

DRIVERS OF FINANCIAL INCLUSION AMONG OIL PALM PRODUCERS IN YAKURR LOCAL GOVERNMENT AREA, CROSS RIVER STATE, NIGERIA

¹AJAH, E. A., ¹ASUQUO, I. A. AND ²ETENG, J. S.

¹Department of Agricultural Economics, Faculty of Agriculture, University of Calabar, Calabar, Nigeria.

²C/O Department of Agricultural Economics, Faculty of Agriculture, University of Calabar, Calabar, Nigeria.

Corresponding Author : ajahagom@yahoo.com

Abstract

This study focused on the drivers of Financial Inclusion among oil palm producers in Yakurr Local Government Area, Cross River State, Nigeria. The specific objectives were to assess the level of financial inclusion among producers; analyze its drivers and examine the challenges producers face in accessing financial services. A two-stage sampling procedure was used to select 138 respondents. Data were collected using a well-structured questionnaire and analyzed using descriptive statistics and binary logistic regression analysis. Findings revealed that there is a high level of financial inclusion among oil palm producers, since majority 115 (83.3%) own a bank account and can access formal financial services. Sex ($p < 0.05$), educational level ($p < 0.1$), income ($p < 0.01$), household size ($p < 0.01$), occupation ($p < 0.01$), were the major drivers of financial inclusion. However, high interest rate (12%), lack of access to financial services (18%), inadequate infrastructure (13%), insufficient collateral for loan (10%), limited access to financial institution (9.8%), were the major challenges to financial inclusion. The study therefore, recommends that stakeholders and the government should establish commercial bank branches in the study area, and ensure that oil palm producers access loan at concessionary interest rates.

Keywords: Financial inclusion, oil palm, drivers,

Introduction

Oil palm (*Elaeis Guinnesis*) product, palm oil is the most consumed edible oil globally, with extensive cultivation in West Africa, South East Asia, and South/Central America, with Indonesia and Malaysia being the largest producing countries (Afrinvest 2019; Aminu & Umoh 2021). Global production of oil palm increased from 1.2 million metric tonnes (MT) in 1964 to 73.3 million MT in 2018 with Indonesia (41.5 million MT) and Malaysia (39.5 million MT) accounting for 80.1% of global production between 2016 and 2018 (USDA 2018; Aminu & Umoh 2020). In Nigeria, palm trees are found predominantly in southern area especially in the wet rain forests and savannah belt. It also exists in the wet parts of North central Nigeria, in areas like Southern Kaduna, Kogi, Kwara, Benue, Niger, Plateau, Taraba and Nasarawa States as well as the Federal Capital Territory (Ayodele & Eshalomi 2010; Aminu & Umoh 2020). It is the world's second major source of vegetable oil, after soybean with world annual production of fresh fruit bunches approaching 100 million metric tons per year (Anyaocha, 2018, Aminu & Umoh 2020).

Moreso, Oil palm is one of the major cash crops in Nigeria, and its production contributes significantly to the country's agricultural sector and economy (Okoye & Ezejiofor, 2019). Yakurr LGA, located in Cross River State, has a substantial number of oil palm producers who play an

important role in the local economy. Despite their importance, many oil palm producers in Yakurr LGA face challenges in accessing formal financial services, which hampers their ability to grow and expand their businesses (Ilesanmi & Babatunde, 2018).

Moreso, financial inclusion has assumed increasing recognition across the globe among policy makers, researchers and development-oriented agencies. Its importance is derived from the promise it holds as a tool for economic development, particularly in the areas of poverty reduction, employment generation, wealth creation and improving welfare and general standard of living (Central Bank of Nigeria - CBN, 2015). It refers to the provision of financial services to individuals and businesses who are traditionally excluded from the formal banking system. It encompasses various dimensions, including access to banking services, credit facilities, insurance, and digital financial services (Aderinola & Adereti, 2017)

Previous studies on financial inclusion in Nigeria have focused mainly on the determinants of access to, and usage of bank accounts and loans for other enterprises (Odior & Banuso, 2012; Sanusi, 2010). However, little research attention has been paid specifically to the drivers of financial inclusion among oil palm producers. Understanding these drivers is important to ensure that initiatives aimed at deepening financial inclusion among this group are well-targeted and effective. Based on the above the specific objectives were to;

- i. access the level of financial inclusion among oil palm producers
- ii. analyze the drivers of financial inclusion among oil palm producers
- iii. examine the challenges faced by oil palm producers in accessing financial services in the study area.

Methodology

Study Area

The study was conducted in Yakurr Local Government Area of Cross River State. It is located between Latitude 5°40'N - 6°10'N and Longitude 8°21'E - 8°50'E. of the equator. It has a large landmass with an area of 670 km² and a population of 196,450 at the 2006 census (Nigerian Population Commission, 2006). The **2022 Projection is** approximately 298,900, using a 2.7% annual growth rate.

