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Journal Name:	Asian Research Journal of Agriculture
Manuscript Number:	Ms_ARJA_125428
Title of the Manuscript:	Analyzing the Socio-Economic Characteristics, Resource Utilization, and Production Challenges Faced by Cocoyam Farmers in Enugu State, Nigeria.
Type of the Article	

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PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	The manuscript is important for the scientific community as it sheds light on the socio-economic challenges faced by cocoyam farmers in Enugu State, Nigeria, highlighting the need for targeted interventions to enhance agricultural productivity. The rigorous analysis using descriptive statistics and regression techniques provides valuable insights into resource utilization and efficiency, which can inform policy and development initiatives in the area of study. I appreciate the study's focus on real-world challenges, pointing to the importance of integrating socio-economic factors into agricultural research to improve sustainable development. However, the manuscript could benefit from a deeper exploration of potential solutions to the identified challenges, which would enhance its practical applicability.	
Is the title of the article suitable? (If not please suggest an alternative title)	Please improve the TITLE at a maximum of 14 characters. I suggest changing it to, "SOCIO-ECONOMIC CHARACTERISTICS, RESOURCE UTILIZATION, AND PRODUCTION CHALLENGES OF COCOYAM FARMERS IN ENUGU STATE, NIGERIA"	
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	<p>Clarity and Structure: The abstract could be more concise by eliminating redundant information. For example, specific statistical values (e.g., R-values) can be summarized to avoid overwhelming detail in the abstract.</p> <p>Purpose Statement: Clearly state the overall purpose of the study upfront. This helps readers understand the main goal before diving into the methodology and findings.</p> <p>Key Findings: The findings should be more synthesized, emphasizing the most critical insights (such as resource inefficiency and challenges faced by farmers) without excessive details on the input use ratios.</p> <p>Methodology: Briefly describe the methodology without unnecessary technical terms (e.g., specific statistical techniques) unless they are central to the conclusion. Specifically describe the statistical tool used to determine resource use efficiency (i.e. Double-Log Regression), and production challenges (i.e' ranking method).</p>	
Are subsections and structure of the manuscript appropriate?	<p>INTRODUCTION:</p> <ol style="list-style-type: none"> The author may consider follow the SWALESIAN method in making an introduction. The author shall include the importance or resource utilization importance in the study and how it improves the production of cocoyam farmers in Enugu State. Support it the recent studies on resource use efficiency. <p>METHODOLOGY:</p> <ol style="list-style-type: none"> Please improve the grammar. I recommend to refer this to grammarian. I spot some of the errors and I provide some corrections for the improvement of the paper. <p>Study Area Section:</p> <ul style="list-style-type: none"> Error: The sentence "Enugu State comprises 17 local government areas (LGAs), which are Enugu East, Enugu North, Enugu South, Igbo Etiti, Isi Uzo, Udi, Oji River, Nkanu East, Nkanu West, Ezeagu, Uzo Uwani, Awgu, Ngwo, Obollo-Afor, Aninri, Enugu West, Nsukka Agricultural Activities in Enugu State..." is grammatically incorrect and contains unnecessary repetition. Correction: The list of LGAs should be revised for clarity and consistency. The statement should be: "Enugu State comprises 17 local government areas (LGAs), including Enugu East, Enugu North, Enugu South, Igbo Etiti, Isi Uzo, Udi, Oji River, Nkanu East, Nkanu West, Ezeagu, Uzo Uwani, Awgu, Ngwo, Obollo-Afor, Aninri, Enugu West, and Nsukka." Improvement: Remove "Ngwo" and "Obollo-Afor" as these are towns, not LGAs. <p>Sample Technique Section:</p> <ul style="list-style-type: none"> Error: The phrase "purposively selecting of five (5) local government areas (LGAs)" is grammatically incorrect. 	

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- **Correction:** Replace "purposively selecting of" with "purposive selection of."
- **Improvement:** Consistency in tenses needs to be maintained. The study should stick to either past or future tense. For instance, "A multi-stage sampling technique was employed" should replace "will be employed" to match the rest of the section.

