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ASSESSMENT OF GROUNDNUT PRODUCTION PRACTICES AND PROFITABILITY AMONG SMALLHOLDER FARMERS IN IMEKO AFON LOCAL GOVERNMENT AREA, OGUN STATE

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ABSTRACT

This study assessed the socio-economic characteristics, production practices, challenges of groundnut production, and profitability of groundnut farming among smallholder farmers in Imeko Afon Local Government Area of Ogun State, Nigeria. A total of 120 groundnut farmers were selected through a multistage sampling procedure. Data were gathered using structured questionnaires and personal interviews, and analyzed using descriptive statistics, gross margin, and return on investment (ROI) analyses. Results revealed that 75.8% of the respondents were male, mostly of the active age range of 40–59 years. Three-quarters of them (72.5%) practiced Mixed cropping, while 50.8% of farmers relied on both family and hired labor. More than half (59.2%) had access to farm inputs, and 54.2% used improved varieties, though access to irrigation (15%) and financial support (9.2%) remained low. The analysis showed a gross margin of ₦2,708,865.95, a net farm income of ₦2,610,115.95, and an ROI of 19.42%, indicating that groundnut production is profitable in the study area. However, farmers still contend with high input and transport costs, poor market prices, and pest and disease issues. This concludes that groundnut farming holds great potential for improving rural livelihoods and recommends policies that enhance access to inputs, affordable credit, extension services, and structured markets to sustain profitability and ensure food security.

Keywords: Productivity, profitability, groundnut production, smallholder farmers.

INTRODUCTION

Groundnuts served as an important export commodity, contributing to the economies of several countries (ICRISAT, 2018). However, groundnut farming faced challenges such as susceptibility to aflatoxin contamination, pests, and unstable market prices (Waliyar et al., 2015). Farmers often relied on improved farming practices, quality seeds, and pest control to manage these challenges (Olorunju et al., 2018. The crop played a major role in the livelihoods of smallholder farmers, particularly in rural areas. In Ogun State, groundnut cultivation was a key agricultural activity that supported both local economies and food security (Ogun State Ministry of Agriculture, 2022).

Imeko Local Government Area, in North-Western Ogun State, had favorable climatic and soil conditions that supported groundnut farming. Smallholder farmers, who formed the bulk of the agricultural workforce, relied heavily on groundnut cultivation for both income and household consumption (Adepoju, 2017). Despite its potential, farmers in Imeko encountered challenges such as limited access to modern inputs, inadequate extension services, poor infrastructure, and unstable market prices (Adepoju, 2017; Olawale et al., 2018).

Many also lacked the financial resources to adopt improved techniques (Ndjeunga et al., 2012). The economic impact of groundnut production on smallholder farmers in Imeko was multidimensional. It influenced household income, standard of living, and the ability to afford education, healthcare, and other basic needs (Musa & Babatunde, 2019). Examining these effects was essential for developing interventions that improved farmer livelihoods and promoted sustainable agriculture (Olorunju et al., 2018).

This study, therefore, evaluated the economic effects of groundnut production on smallholder farmers in Imeko Local Government Area. It looked at production costs, yields, market access, and socio-economic benefits, while identifying the key drivers of profitability in the system. The findings guided policy recommendations and practical strategies to enhance groundnut farming in the area.

METHOLOGY

Ogun State, located in southwestern Nigeria, Imeko Local Government Area lies in the northwest of the state, sharing boundaries with Oyo State to the North, Abeokuta North LGA to the east, Yewa North LGA to the south, and the Republic of Benin to the west. Its people were predominantly Yoruba of Ketu origin, but the area also included Ohoris, Eguns, and migrant Fulani nomads, along with other West Africans who settled because of its border location.

Sampling Procedure and Sample Size: Five villages were purposively choosing due to the high population of groundnut farmers in the areas. Random sampling was used to select twenty smallscale groundnut farmers in three villages and thirty farmers in the remaining two villages for a total of one hundred and twenty respondents. A total of one hundred and twenty (120) small-scale groundnut farmers formed the sample size.

