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The average number of maize production in Kenya.

Introduction

Maize is one of the most crops grown in Kenya, mostly for local use but it is also exported to other countries for sale and the country can earn revenue from it. Hence there is a need to get a lot of information from the farms which grow maize and see where this agriculture practice can help improve these farms and the produce.

Sampling strategy.

1.0 Sampling objectives and reliability.

In terms of the kind of Sample that I will use in this analysis, I was required to have a great understanding of Sampling methods. It took a week to be able to identify the types of sampling and get examples from different sources and people. Was able to call and contact different farmers in the country especially from **Trans-Nzoia, Uasin Gishu,** and **Nakuru.**
As of the past **2 years,** Kenya has had average produce of **2 Metric tons** of maize, which depreciated in the year **2020** by **4.3%.**
Below are some objectives I laid out for this research;

1. To get average maize produce in a year
2. To get the average sales made in a year
3. To get the average number of workers recruited per year

1.1 Population.

In this project, my target Population is in **Kenya**. Kenya is a country in the East of Africa, known for its great production and growth in Agriculture. Kenya has quite a several crops grown and exported, maize being one of the major exports in the country making the country earn revenue to develop Kenya's infrastructure.
Despite Kenya having stiff competition from her neighbors, **Tanzania and Uganda,** she has been able to produce and export maize to other countries majorly to the Middle East and earn enough revenue for the country. I chose Kenya as my target population because, I am

conversant about the country's welfare and that it is also easy to do my research, hence issues like transport cost will be favorable.

Kenya being a large country containing 47 counties, makes me get a sample from the counties themselves since it will be difficult to work with the whole county's population which is about 53.77 million people as of June 2020.

1.2 Sample approach

There are four types of sampling;

>**Stratified sampling.**
>**Cluster sampling.**
>**Systematic random sampling.**
>**Simple random sampling.**

Because I will be dealing with large numbers and figures, I opted to use **cluster sampling** because it is easier to use and also since I already know the counties present and easier to get their information. I will be able to gather counties in groups and work with them with ease as collective research.

The counties have clusters since it is a gathered piece of data that is easier to use. All data is confined into a simple form under one docket hence easy reading and sampling the counties. I am going to select the counties to use under my research, to get a rough idea of how to go about the problem statement. Having placed that I will pick a maximum of 4 top counties growing maize in large quantity i.e **Trans-Nzoia, Uasin Gishu, Bungoma,** and finally **Nandi.** I believe that the sampling method that I have chosen will be appropriate and give great results.

1.3 Sample size

I will be dealing with many farms on the listed counties above, hence my objective is to interview a range between **7 to 15 farmers** on a farm, depending on the number of workers on that farm alongside time.
I will also get in touch with exporting companies in the country, that export maize for example **Cargill,** to get information about the number of products received from farms and export amount. With this information, I will be able to gauge with the information given to me by the different farmers in different farms and get the average of every data gathered.
I believe that this number will give me adequate information for me to carry out my research at ease with no struggles. Will be able to gather more information to the extent that it will build

my confidence in other Data analyses or sampling making my work have a lot of factual details and be captive.

1.4 Sample representativeness

Based on the samples I have gathered from the farmers, be it figures or names, The best place to be able to store the information gathered would be in a **Microsoft Excel spreadsheet**. This is appropriate since it will always be available and ready to update whenever I need it, especially after going to other areas or interviewing another farmer and getting the figures right. I will be dealing with figures, and this Platform will be better off, ready to be used at any time to get the details for later sampling.
I will also print out copies of this information, to have hard copies as well and store well in files for easier references

Data

1.5 Data collection

During Data collection, I will use the common types of data collection;
>**Interviews-**Having a sit-down interview with the farmers will make me gain a lot of information that I need in detail since the farmers will exploit everything that they have and lay it all out in facts and figures
>**Questionnaires-**Administering questionnaires to farmers will help me gain other non highlighted information or which was confidential not quite a good time to talk about it in an interview. So I will use the questionnaires to confirm my findings.
>**Observation-**Through observing I will be able to get some information. Moreso about the land, is it productive, Is any work being done to it, is the land being taken good care of, is there any form of pollution in the area, etc.
>**Recording-**Will be able to record the interviews done with the farmers and different companies involved in this research. To be able to have solid evidence and refer easily later on as either a reference or clarity.

1.6 Quality assurance

In this section Data measurements will take place in an orderly manner as shown;
(a)Nominal
Nominal scales are used for labeling variables without any quantitative value. Asking questions and giving an open space with choices to choose from. This will be mainly done in the questionnaire
(b)Ordinal

Ordinal scales are typically measures of non-numeric concepts like satisfaction, happiness, discomfort, etc
Normally from the word **"Ordinal"** means order, so through a list, the order should be from a more sensitive to the least and vice versa.
For instance, I can ask a farmer to rate the happiness they have in a specific farm that the farmer works in

(c)Interval
Interval scales are numeric scales in which we know both the order and the exact differences between the values. This gives us an understanding of the relationship between the two values.

(d)Ratio
Ratio scales are the ultimate nirvana when it comes to data measurement scales because they tell us about the order, they tell us the exact value between units, AND they also have an absolute zero–which allows for a wide range of both descriptive and inferential statistics to be applied.

1.7 Implementation plan
This Sampling needs to be done as soon as the production of maize is abundant, and this is during the rainy season which is from June To September. This Activity should take place the following year in September between the 20th-16th of that month.
I will gather a small committee that will help me in Data collection and doing the analysis bit to save on time and get enough information that I need.
Having done full research of the area to get ourselves familiar with what we will expect, especially problems like **language barrier, hostile communities, climatic conditions, attacks from dangerous animals(snakes, etc)** hence might be difficult to get the right information that we need.
Among the committee members, I should at least get a translator, who will be able to solve one of the problems that we will encounter.
I will make sure that there is a contract available and get consent from the volunteering members.