Sample Size Section:

- **Error:** "This sample size is deemed sufficient to provide meaningful insights" lacks justification based on any specific rationale.
- **Improvement:** The sample size justification should mention considerations like statistical power, the population of cocoyam farmers, or comparison with previous studies in similar regions. A statement like "The sample size was determined based on the population of cocoyam farmers in the selected LGAs and is considered sufficient for meaningful analysis, in line with similar studies in agricultural research" would provide more clarity.

Analytical Tools Section:

- **Error:** The phrase "The following analytical tools was used" is grammatically incorrect (subject-verb agreement).
- **Correction:** Replace "was" with "were" to match the plural subject.
- **Improvement:** Objective numbering should be consistent and clearly stated. For example: "Objective I" should be written consistently with roman numerals throughout, and all objectives should be explicitly numbered in the text for clarity. The study was already conducted, therefore change 'will' to a past form of verb.

Double-Log Regression Function:

- **Error:** The equation provided has redundant notations (" $\ln Y = \ln a + \beta_0 + \beta_1 \ln X_1 + \beta_2 \ln X_2 \dots$ "). The presence of both "Ln" and "Log" is confusing.
- **Correction:** Consistently use "Ln" or "Log" but not both. Correct form: " $\ln Y = \ln(a) + \beta_0 + \beta_1 \ln X_1 + \beta_2 \ln X_2 + \beta_3 \ln X_3 + \beta_4 \ln X_4 + \beta_5 \ln X_5 + e$."
- **Improvement:** Clear definitions of symbols and terms are needed upfront. "Ln" should be explained as the natural logarithm, and "Xn" should be clarified (e.g., indicating what "n" represents).

Efficiency Ratio Section:

- **Improvement:** The explanation for how resource-use efficiency (RE) is calculated is unclear. It should provide a clearer explanation of the Marginal Physical Product (MPP) formula and how the values will be interpreted in practical terms, for example: " $MPP = b_i * (Y_i / X_i)$, where b_i is the regression coefficient, Y_i is the mean output of cocoyam, and X_i is the mean input level. The RE ratio (MVP/MFC) compares the value of the marginal product to the marginal cost to determine efficiency."

Typographical Errors:

- **Error:** Multiple instances of typographical errors, such as redundant "R=" in the formula section.
- **Correction:** Remove these redundancies, ensuring the formulas are correctly formatted and the notation is consistent throughout.

RESULT and DISCUSSIONS:

1. **Clarity and Consistency:** Ensure that data presented, such as age and educational attainment, is consistent and clearly defined. This helps prevent confusion and misinterpretation. Where percentages are provided, they should sum to 100%, and any remaining categories should be explicitly mentioned.
2. **Contextual Analysis:** While presenting the data is essential, it's equally important to provide context and implications. For instance, discussing how the age distribution might impact farming practices or the significance of the education levels in adopting new technologies could enrich the analysis.
3. **Integration of Themes:** The discussion could benefit from linking various themes together. For example, the relationship between educational attainment and access to extension services could be explored to highlight the interconnectedness of these factors in influencing farming

