I "Socio-economic Assessment of Flood Disaster on the Livelihood of Urban Dwellers in South Western Nigeria".

i What is the object of this study? (Pg 86)

Object of the study is the entity to be studied within the subject

In this case, Object of the study is Flood Disaster.

ii What is the subject of this study

Subject is the theme or issue to be studied.

In this case, subject of the study is Socio Economic Assessment.

iii Is there any spatial component for this study? If yes, indicate it.

The Location; entails the spatial Component (Geographical spread) and Temporal component (time frame of the research).

In this case, spatial component is South Western Nigeria

iv Is there any temporal component for this study? If yes, indicate it.

There's no temporal component.

v Come up with a succint research problem for this study.

Come up With a research problem.

vi Specify 5 research Questions for this study

- What is the socioeconomic characteristics of urban dwellers in South Western Nigeria?
- What is the perception of urban dwellers in the study area on flood disaster?
- What are the adaptive strategies in place on the occassion of flood disaster?
- Are there means to raise the public awareness on flood disaster and its impact?
- What are the impacts of flood disaster on the livelihood of urban dwellers in Southern Nigeria?

vii Provide the broad objective for this study.

To carryout determine the socio economic assessment of flood disaster on the livelihood of urban dwellers in South Western Nigeria.

viii Highlight 5 specific objectives for this study

- To assess the socioeconomic characteristics of urban dwellers in South Western Nigeria.
- To determine the perception of urban dwellers in the study area on flood disaster
- To assess whether there are adaptive strategies in place against flood disaster
- To assess the impact of flood disaster on the livelihood of urban dwellers in Southern Nigeria
- To know if there are means of raising the public awareness on flood disaster and its impacts.

2 Assume the following is the lead equation for a maize-based farm

$$Y = 3.5 + 1.3b_1 - 2.1b_2 + 3.2b_3 + 1.7b_4 + 2.8b_5 + 4$$
$$(3.9) \quad (4.1) \quad (-1) \quad (2.7) \quad (3.2) \quad (3.4)$$

Y = total output of maize and other mixed crops

b_1 = seeds ; b_2 = herbicide ; b_3 = fertilizer, b_4 = Credit, b_5 = labour.

Figures in parentheses are t-ratios

$R^2 = 0.86$

a - Explain the implication of the signs on the parameters.

The signs shows the relationship between the variables (inputs) and the output i.e the relationship between the independent variables and the dependent variables.

Plus (+) sign shows a direct/positive relationship while negative (−) sign shows an inverse relationship.

Meaning; there's a positive relationship between seeds, fertilizer, credit and labour to the total output of maize i.e As the amount of seeds, fertilizer, credit, labour increases, the total output of maize and other mixed crops also increases.

And there's a negative relationship between herbicide and the total output of maize so, the higher the amount of herbicide used, the lower the output.

b Importance of R^2

R^2 stands for the coefficient of Determination and it measures the total variation of the dependent variable that is being measured by the independent variables.

So, here 86% of the total variation in the output of maize and other mixed crops is being measured by the independent variables (seeds, herbicide, fertilizer, Credit, labour).

The remaining 14% is being measured by the random error.

c Relevance of the coefficients of the parameters.

So, for each of the parameters,

- $+1.3b_1$ means the total output in maize and other mixed crops increases by 1.3 units for every one unit increase in seeds.
- $-2.1b_2$ means the total output in maize and other mixed crops reduces by 2.1 for every one unit increase in herbicides
- $+3.2b_3$ means the total output in maize and other mixed crops increases by 3.2 for every one unit increase in fertilizer.

d) Implications of the t-ratios if only that of the herbicide is almost zero

If the t-score is large, then the sample is far from zero and H_a (Alternative hypothesis) should be accepted and null rejected. And if the t-score is small, the sample is close to zero.

In this question, we have been told already that only herbicide is close to zero so, it means we can reject the null hypothesis for the others thereby stating that they are statistically significant from zero. So, the variables are statistically significant except for variable b_2 for herbicide.

i) How will you advise the farmer in future farm production?

A brief explanation required explaining that increase in seeds, fertilizer, credit, labour will increase output and vice versa.

Comment generally on the equation

A brief explanation on the equation being linear and it is a regression model. Apply Econometrics idea.

