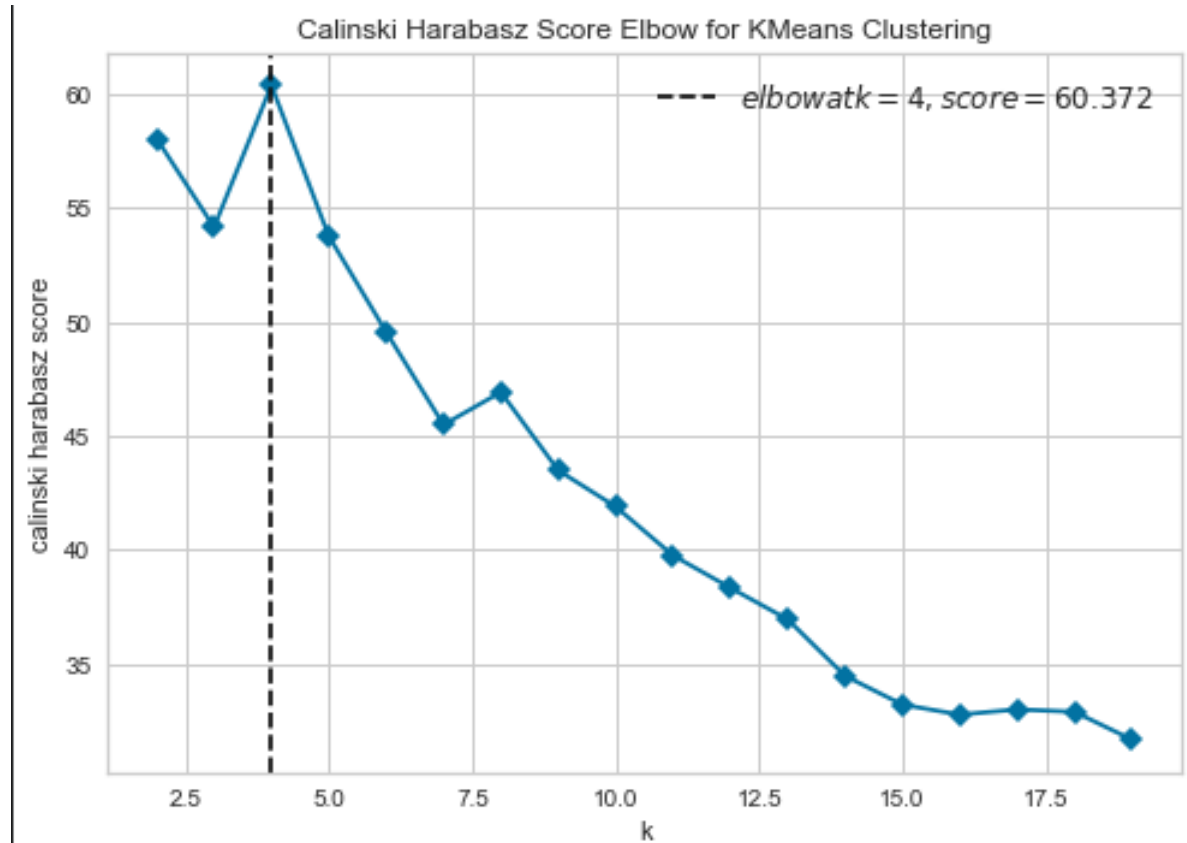
Graphing data.