The study relied mainly on primary data. Information was collected through structured questionnaires and interviews administered face-to-face with selected farmers across Imeko communities. Data were analyzed with descriptive statistics, gross margin analysis (GM), return on investment (ROI), and net farm income (NFI). The descriptive statistics, such as frequency distribution and percentage, were used to analyze socio-economic characteristics, production practices, and problems encountered by

the groundnut farmers. Gross margin analysis, return on investment, and net farm income were used to determine the profitability of the Groundnut business.

The mathematical notations for the analytical tools are given below:

Gross Margin = Total Revenue (TR) - Total Variable Costs (TVC)

Net Farm Income = Total Revenue (TR)- (Total Variable Costs (TVC) + Total Farm Income (TFI))

$$\text{Return on Investment} = \frac{\text{Net farm Income}}{\text{Total cost}}$$

Total revenue (TR) = Total income generated from the Groundnut business.

Total variable cost (TVC) = cost of land preparation, cost of planting, cost of seeds, cost of other inputs, cost of labor, cost of fertilizer, cost of transportation, cost of harvesting, cost of weeding

Total fixed cost (TFC) = Amount spent on land rent, Irrigation equipment, traditional barn, and airtight container.

Total cost (TC) = Addition of Total variable cost and Total fixed cost

RESULTS AND DISCUSSION

Socio-Economic Characteristics

Table 1 revealed that the majority of farmers were male, 75.8%. This showed that men were more actively engaged in groundnut production, although women still played a supportive role in farming and processing. Looking at ages, the majority (62.5%) were between 40 and 59 years old, averaging 50 years. This points to groundnut farming as mainly a middle-aged activity where they have the power and practical knowledge needed for farm work. Few younger farmers were seen, showing a reduced number of young people involved in growing groundnuts. This could be a future concern. Adamu et al. (2019) found similar results. Most people asked (84.2%) were married, 8.3% were single, and 7.5% were either separated or widowed. Groundnut farming seems to be a key way for families to make a living. This implies that groundnut farming serves as an important source of livelihood for households. In terms of education, 21.7% had no formal education, 36.7% attained primary education, 30% had secondary education, and 11.7% had tertiary education. Although literacy levels were modest, it shows that most farmers can read, write, and understand basic farming instructions, which could aid the adoption of improved practices. The average household size was 7 persons, with more than half 56.7% having between 5–8 members. Larger household sizes are beneficial in farming communities, as they provide family labour which reduces the cost of hiring. Regarding farming experience, 55% had 1–10 years of experience, 27.5% had 11–20 years, while only 5.8% had over 30 years. This indicates that most respondents are relatively new but active in farming, with some relying on farming as their primary livelihood. Most respondents 86.7% cultivated less than 2 hectares, confirming that groundnut production is mainly smallholder-based. This aligns with Nwajiuba and
Onyeneke (2021), who emphasized that small-scale farms dominate Nigerian agriculture. Despite groundnuts' importance, only 15.8% had access to extension services, which may hinder productivity and adoption of innovations. Similar findings were reported by Agwu et al. (2008).

Table 1: Socio-Economic Characteristics of Groundnut Smallholder Farmers (N=120)

Characteristics	Frequency	Percentage
Sex		
Male	91	75.8
Female	29	24.2
Age (years)		
20-29 years	6	5.0
30-39 years	13	10.8
40-49 years	34	28.3
50-59 years	41	34.2
60-69 years	19	15.8
70 years above	7	5.8
Mean = 50 years		
Marital Status		
Single	10	8.3
Married	101	84.2
Divorced	3	2.5
Widowed	6	5.0
Educational level		
No formal Education	26	21.7
Primary Education	44	36.7
Secondary Education	36	30.0
Tertiary Education	14	11.7
Household size		
1-4 household sizes	23	19.2
5-8 household size	68	56.7
9-12 household size	28	23.3
> 13 household sizes	1	0.8
Mean = 7 household size		
Years Of Farming Experience		
1-10 years	66	55.0
11-20 years	33	27.5
21-30 years	14	11.7
31-40 years	7	5.8
Main Source Income		
Farming	60	50.0
Trading	33	27.5

Salary	27	22.5
Membership in Farmers Association		
No	104	86.7
Yes	16	13.3
Farm Size		
< 2 hectares	104	86.7
2-5 hectares	6	5.0
> 5 hectares	10	8.3
Mean = **< 2 hectares**		
Access. Mkt		
Local Market	56	46.7
Regional Market	5	4.2
5	59	49.2
Access to Agricultural Extension Service		
No	101	84.2
Yes	19	15.8