It has its boundary with Abi to the West, Obubra to the North, Biase to the South, and Akamkpa Local Government Area to the East. The dominant language is Yakurr. The people of the area are largely farmers (Effiong and Asikong, 2013). The crops grown include yam, cocoyam, cassava, plantain, beans, maize and pumpkin. Cash crops include: oil palm, cocoa, cashew, and rubber. The area is near the rainforest belts and so the vegetation is that of tropical rainforest. The area consists of small and medium scale farmers who predominantly cultivate cassava and yam.

Population Size

The population of the study comprised of all oil palm producers in Yakurr LGA.

Sampling Procedure and Sample Size

A two-stage sampling technique was employed to select the respondents for this study. The first stage was purposive selection of 7 out of 13 wards in the LGA due to the predominance of palm oil production in the wards. In the second stage, 20 palm oil producers were randomly selected

from each of the wards, making a total of 140 respondents used for the study. Only 138 questionnaire were successfully retrieved and used for the study.

Method of Data analysis and Data Collection

Data were obtained using a structured questionnaire and analyzed using both descriptive and inferential statistics. Objectives 1, and 3 were analyzed using descriptive statistical tools, such as mean, frequency distribution, and percentages. While objective 2 was analyzed using binary logistic regression model as the statistical estimation tool for analyzing the drivers of financial inclusion among oil palm producers in the study area.

Model Specification

The logit model is expressed as

$$L_1 = \ln(p/i-p) = Z_1 = B_0 + B_1X_1 + B_2X_2 + \dots + B_nX_n$$

Where;

L = Logit

P = Probability of access to financial services for estimation purpose, we write equation 1 as;

$$L_1 = \ln(p/i-p) = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + B_6X_6 + B_7X_7 + B_8X_8 + B_9X_9 + B_{10}X_{10} + e$$

Where;

L₁ = access to financial services = 1

no access to financial services = 0

B₀ = intercept;

B₁ = B₁₀ = coefficient;

e = error.

The variables were estimated as;

Y = dependent/outcome variables ($y = 1/x$);

P(Bor = 1/ x) usage Dummy: 1 = Borrows money; 0 = otherwise

X₁ = Age (Years);

X₂ = Gender (male = 1 or female = 0);

X₃ = Educational level (Number of years);

X₄ = Household income (Naira);

X₅ = Household size (Number of individuals);

X₆ = Marital status = 1; 0 = Otherwise

X₇ = Farming experience (Number of years);

X₈ = Land ownership (owning a farm land or renting) = 1; 0 = Otherwise

X₉ = primary occupation as Oil Palm farmer = 1; 0 = Otherwise

X₁₀ = Distance to financial institutions (kilometers);

e = error term.

Results and Discussion

Socio-economic characteristics

The results revealed that the mean age of respondents was 43.6 years indicating that the majority of these farmers were middle age, very active and full of energy to undertake the tedious nature of oil palm, which is in line with Nwaiwu *et al.*, (2024) who found that the mean age of farmers was 41 years. Majority (64.5%) were male, pointing to the male dominance of oil palm production in the study area. This is in line with Okorie (2018) who found that most youths involved in agriculture were male. Majority of the respondents (47.1%) were married with a

mean household size of 6 persons and half of them (50.7%) have a household of 6-10 persons. This is consistent with Ajeigbe *et al.*, (2013) who recorded household sizes of 5-7 persons.

The mean years spent in school was 11 years, indicating that majority of the oil palm farmers in the study area could read and write, and therefore, can have a positive effect on the adoption of agricultural technology and finance. This agrees with Ugochukwu and Ekejiuba(2013) who found that majority of farmers attained secondary or post-secondary education.

The result further revealed that, 55.8% of the respondents have farming as their major occupation, and 45.0% of them have been in the business for 11-20 years with a mean farming experience of 14.3 years which is in line with Nwaiwu *et al.*, (2013) who found that over 50% of farmers had 6-15 years farming experience.

The result showed that the mean income was 57,384. The majority of respondents (15.9%) reported annual income ranging from 1000 to 20,000 naira. Smaller proportional reported income with (5.7%) income above 80,000 naira. This indicates that a significant portion of the respondents had moderate income levels. This appreciates work done by Fatoba (2011) in Osun State which placed typical annual income for small holder plantain farmers between N100,000 to N3000,000. The findings also showed that the mean distance to the nearest source of financial services was 10. 4km.