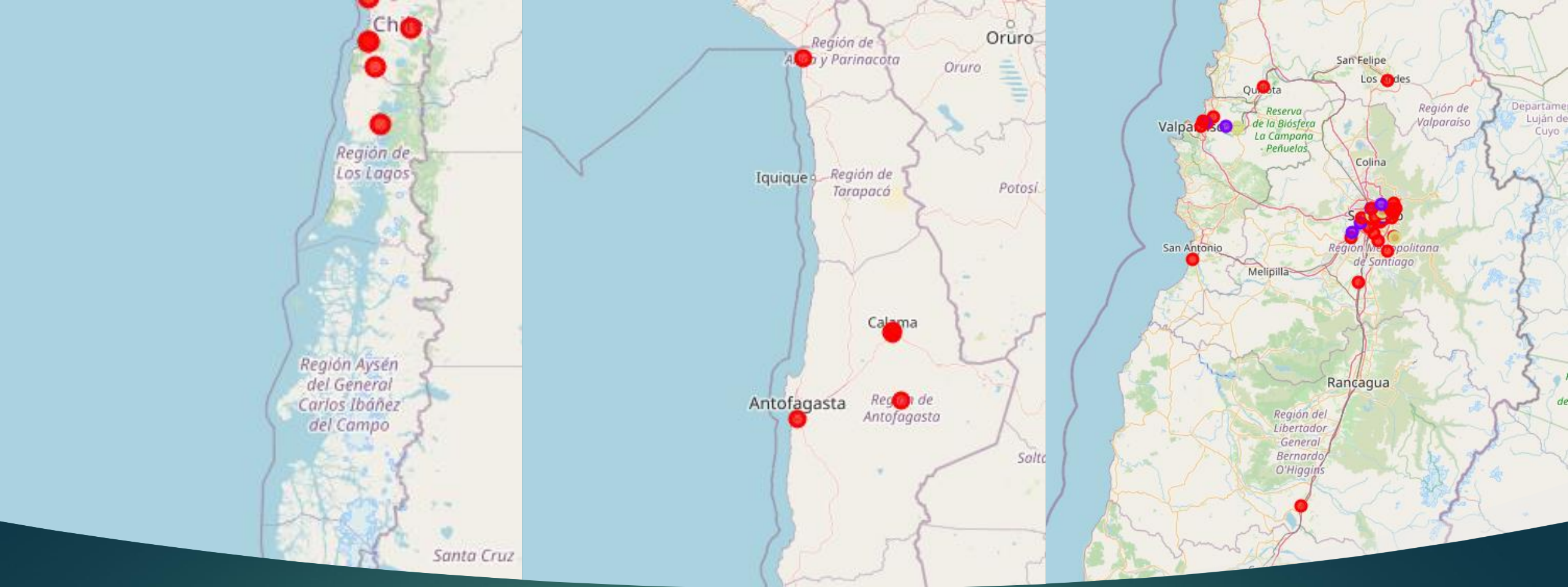
- This is the location of companies before applying clustering algorithm.



