**1. Business Understanding**

**Business Overview**

Cote d'Ivoire is a country in west Africa, currently it wants to upgrade its technological infrastructure for mobile users in Ivory Coast

**Business Objective**

My main objective of this report is to identify how Ivory coast should carry out the procedure of upgrading its technology infrastructure within given cities.

**Business Success Criteria**

To compile a list of states that will increase the return on investment of the campaign resulting in winning the election.

**Assessing the Situation**

**1. Resource Inventory**

a. Datasets:

i. cells\_geo\_description.xlsx  [(Links to an external site.)](https://drive.google.com/a/moringaschool.com/file/d/1-rIM5ihDu79RaH7rAs-d-7SQSAQhrY9N/view?usp=sharing)

ii.CDR\_description.xlsx  [(Links to an external site.)](https://drive.google.com/open?id=1cVoNXl25IO5-_yQk97ThdeqhE6yw8YTD)

iii.cells\_geo.csv [[Link] (Links to an external site.)](https://drive.google.com/a/moringaschool.com/file/d/1ABZux280OjL3yWcOn8BDA_f5QsyO0QPU/view?usp=sharing)

iv.CDR 20120507 [[http://bit.ly/TelecomDataset1] (Links to an external site.)](http://bit.ly/Telcom_dataset1)

v.CDR 20120508 [[http://bit.ly/TelecomDataset2] (Links to an external site.](http://bit.ly/Telcom_dataset2)

vi.CDR 20120509 [[http://bit.ly/TelecomDataset3]](http://bit.ly/Telcom_dataset3)

b. Software( Github, Google Collaboratory)

**2. Assumptions**

a. The data provided is correct and up to date

**3. Constraints**

a. There are no constraints

**Data Mining Goals**

Our data mining goals for this project are as follows:

- Calculate the grand electors per capita i.e calculate the ratio of grand electors to

the population in each state - Order the states in order of decreasing grand electors per capita. - Get the running sum of grand electors of the top states.

**Data Mining Success Criteria** Our success criteria will be measured by the following criteria;

Finding out the most used city for the three days?

Finding out cities were the most used during business and home hours?

**2. Data Understanding**

**Data Understanding Overview**

For this project, we are using the availed dataset by the company. These datasets are

★ Telcom\_dataset1 - This dataset gives the number of electors per state.

★ Telcom\_dataset2 - This dataset show the population of each state.

★ Telcom\_dataset3 - This dataset gives the number of electors per state.

**Data Description**

We have two datasets available for this project. A detailed description of the datasets is provided as follows:

❖Telecom dataset**-** This dataset contains the company details that allow me to track their data usage and service. It consists of 9 columns;**PRODUCT,VALUE,CELL\_ON\_SITE,DW\_A\_NUMBER\_INT,DW\_B\_NUMBER\_INT,COUNTRY\_A,COUNTRY\_B,CELL\_ID and SITE\_ID*.*** These columns show the

**Verifying Data Quality**

None of the two datasets had any missing values. There were also no known data errors in the datasets. There were misspeliing and other corrections i made on the datset

**3. Data Preparation**

These are the steps followed in preparing the data

**1. Loading Data**

Loaded the datasets from the CSV and then on python notebook.

**2. Cleaning Data**

While doing data exploration, i noticed that in Telecom dataset the first column was misspelled and I corrected it.I also corrected the geo dataset. As a result, this would make the merging of the datasets easier.

**3. Merging of the Datasets**

After cleaning the data, it was time to merge the datasets.

**4. Deriving New Attributes**

**4. Analysis**

### Recommendation