Level of Financial Inclusion

Based on the three dimensions of financial inclusion, the level indicates the number of usage of the three dimensions of financial inclusion. Table 2 shows that majority of the respondents (83.3%) owned an account with the bank which indicates that they are highly financially inclusive. The result equally revealed that (42.0%) of the oil palm farmers have borrowed from the bank showing a low level of usage, while (58.0%) have not been unconnected to the difficulties encountered by farmers in accessing loans. The result further revealed that (61.6%) have savings with the banks indicating a high level of savings culture among oil palm farmers while the remaining (38.4%) have no savings with the banks, this is a pointer to the low level of farmers that have accessed loan in the study area.

Drivers of Financial Inclusion among Oil Palm Farmers

Table 3 below presents the result of the regression (logistic) model for the determinants of financial inclusion. Each coefficient is a partial shape coefficient that measures the change in the estimated logit for a unit change in the values of a given regressor (holding other regressors constant) . Thus, educational level of 0.157 means that with other variables held constant, that if educational level increases by a unit on the average, the estimated logit increases above 0.157 units ($0.157 \times 100 = 15.7\%$, appro. 16%). Suggesting a positive relationship between educational level and financial inclusion. Conversely, annual income with a coefficient of 1.080 means that with other variables held constant, if the income increases by a unit (N), on the average, the estimated logit increases by about 1.080 units ($1.080 \times 100 = 108\%$), suggesting a positive relationship between income and financial inclusion.

Table 1: Socio-Economic Characteristics of Oil Palm Farmers

Variable	Frequency (n-138)	Percentage	Mean
Age:			
20-29	5	5.0	
30-39	59	42.0	
40-49	38	27.0	
50-59	16	12.0	
60 and above	20	14.0	43.6
Sex:			
Male	89	64.5	
Female	49	35.5	
Educational level:			
No education	14	10.1	
Primary education	33	23.9	
Secondary education	42	30.4	
Tertiary education	49	35.5	11
Household size:			
1-5	70	39.9	
6-10	75	50.7	
11-15	13	9.4	6
Marital status:			
Single	46	33.3	
Married	65	47.1	
Widowed/divorced	27	19.6	
Farming experience:			
1-10	51	37.0	
11-20	62	45.0	
21-30	16	12.0	
31 and above	9	6.0	14.3
Occupation			
Farming	77	55.8	
Others	61	44.2	
Distance			
1-10	86	62.3	
11-20	40	29.0	
21-30	8	5.8	
31 and above	4	2.9	10.4
Income			
1,000-20,000	22	15.9	
21,000-40,000	31	22.5	
41,000-60,000	55	25.4	
61,000-80,000	28	20.3	
81,000 and above	22	15.9	57,384

Field survey, 2024

Table 2: Level of financial inclusion among oil palm farmers

Form	Frequency (n=138)	Percentage
Ownership of account		
Yes	115	83.3
No	23	16.7
Accessible loan		
Yes	58	42.0
No	80	58.0
Saving with bank		
Yes	85	61.6
No	58	38.4

Field survey, 2024

Looking at the results, educational level, income, household size, main occupation and sex are the microeconomic factors influencing financial inclusion among oil palm farmers in Yakurr Local Government Area. These variables are significant and have the expected signs. All other things being equal, the result points to the fact that individuals with advanced educational level (secondary and tertiary), increase the probability of financial inclusion by (16%) compared to those with no education or primary education. This is because an individual who does not have many years of education is less able to understand and use financial products.

Thus, household size with coefficient of absolute value $-.489$ is negative, showing that if household size decreases below $-.489$ ($-.489 \times 100 = 49\%$) showing that there is a negative relationship between household size and financial inclusion. The same explanation holds for main occupation.

Nagelkerke R^2 from the result is 0.628 , this is of secondary importance in binary or dichotomous regression models such as logit models. What matters is the expected signs of the regression coefficient and their statistical and/or practical significance (Gujarati, 2007).

Hence, income, household size and major occupation were significant at 1%, while sex and educational level were significant at 10%. To test the null hypothesis that all the coefficients are simultaneously equal to zero, the likelihood ratio (LR) statistic is new. Given the null hypothesis, the LR statistic follows the chi-square (χ^2) distribution with degree of freedom equal to the number of explanatory variables, ten (10) in this case. Since the LR at 5% level of significance is 20.483 , we reject the null hypothesis and conclude that, income, educational level, household size, major occupation and sex are significantly different from zero.