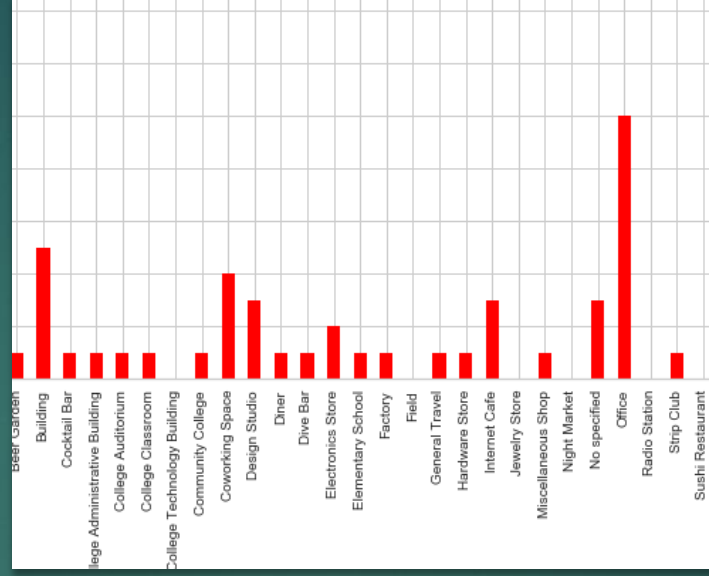
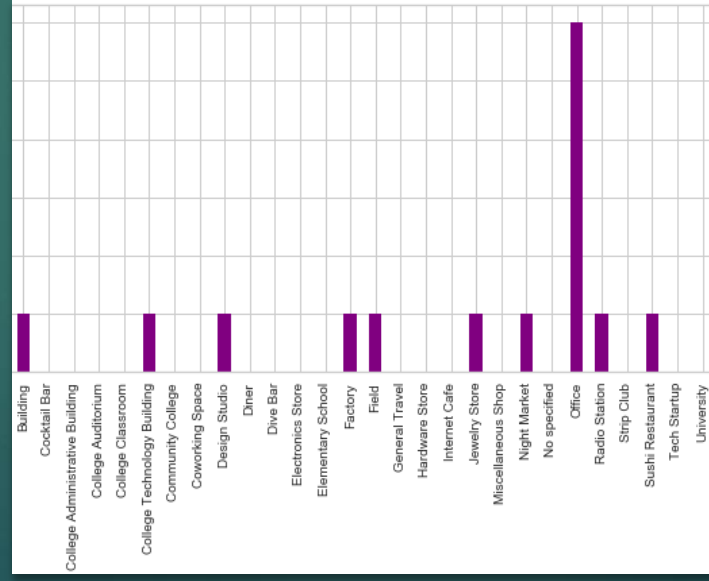
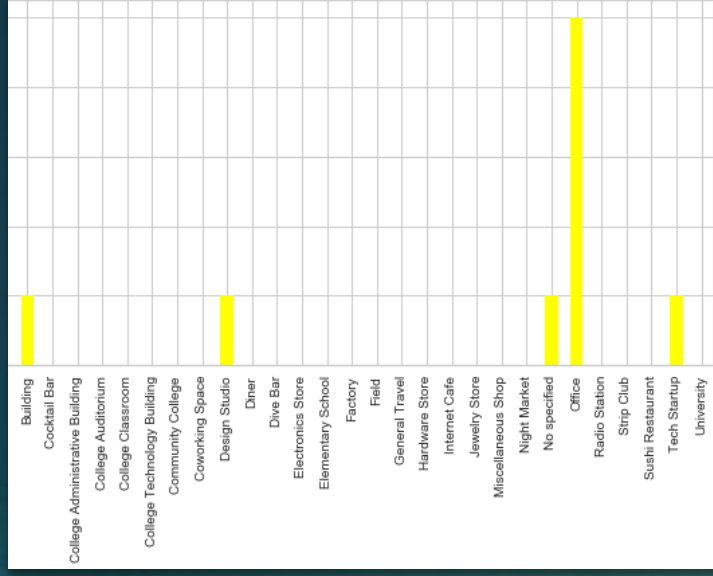
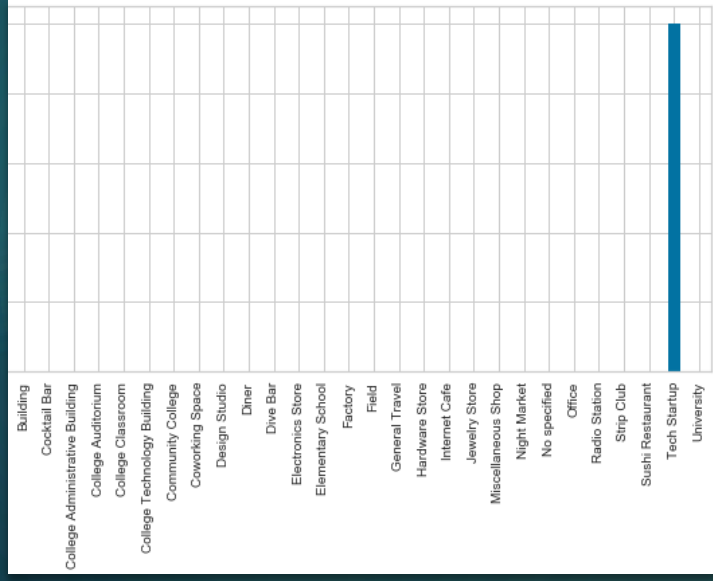
Fitting Model.

- Number of clusters will be 4, based in Calinski Harabasz Score Elbow.





South – North – Central zones



The
quantity of
type of
business
per cluster.

CONCLUSION

There is a tendency for companies belonging to the cluster with the highest approval to be found in the center of the country.

At the ends of the country are those clusters with the lowest scores.

In addition, there is a lack of diversification in terms of items. In general, web design companies themselves predominate, while in the center there is more diversity, with all kinds of companies in the web sector. This is particularly interesting, since one of the greatest difficulties with companies located at the extremes is the difficulty of meeting between the bidders and the plaintiffs, which means that the sector to which the company is dedicated is 100% online.