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	<p>practices.</p> <ol style="list-style-type: none"> Depth of Analysis: Expand on the implications of the findings. For instance, delve deeper into how the relatively young demographic might adopt modern practices or how the gender balance might influence agricultural decisions in households. Proofreading for Language and Structure: Ensure that the language is precise and free from grammatical errors. A well-structured discussion with clear transitions between sections will enhance readability and professionalism. <p>CONCLUSION</p> <p>To improve the conclusion, the following recommendations should be considered:</p> <ol style="list-style-type: none"> Synthesize Key Findings: Instead of restating the content from tables, focus on synthesizing the key findings in a more concise and narrative format. For example, summarize the significant socio-economic and production challenges (e.g., limited input use, inadequate credit access, and underutilization of key resources). Highlight Implications: The conclusion should draw attention to the broader implications of the findings. Explain how these challenges impact cocoyam productivity and, more importantly, the livelihoods of the farmers. Mention the potential socio-economic consequences if these issues are not addressed, such as the perpetuation of poverty or the inefficiency of agricultural practices. Provide Actionable Recommendations: Offer clear and actionable recommendations based on the findings. For instance, suggest interventions such as improving access to affordable inputs, increasing credit availability, providing targeted extension services, or promoting educational programs to help farmers adopt modern agricultural practices. Link Back to Objectives: Revisit the objectives of the study and demonstrate how the findings address them. This creates a logical closure and helps tie the conclusion back to the purpose of the research. Address Future Research Needs: Highlight areas where future research could build upon the findings. For example, recommend studying the effectiveness of specific interventions like training programs or microcredit schemes to address the constraints identified. Avoid Excessive Technical Details: The conclusion should focus on the key takeaways and recommendations rather than detailed statistical results. Technical information (such as specific regression coefficients or ratios) should be minimized to keep the focus on actionable insights. <p>Improved Conclusion Example:</p> <p>The analysis of cocoyam farmers in Enugu State reveals significant socio-economic challenges and inefficiencies in resource use that limit productivity. Farmers face constraints such as high input costs, inadequate access to credit, and underutilization of key inputs like fertilizers and herbicides, which impede their ability to maximize yields. Additionally, limited formal education among farmers may hinder their ability to adopt modern farming techniques. To improve productivity, targeted interventions such as increasing access to affordable inputs, enhancing credit availability, and strengthening extension services are recommended. These measures would help optimize resource use and improve the livelihoods of cocoyam farmers. Future research should explore the impact of these interventions on farm efficiency and overall agricultural output in the region.</p>	
<p>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</p>	<p>This manuscript demonstrates scientific robustness through its comprehensive analysis of the socio-economic characteristics and production challenges faced by cocoyam farmers in Enugu State. The use of a multi-stage sampling technique ensures that the sample is representative of the target population, while the employment of descriptive statistics and regression analysis provides a solid methodological foundation for the findings. Furthermore, the study effectively integrates data on input utilization and resource efficiency, highlighting key areas for improvement, which enhances its relevance to agricultural policy and practice. Overall, the manuscript contributes valuable insights that can inform targeted interventions aimed at optimizing cocoyam production and improving farmers' livelihoods.</p>	

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<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p> <p>-</p>	<ol style="list-style-type: none"> Recency: More recent studies (published in the last 10 years) should be included to ensure the findings are grounded in the latest research. Diversity of Sources: While the current references cover key topics like resource use, efficiency, and socio-economic determinants, there could be more variety in geographic locations or similar studies from other regions in Nigeria or Africa for comparison. Additionally, references exploring the effects of agricultural policies, modern technologies, and climate change on cocoyam production would provide a broader context. Please add more reference based on the above-stated key topics. 	
<p>Minor REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>The language quality of the article is generally suitable for scholarly communication but could benefit from some improvements to enhance clarity, precision, and readability. Here are a few areas where the language quality can be improved:</p> <ol style="list-style-type: none"> Clarity: Some sentences are overly complex or contain redundant information. Simplifying sentence structure and removing unnecessary repetition will improve clarity. For example, phrases like "R=1.30R = 1.30R=1.30" can be made concise. Consistency: There are occasional inconsistencies in tense and terminology (e.g., switching between past and future tense in the methodology). Ensuring consistent use of tense throughout the manuscript will make the writing more professional. Technical Detail: While technical terms are necessary, overly detailed numerical data in the discussion (e.g., multiple regression coefficients) may detract from readability. Streamlining these details or moving them to a table or appendix could improve the flow. Grammar and Syntax: Some sentences contain minor grammatical issues (e.g., subject-verb agreement, awkward phrasing) that need refinement. Careful proofreading can resolve these. <p>Overall Suggestions:</p> <ul style="list-style-type: none"> Simplify complex sentences for better readability. Ensure grammatical consistency (e.g., tenses). Eliminate redundant phrases and unnecessary technical detail in the main text. 	
<p>Optional/General comments</p>		

PART 2:

	<p>Reviewer's comment</p>	<p>Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</p>
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, kindly please write down the ethical issues here in details)</i></p>	

Reviewer Details:

<p>Name:</p>	<p>Maybelyn Lupas Pedroso</p>
<p>Department, University & Country</p>	<p>College of Agriculture, Agribusiness, Forestry, and Food Sciences, Cotabato Foundation College of Science and Technology, Philippines</p>