Source: Field Survey, 2025

Production Practices of Groundnut Farmer

The analysis of production practices among groundnut farmers in Imeko Afon LGA revealed several important patterns. More than half, 52.5%, of the farmers cultivated groundnuts on land they owned, while 40. 8% used family land. Only 5% rented land, and 1. 1.7% depended on communal land. This indicates that access to land was not a major barrier in the study area, as most farmers owned or had family access to farmland. Similar findings were reported by Adegbite and Oladele (2017), who noted that land ownership encourages farmers' investment decisions and willingness to adopt improved practices. The majority, 72. 5% of respondents practiced mixed cropping, while 20. 8% grew only one crop, and just 6. 7% practiced intercropping. This is aligned with Eze and Nwachukwu (2018), who explained that mixed cropping is common among smallholders because it lowers production risks and enhances household food security. Half of the respondents- 50. 8%- combined family and hired labor, 26. 7% depended solely on family labor, and 22. 5% relied on hired labor. About 54. 2% of farmers cultivated improved groundnut varieties, while 45% of farmers cultivated improved groundnut varieties, while 45. 8% relied on local varieties. Although many farmers are planting better seeds, a significant number still use traditional types. Heavy reliance on rainfall exposes farmers to weather-related risks. This is consistent with Musa and Danjuma (2023), who discussed how limited access to irrigation methods poses a major obstacle to stable crop production for small farmers in Nigeria. Very few respondents, 9.2%, had access to credit, whereas 90. 8% reported having none. This suggests that the lack of credit remains a significant factor hindering production growth. This is in line with Bello et al. (2020), who observed that limited access to finance prevents farmers from purchasing new inputs and machinery, thus limiting their earnings. Nearly all farmers- 97. 5%- stored groundnuts in bags, but only a few used the sun for drying (0. 0.8%) or employed different storage methods (1. 1.7%). Relying solely on bags can lead to waste and negatively impact plant health. Similar findings were reported by Abdulrahman et al. (2018), who stated that outdated storage methods are very common among groundnut farmers in Nigeria, causing quality issues with the harvest.

Table 2: Production practices of groundnut farmers

Production practices	Frequency	Percentage
Type of land ownership		
Owned	63	52.5
Rented	6	5.0
Family Land	49	40.8
Communal Land	2	1.7
farming system practiced		
Sole Cropping	25	20.8
Mixed Cropping	87	72.5
Intercropping	8	6.7
Labor used		
Family Labor	32	26.7
Hired Labor	27	22.5
Both	61	50.8
Access to farm inputs		
No	49	40.8
Yes	71	59.2
Varieties of groundnut used		
No	55	45.8
Yes	65	54.2
Access to irrigation		
No	102	85.0
Yes	18	15.0
Financial support		
No	109	90.8
Yes	11	9.2
Post-harvest handling method used		
Sun drying	1	.8
Storage in bags	2	1.7
5	117	97.5