4) Write briefly on the following:

i) Simple Random Sampling is a form of sampling such that individuals are selected from the population and each individual has an equal chance or probability of being selected. There are 2 methods for carrying out SRS (i) Names in the hat (ii) Use of random table.

ii) Stratified Sampling involves dividing the population into subgroups or strata that have know characteristics that might be important to the study. Stratified Sampling comes in 2 types (a) Proportionate stratified Random Sampling (b) Disproportionate Stratified Random Sampling.

iii) Quota Sampling is a form of non probability sampling and it is a subjective method of selecting samples from a population of study. It is the type of sampling scheme in which deliberate control factor is used to draw samples from a study population on the assumption that the chosen samples have similar characteristics with the sampling population.

iv) Multi stage Sampling usually involves combination of sampling methods. It usually involves combining various probability techniques in the most efficient and effective manner possible. And the process of sampling is carried out stage by stage using the most appropriate methods in each stage.

b Define the term hypothesis

An hypothesis is an assumption of an idea under study. It can also be defined as a conjectural statement that is yet to be tested. It should be noted that an hypothesis forms the basis of a research. It is an assertion about the population parameter or a population distribution of one or more variables belonging to a particular population.

ii 5 qualities of a good hypothesis.

- It must be clear and precise
- It should be capable of being tested
- It should clearly state the relationship between the variables
- It should be stated in simple terms
- It should be amenable to testing within a reasonable time.

iii Procedures involved in hypothesis testing (Pg 105)

- State the null hypothesis (H_0)
- State the alternative hypothesis (H_1)
- Select the test statistics
- Select the level of significance
- State the decision rule
- Collect the data and perform the calculations
- Statistical decision and conclusion.

iv Differences between type I and type II errors

Type I error is the error committed when the null hypothesis (H_0) is rejected when it is actually true while Type II error is the error committed when you accept the null hypothesis (H_0) when it should be rejected.

5i) ~~P.~~

~~Iwedowo, I.A.~~

~~Mbadiwe, I.F, (2017). Impact of climate variability on the livelihood of cassava farmers.~~

Mbadiwe, I.F: (2017): The link between climate change and livelihoods of cassava farmers. Impact of climate variability on the livelihoods of cassava farmers. The Nigerian Journal of Social Sciences: 30(2): 45 – 55.

~~Iwedowo, I.A. (2016). Research Methods: Concept and Applications.~~

3b The paradigm of development has been discussed by many researchers Adeyemi (2009), Adeyemi, Adedolapo, Adedimeji and Aderibigbe (2011) and Tolomiju, Akande (2013) over time. The foci most of the time revolved round welfare of the people as asserted by Adeolu (2015). Development from this perspective therefore, implies long-term increase in per capita income of the citizens in a country. This view is also supported by Adewuyi (2016).

c Importance of literature review in a research study
- It avoids repetition of research efforts
- It helps you to identify research gaps and thus providing a framework for establishing the importance of your research
- Provides basis for comparing your works
- Provides references for adequate methodology for your current research.

b Describe 5 sources of literature materials.
- Journals
- Periodicals
- Textbooks
- Proceedings
- Bulletins
- Reports

Remember to Describe.

c Differences between Questionnaire and Interview method
- While Questionnaires can be mailed to the respondents to be answered in the manner specified in the cover letter, The INTERVIEW is a one to one communication where the respondents are asked questions directly.
- Cost for questionnaires are economical as compared to that of the interview.
- Questionnaires are written while interviews comes in Oral.
- Non response situation in Questionnaires are high but it is very low in Interviews.

d Requirements of a good questionnaire
- The language used should be easy and simple
- The length should be a proper one
- The questions should be arranged in a proper way
- The questions should be relevant to the problem
- The questions should be constructed for a specific period of time
- The answers required should be short and simple.

1) Describe the following tools of analysis and explain their strengths and Weaknesses.

a) Budgetary Analysis :

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b) ANOVA : stands for Analysis of Variance - It is a statistical method used to test the differences between 2 or more means. It is used to test general rather than specific differences among means. ANOVA can be One way, 2 ways or 3 ways depending on the number of factors contributing to the variations in the means.

Strengths

- It reduces random variability
- It increases statistical power

Weakness

- It has some assumptions which need to be fulfilled
- It requires that the population distributions are normal
- It assumes equality of variances for each group.

c) Linear programming : It is a mathematical procedure used for cost minimization, output maximization but more so, profit maximization.

Strengths

- It is a versatile technique which can be used to represent a number of real world situations

Weaknesses

- It is based on an assumption that the world is linear and it is not always the case.
- It also assumes that inputs and outputs can be fractional and it is not always the case in the real world.

d) Tobit Analysis : it is also called a censored regression model which is designed to estimate linear relationships between variables when there is either left or right censoring in the dependent variable (also known as censoring from below and above)

Strength

- It yields unbiased coefficient estimates for each of the variables in X

Weakness

- It does not allow for the set of variables used in explaining whether Y is positive or zero to differ from the set of variables used in explaining the value of Y conditional on Y being strictly positive.