1. The study design employed is observational. This type of study involves zero manipulation of the situation, circumstance or experience of participants. The dataset provides information on farming systems characteristics and how each system affects agricultural production in selected countries in Africa. This research approach gives strong validity and in-depth understanding of the situation at hand as research participants are studied in real life situations.

   The population was sampled using multi-stage stratified random sampling. This method is appropriate because the data collection points were villages in selected districts that captured representative farms across diverse agro-climatic conditions within each of the eleven countries. This data collection approach makes primary data collection more manageable, less expensive and less time-consuming.

   As stated in the summary, procedures were put in place to help minimize biased data production. Sample data was boundary specified. This reduces the occurrence of outliers. Face-to-face interviews were conducted which help with high response rate. This also provides a means for the interviewers to explain certain complex questions to the respondents. However, non-sampling errors were evident. This resulted from the following:

   - ✓ Multiple visit surveys to reduce memory and recall biases were not feasible due to cost implications of the wide geographic spread of the sample.
   - ✓ Information missing for 7% of all variables and 58% of all the data entries were 'Not Applicable'. This was as a result of respondents not knowing the answer to the questions, not disclosing some information or the question not applying to them. There were cases where 'Others' was selected but was not further specified, thus, creating ambiguity. There is also the case where some respondents would feel uncomfortable with a face-to-face interview or could be influenced by the interviewer and thus not be honest with some answers.

2. Research Questions
   - I. Are farm costs and farm subsidiaries positively affected by Access and Extension services?
   - II. Does the availability of Access and Extension services affect the quantity of food and tree crops harvested positively?

3. Plan for statistical analysis of II
   - ✓ Data: interval ratio
   - ✓ Sample: 9,500
   - ✓ Purpose: Test for Relationship
   - ✓ Statistical analysis: Linear regression or Pearson correlation coefficient

   Hypothesis

   H_o :- Access and Extension services do not affect the quantity of food and tree crops harvested

   H_a :- Access and Extension services affects quantity of food and tree crops harvested

Linear Regression or the Pearson's Correlation Coefficient will be employed. These two tests are appropriate because they seek to finding a relationship between the dependent variable (quantity of food and tree crops harvested) and independent variable (Access and Extension Services) or the relationship between two continuous variables.

To determine significance, a P-value of 0.05 (generally used and accepted) will be assigned to the test. If the P-value is higher than alpha, H_o will be accepted. However, if p-value is less than alpha, then H_o will be rejected. Practical significance will also be evaluated in order to authenticate statistical significance.

4. If a significant effect resulted, it would imply the acceptance of the null hypothesis indicating no relationship between the variables.
   If the results were insignificant, it would imply a rejection of the null hypothesis indicating the existence of a relationship between the two variables.

   The population under observation is very large and is likely to take the form of a normal distribution. The study set out to answer the research questions by identifying a relationship between two measured variables of the population sample. The findings will either indicate the presence or absence of a relationship between the two variables

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