Challenges of Groundnut Production

The findings highlight multiple challenges limiting the productivity and profitability of groundnut farming in Imeko Afon LGA. An overwhelming 93.3% of farmers identified high input costs as a major constraint. The cost of seeds, fertilizers, and agrochemicals significantly reduces net income and discourages expansion. This aligns with Adedeji and Balogun (2025), who reported that rising input costs remain one of the greatest barriers to smallholder farmers in Southwest Nigeria. Nearly all respondents 97.5% reported poor and unstable market prices as a challenge. Price volatility reduces farmers' expected returns and creates income uncertainty. This result aligned with Oni and Yusuf (2017), who similarly observed that poor pricing structures in groundnut markets discourage farmers and reduce incentives for increased production. About 87.5% lacked access to credit facilities. Without affordable loans, most farmers cannot invest in improved technologies, inputs, or mechanization, thereby limiting productivity. This result also aligns with Musa and Danjuma (2023), who emphasized that inadequate credit is a persistent problem in rural Nigeria, restricting agricultural commercialization. A significant 85.8% reported poor access to extension services. This deprives farmers of vital technical knowledge on improved varieties, pest control, and post-harvest management. This result also aligns with Adepoju (2017), who found that limited extension support directly affects smallholders' adoption of innovations and sustainable farming practices. Almost all farmers 96.7% reported high transportation costs as a major barrier. Poor rural road networks increase the cost of moving produce to markets, thereby lowering profit margins. FAO (2021) also noted that high logistics costs remain a structural challenge for smallholder farmers in West Africa. A large share 92.5% cited pest and disease infestation as a serious problem. Groundnut crops are highly susceptible to aphids, rosette virus, and aflatoxin contamination, which reduce both yield and quality. This result aligns with Bello et al. (2020), who stressed that pests and diseases are key constraints undermining Nigeria's groundnut sector. Interestingly, only 43.3% reported climate change effects (e.g., erratic rainfall, prolonged droughts, or excessive rainfall) as a challenge, while 56.7% did not. This may be due to farmers perceiving more immediate challenges, such as costs and markets as pressing. This result is in line with Nonetheless, Olorunju et al. (2018) highlighted that climate variability significantly affects groundnut yields in Nigeria, even if farmers do not always prioritize it as their top constraint.

Table 3: Major Challenges Reported by Farmers

Constraint	Yes (%)	No (%)
High input cost	93.3	6.7
Poor market prices	97.5	2.5
Lack of credit	87.5	12.5
Lack of extension services	85.8	14.2
High transport cost	96.7	3.3
Pest & diseases	92.5	7.5
Climate change effects	43.3	56.7

Source: Field Survey, 2025

Profitability of Groundnut Production

The Gross Margin analysis, Net farm income, and Return on investment were used to determine the profitability analysis of the groundnut business.

Total revenue (TR) = ₦2,744,550.00
Total variable cost (TVC) = ₦ 35,684.05
Total fixed cost (TFC) = ₦ 98,750.00
Total cost (TC) = ₦ 134,434.05
Gross Margin = ₦2,744,550.00 - ₦ 35,684.05 = ₦2,708,865.95

Net Farm Income (NFI) = 2,610,115,95

The Groundnut business generates a gross margin of ₦2,708,865.95, and this implies that after covering the variable costs, the business has ₦2,708,865.95 left over to cover fixed costs (like TFC) and contribute to profit.

The return on investment (ROI) for groundnut production in the study area was estimated at 19.2%. This indicates that farmers earned about ₦0.19 as profit for every ₦1.00 invested in production. The result suggests that groundnut farming is profitable and economically worthwhile, although the level of profitability is modest. This agrees with the assertion of Olayemi and Adewunmi (2024) that any positive ROI demonstrates the economic viability of an enterprise. However, improving access to resources and adopting better management practices could further enhance profitability.

The findings indicate that groundnut farming is highly profitable in the study area, and this result is in line with. shows strong profitability. This report is similar to the findings of Olukosi and Erhabor (2005), who affirmed that groundnut is a viable crop for smallholder farmers in Nigeria **Table 4:**

Profitability Indicators of Groundnut Production

Variable	Value (₦)
Total Revenue (TR)	2,744,550.00
Total Variable Cost (TVC)	35,684.05
Total Fixed Cost (TFC)	98,750.00
Total Cost (TC)	134,434.05
Gross Margin (GM = TR – TVC)	2,708,865.95
Net Farm Income (NFI = TR – (TVC+TFC))	2,610,115.95
Return on Investment (ROI = NFI ÷ TC)	19.42

Source: Field Survey, 2025

CONCLUSION AND RECOMMENDATION

Groundnut farming in Imeko Afon was a profitable venture that contributed significantly to rural household income and food security. However, production remains small-scale and constrained by high input costs, poor market structures, limited access to credit, and inadequate extension support. Fixing these problems will make groundnut farming more productive, profitable, and helpful for rural growth.

Based on the findings, the following recommendations are made: Government and development partners should provide subsidized seeds, fertilizers, and agrochemicals to reduce production costs. Financial institutions should design credit schemes tailored to smallholder farmers at low interest rates. Extension Services: Extension agents should be strengthened to provide technical support on improved varieties, pest control, and post-harvest management. Rural road networks should be improved to reduce transportation costs and increase access to markets. Finally, Research institutions should develop and disseminate climate-resilient groundnut varieties to help farmers adapt to climate change.

