

REVIEWER'S REPORT

Manuscript No.: IJAR-55446

Title: PROFITABILITY AND DETERMINANTS OF SESAME PRODUCTION IN SOUTHERN CHAD: AN ANALYSIS FOR STRATEGIC PROMOTION

Recommendation:

Accept as it is

Accept after minor revision

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity			✓	
Significance			✓	

Reviewer Name: **ANAPANA GOPAL**

Reviewer's Comment for Publication.

General Comments

The manuscript provides a comprehensive and policy-relevant analysis of the profitability and determinants of sesame production in Southern Chad, focusing on Logone Occidental province. The topic is timely and strategically important, given sesame's growing role as Chad's second-largest agricultural export and its potential contribution to rural income diversification and resilience. The study is well grounded theoretically, employs a robust quantitative methodology, and is supported by a large and representative sample size. Overall, the paper demonstrates strong analytical depth and clear policy relevance. However, moderate improvements are required in presentation, conciseness, and consistency to enhance readability and alignment with journal standards.

Content and Originality

The manuscript shows **good originality** through its integrated micro-economic approach, combining profitability analysis, econometric identification of determinants, perceived constraints, and a comparative analysis of technology adopters versus non-adopters. While profitability and determinants of cash crop production have been widely studied, the focus on sesame in Southern Chad at the farm level fills a clear empirical gap. The explicit quantification of profitability gains associated with technology adoption (76% higher net margin) adds substantial value and strengthens the contribution to the literature on agricultural transformation and adoption economics in Sub-Saharan Africa.

Technical Quality

The technical quality of the study is **strong**.

- The sampling strategy is well justified and statistically sound, with clear use of Cochran's formula and proportional stratification.

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- Profitability indicators (net margin, BCR, IRR, labour productivity) are appropriately defined and calculated.
- The econometric model is correctly specified, and the choice of OLS is justified given the continuous dependent variable.
- Diagnostic tests (VIF, Breusch–Pagan, use of robust standard errors) are properly applied, enhancing confidence in the results.
- The adjusted R^2 (0.58) indicates good explanatory power.

Minor technical points to improve:

- Clarify whether prices and costs are averaged over the two seasons or pooled.
- Ensure consistency in variable notation (e.g., MN/NM, PBV/GVO).
- Briefly justify the exclusion of yield as an explicit explanatory variable in the regression, given its close relationship with profitability.

Language and Presentation

The manuscript is written in **clear academic English**, and arguments are generally well articulated. However, several issues should be addressed:

- Occasional long and dense paragraphs reduce readability, particularly in the Introduction and Discussion.
- Minor typographical and formatting inconsistencies are present (spacing, numbering, occasional line breaks).
- Some repetitive explanations of concepts (e.g., profitability indicators) could be shortened without loss of clarity.

A light professional language and style edit would substantially improve the overall presentation.

Structure and Organization

The paper is **well structured** and follows a logical flow:

- Introduction clearly defines the problem, objectives, and originality.
- Materials and Methods are detailed and transparent.
- Results are systematically presented with well-designed tables.
- Discussion effectively links findings to existing literature and theory.
- Conclusion provides clear policy and strategic implications.

However:

- The Introduction could be slightly condensed to reduce redundancy.
- Results and Discussion sections are occasionally intertwined; clearer separation of empirical results and interpretive discussion would improve clarity.
- Table numbering should be checked for consistency.

References and Citations

The reference list is **extensive, current, and highly relevant**, drawing from reputable international journals, institutional reports, and recent empirical studies. Citations are generally appropriate and well integrated into the analysis.

Minor improvements suggested:

- Ensure uniform formatting of references (journal names, italics, spacing).
- Check consistency between in-text citations and reference numbering.
- Standardize the presentation of institutional authors (FAO, World Bank, IPCC).

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Overall Recommendation

This manuscript represents a **high-quality empirical contribution** to the literature on agricultural profitability, technology adoption, and value-chain development in Sub-Saharan Africa. Its findings are robust and have clear implications for policy design and development interventions in Chad and similar contexts. With moderate revisions focused on clarity, conciseness, and formatting, the paper would be well suited for publication.

Final Decision

Accept with Minor Revisions