

# Business Location

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In the business world, the location of a business has a significant impact on its future, it is essential to choose the right location to ensure that it is convenient for customers and that there is sufficient demand in the area, which makes deciding on the location of a business a crucial step for any entrepreneur wanting to start or expand their business activities.

The objective of the project is to identify the optimal location for a business in Haiti, more specifically in the western department.

The establishment of a business in any location depends on certain factors such as: the number of similar businesses existing in the area, the percentage of the market of these other businesses, their modes of operation, the services they offer, their marketing strategy, the statistical data of the population of the territory, the level of security, the available access roads and many others. With this kind of data, the project will have the ability to identify the safest and most profitable location for the business to establish.

The analysis of business location significantly affects the living conditions of citizens and entrepreneurs in terms of different aspects. From the citizens' perspective, quality of life and convenience can be improved due to lower transportation costs and quick access to products through optimal business locations.

On the other hand, based on the same optimal decisions, entrepreneurial profit could be maximized by providing less travel to the store location with future success and an increasing number of satisfied customers. So a project like this will therefore be profitable for both contractors and customers.

The data available for the realization of the project are the results of a survey carried out among Haitian companies, the information concerns the geographical position of the company such as: the department, the commune, the communal section as well as the district in which the company is located, other important information such as the type of the company its sector of activity, the services that they offer etc. the data on the whole of the population bordering its companies are also available. Other important information, such as the level of security in

different areas, will be measured by the number of police stations surrounding these businesses.

The data comes from several sources and some of the information is confidential, such as the information about the different companies. The information about the location of police stations will be obtained by scraping websites, and the information about the population of different geographical areas is the result of a survey conducted by "The World Bank".

For the realization of the project, the model used will be an unsupervised machine learning model called "clustering". Clustering or cluster analysis is a machine learning technique, which groups the unlabelled dataset. It can be defined as a way of grouping the data points into different clusters, consisting of similar data points. The objects with the possible similarities remain in a group that has less or no similarities with another group, the aim is to segregate groups with similar traits and assign them into clusters.

### ***My Interest In This Project***

I have always been attracted to the business world. In the future, I am strongly considering having other sources of income and when I think about it the only thing that comes to mind is having businesses, so as someone thinking about getting into the business world it is important for me to know how to analyze the opportunities that the analysis of business location can offer.