Table 3: Logistic regression on drivers of financial inclusion among oil palm farmers in the study area

Variable	Coefficient(B)	SE	Z-statistics	Sign.	Expt(B)
X ₁ = Age	-.039	.045	-0.866	.384	.961
X ₂ = Sex	-1.684	.872	-1.931	.054**	.186
X ₃ = Edu. Level	.157	.0888	1.784	.072*	1.170
X ₄ = Income	1.080	.570	3.597	.006***	1.013
X ₅ = Household size	-.489	-.196	2.495	.013***	.613
X ₆ = Marital status	-.055	.396	-0.139	.890	.947
X ₇ = Farming experience	.017	.056	0.304	.754	1.018
X ₈ = Landownership	-.395	.856	-0.461	.644	.674
X ₉ = Occupation	-3.205	1.245	-2.574	.010***	.041
X ₁₀ = Distance to bank	.027	.027	1.000	.483	1.027
Constant	4.437	2.233	1.987	.047	84.549

Nagelkerket R² .628 = 62.8%

LR statistics (10^{df}) = 20.483

*** - Significant @ 1%, ** - Significant @ 5%, * - Significant at 10%

Field survey, 2024.

Challenges faced by oil palm producers in accessing financial services

Table 4: Challenges to financial inclusion among oil palm farmers in the study area

Types of problem	Frequency	Percentage (%)
Lack of access to financially services	137	18
Inadequate infrastructure	98	13
High interest rate	90	12
Insufficient collateral for loan	76	10
Limited access to financial institution	74	9.8
Complex loan application and condition for procedure	65	9
Lack of awareness	56	7.45
Bureaucratic procedure	54	7
Culture and religion belief	52	7
Unstable economic condition	49	6

Field survey, 2024.

Total Exceeded 138 Due To Multiple Responses

Conclusion and Recommendations

The study investigated the drivers of financial inclusion among oil palm producers in Yakurr Local Government Area, Cross River State, Nigeria. The study found that Sex, educational level, household size, farming as main occupation and income were the main factors that determined farmer's financial inclusiveness in the study area. Also, high interest rate, lack of access to formal financial services, bad roads, and lack of access to mobile phone were the major challenges the oil palm producers faced in accessing financial services. Based on the findings reached, it was recommended that;

1. The government ensures farmers are schooled by providing adult literacy programs.
2. Government should regulate interest rates of commercial banks or make available Agricultural financial institutions like; Bank of Agriculture (BoA), in rural areas so as to provide loans to farmers at concessionary rates.
3. Government should fix bad roads to facilitate easy and quick movement to nearby financial institutions.
4. The establishment of branches of commercial banks in the study area is also recommended to reduce the time and money spent to access financial services

References

- Afrinvest. (2019). Nigeria oilseeds market trends in focus. [online] Available at: <https://afrinvest.com/downloads/NigeriaOilseedsMarketTrendsInFocus.pdf> [Accessed 20 Oct. 2022].
- Aminu, F. O. and Umoh, J. (2020). Factors Influencing Economic Performance of Palm Oil Producers in Akwa Ibom State, Nigeria. *International Journal of Oil Palm*, 3(3), 69-77.
- Anyaocha, K.E, Sakrabani, R., Patchigolla, K. and Mouazen, A. M.(2018)Evaluating oil palm fresh fruit bunch processing in Nigeria. *Waste Management & Research* 36(3), 236–246
- Ayodele, T. and Eshalomi M. O. (2010). African case study: palm oil and Economic development in Nigeria and Ghana. Washington DC (US): The World Bank.
- Central Bank of Nigeria (2015). National Financial Inclusion Strategy Update (2012-2020). Abuja, Nigeria: Central Bank of Nigeria.
- Central Bank of Nigeria-CBN. (2015), Financial Inclusion. Available from: <https://www.cbn.gov.ng/devin/ininc.asp>.
- Effiong, E. O. and Asikong, B. E. (2013). An integrated farming system model for agricultural development in the rural areas of Cross River State, Nigeria. *International Journal of Agriculture and Rural Development*, 16(2), 1376-1381.
- Ilesanmi, O. A. and Babatunde, R. O. (2018). Determinants of access to credit by oil palm farmers in south-western Nigeria. *Journal of Development and Agricultural Economics*, 10(8), 224-231.
- Okoye, B. C. and Ezejiolor, R. A. (2019). Oil palm production in Nigeria: Prospects and challenges. *Global Journal of Agricultural Research*, 7(1), 1-8.
- Sanusi, R. A. (2010). Determinants of demand for agricultural credit among small scale farmers in Oyo State Nigeria. *Journal of Social Sciences*, 22(2), 115-119.
- Ugochukwu, S. C. and Ekejiuba, F. C. (2013). Effect of socioeconomic characteristics on access to agricultural credit by smallholder oil palm farmers in Imo State, Nigeria. *American Journal of Experimental Agriculture*, 3(4), 1008-1019.
- USDA. (2012). United State Department of Agriculture report. US. USDA. 2018. United States Department of Agriculture (USDA), Afrinvest Research. US.