REFERENCES

Adamu, A., Ibrahim, H., & Bello, S. (2019). Age structure and farming efficiency among crop farmers in Northern Nigeria. *Nigerian Journal of Rural Sociology, 19*(3), 14–22.

Adebayo, O., Lawal, A., & Adekunle, A. (2020). Gender and crop production in Nigeria: Evidence from smallholder farmers. *Journal of Agricultural Extension, 24*(2), 45–56.

Adedeji, O. A., & Balogun, T. Y. (2025). Smallholder farmers and the challenge of input costs: Evidence from Southwest Nigeria. *Journal of Agricultural Development Studies, 18*(2), 45–57.

Adegbite, D. A., & Oladele, O. I. (2017). Access to inputs and its impact on productivity of smallholder farmers in Nigeria. *Journal of Agricultural Extension, 21*(1), 94–104.

Adepoju, A. O. (2017). Impact of agricultural extension services on farmers' livelihoods in Nigeria. *International Journal of Agricultural Research, 12*(3), 125–136.

Agwu, A. E., Anyanwu, A. C., & Mendie, E. I. (2008). Adoption of improved agricultural technologies by smallholder farmers in Nigeria. *African Journal of Biotechnology, 7*(20), 3593–3600.

Bello, O. B., Ige, S. A., & Azeez, M. A. (2020). *Challenges in groundnut production and pest control measures in Nigeria: A review. Journal of Agricultural Research and Development, 20(2), 34–42.*

Eze, C. C., & Nwachukwu, I. N. (2018). Mixed cropping practices and household food security among rural farmers in Nigeria. *International Journal of Agricultural Economics, 3*(4), 101–109.

FAO. (2021). The state of food and agriculture in West Africa: Challenges of smallholder farmers. Food and Agriculture Organization of the United Nations.

International Crops Research Institute for the Semi-Arid Tropics (ICRISAT). (2018). *Groundnut improvement: Boosting farmer income through research. https://www.icrisat.org/groundnut-improvement*

Musa, A. Z., & Babatunde, R. O. (2019). *Financial Analysis of Groundnut Production among Smallholder Farmers in Nigeria. Journal of Agricultural Finance, 10(1), 89-102.*

Musa, H. I., & Danjuma, A. M. (2023). Constraints to smallholder farming and their implications for food security in Nigeria. *International Journal of Rural Development, 9*(1), 56–69.

Ndjeunga, J., Diallo, A. T., Amadou, A., & Waliyar, F. (2012). *Groundnut Seed Systems in West Africa. International Crops Research Institute for the Semi-Arid Tropics (ICRISAT).*

Nwajiuba, C., & Onyeneke, R. U. (2021). Smallholder agriculture and food security in Nigeria. *Food Policy, 102*, 102024.

Ogun State Ministry of Agriculture. (2022). *Annual agricultural performance report. Ogun State Government.*

Olayemi, S. K., & Adewunmi, B. (2024). Profitability analysis of groundnut production in semiarid regions of Nigeria. *African Journal of Agricultural Economics, 12*(4), 101–112.

Olorunju, P. E., Garga, D. I., & Echekwu, C. A. (2018). *Impact of Climate Change on Groundnut Production in Nigeria. Nigerian Journal of Agricultural Research, 14(2), 125-133.*

Olukosi, J. O., & Erhabor, P. O. (2005). *Introduction to Farm Management Economics: Principles and Applications*. Zaria: AGITAB Publishers.

Oni, T. O., & Yusuf, S. A. (2017). Market participation and income of groundnut farmers in Nigeria. *International Journal of Agricultural Economics, 2*(6), 156–163.

Waliyar, F., Umeh, V. C., Traore, A., Osiru, M., Ntare, B. R., Diarra, B., & Kodio, O. (2015). *Prevalence of Aflatoxin Contamination in Groundnut in West and Central Africa. Journal of Applied Microbiology, 118(3), 572-579.*

Yusuf, A., & Ibrahim, S. (2020). Socio-economic determinants of groundnut production among smallholder farmers in Nigeria. *Journal of Agricultural Research and Development, 9*(2), 33–41.