



Poverty Analysis of Maize Farming Households in Oyo State, Nigeria

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ARTICLE INFO

Article No.:040219062

Type: Research

DOI: 10.15580/GJAS.2019.2.040219063

Submitted: 02/04/2019

Accepted: 05/04/2019

Published: 16/05/2019

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Keywords: Maize Farmers;
Poverty; Probit Regression;
Foster-Greer-Thorbecke index

ABSTRACT

One of the problems cited as constraining the production of maize in Nigeria is stagnant production technology among Nigerian farming community, majority of who are small-scale producers. Thus, this study examined the poverty status as well as analysed the factors affecting poverty profile of maize farming households in Oyo State. Primary data were obtained from 180 maize farmers by multistage random sampling with the aid of well-structured questionnaire and interview schedule. The data were analysed using descriptive statistics, Foster-Greer Thorbecke index and probit regression model. The results of descriptive statistics revealed that 68.3% of maize farmers were male with majority (56.1%) between 41 and 60 years of age who were married (86.6%) with relatively large household members. The results also showed that 76.1% of them used their personal land either acquired by inheritance or bought and 79.9% had formal education. The results of FGT analysis showed that poverty incidence was 35.2%, poverty depth was 16.1% and poverty severity was 10.9%. Meanwhile, probit regression model results revealed that household size, farmer's expenditure, age, gender, marital status and improved technology were the factors affecting the poverty profile of the maize farming households. The study therefore recommended that farmers in the study area could reduce their poverty depth by controlling the number of child births, increase revenue generated from maize farm and adoption of new/improved technology.

1.0. INTRODUCTION

Agricultural sectors in less developed countries like Nigeria are widely considered to play a vital role in the eradication of poverty. This may be true of Nigeria where a larger proportion of the population lives in the rural areas and depends mainly on primary production (Oladeebo and Ezekiel, 2006). Higher agricultural productivity affects family incomes and nutrition, which in turn supports labour productivity through better health and well-being of the people. Poor workers'

health on the other hand will result in the loss of working days or reduces their working capacity, leading to lower output (Croppenstedt and Muller, 2000).

Poverty on the other hand is likely to affect the capacity of the farm households to avail themselves of better health and education facilities; to purchase inputs at the proper time; to acquire other farm assets; to adopt new technologies and resources etc. The low level of these factors in turn affects agricultural productivity adversely. From these, poverty is not only

an effect but also a cause of low agricultural productivity (Oladeebo, 2012).

Recently, production of maize in Nigeria has been declining due to low input usage. For example, in 2000 production was 6491MT as compared to 6515MT in 1999. Rapid population growth and increased pressure on land have led to a reduction in fallow periods to the threshold needed for sustainability (FAO, 2002). To compound the situation, essential inputs such as fertilizer, herbicides and pesticides were often scarce and costly at a time when economic reforms have compelled reductions in farm inputs subsidies. Maize is a heavy feeder that requires sustainable amount of nutrients uptake. In the savannah region, the enormous potentials for maize production can be realised only with the use of high levels of fertilizer, improved seeds, hectareage expansion and adequate weed control. With adequate supply of these inputs and the provision of adequate storage facilities, the rapid expansion of maize could be sustained

In Nigeria, Maize is generally believed to be cultivated by small scaled farmers with low resources (Ezebuio *et al.*, 2008). As a result, it also plays a major role in the quest to alleviate the food crisis thereby alleviating poverty. Nigeria remains a country with high levels of poverty. The last official estimate from 2009-10, was 53.5% based on the international poverty line of \$1.90 per person per day (2011PPP). By 2016, the poverty rate is projected to have fallen to 48.4%, or 90million persons. However, due to slow growth, the poverty has been on increasing trend (World Bank, 2018). Poverty is a spate afflicting people all over the world and it is considered one of the symptoms or manifestations of underdevelopment (Amao *et al.*, 2013). "Poverty is a situation where people have unreasonably low living standard conditions when compared with others; cannot afford to buy necessities, and experience real deprivation and hardship in everyday life" (McClelland, 2000). Poverty is the main cause of hunger and malnutrition, which are aggravated by rapid population growth, policy inadequacies and inconsistencies or weak administrative capabilities, unhealthy food storage and processing techniques. Poverty in rural communities is related to poor physical facilities, food insecurity, obsolete agricultural practices, poor nutritional value, little access to savings and credit, general inability to educate children due to high cost, irregular water supply and electricity as well as the inability to cloth oneself (Amao *et al.*, 2013). Despite the economic importance of maize to the teeming populace in Nigeria, it has not been produced to meet food and industrial needs of the country and this could be attributed to low productivity from maize farms or that farmers have not adopted improved technologies for maize production (Onuk *et al.*, 2010). Additionally, other factors like price fluctuation, diseases and pests, poor storage facilities have been associated with low maize production in the country (Ojo, 2003). Furthermore, the extent to which poverty and productivity relates to a shortfall in maize demand and supply in Nigeria is not clearly understood and at the same time, the impact of factors that affect the

productivity and poverty level of the maize farming households. When rural farmers lack access to knowledge and information that would help them achieve maximum agricultural productivity, they are not only grope in the dark but are driven to the urban centres in search of formal employment as the only option for survival (Munyua, 2000). Thus, this study therefore carried out poverty profile of maize farming households in Oyo State and relates poverty status with farmers' productivity in Oyo State, Nigeria.

2.0. Empirical and Literature Reviews

Aguibiade and Oke (2019) examined the poverty status and factors affecting poverty profile of cassava farming households in Osun State. Foster-Greer-Thorbecke index and Tobit regression model was used. The results of FGT analysis showed that poverty incidence was 28.9%, poverty depth was 5.3% and poverty severity was 1.5%. Meanwhile, Tobit regression model results revealed that household size, farming experience and revenue generated from cassava farms were factors affecting the poverty profile of the farming households. The study therefore recommended that farmers in the study area could reduce their poverty depth by controlling the number of child births and increase revenue generated from cassava farm. Omoregbee *et al.*, (2013) examined analysis of the effects of farmers' characteristics on poverty status in Delta State using Foster, Greer and Thorbecke model and Logit regression analysis. The result of the Logit regression analysis showed that sex (0.574), educational status (0.249) and farm size (-0.339) had significant influence on poverty status of respondents. It was concluded that poverty status among farmers in Delta south senatorial district is high with gender issues, poor educational levels and small farm sizes accounting for the more for the high poverty status. It was recommended that in developing poverty reduction programmes in the area, sex, educational attainment and farm size of the people should be critically considered. Adepoju (2012) investigated the dynamics of poverty in rural South West Nigeria (SWN) using regional panel data. Results showed that 49.5 percent of the households were non-poor while 28.2 percent were poor in both periods respectively. 22.3 percent of the households moved in and out of poverty between the two periods indicating a higher level of chronic poverty in rural South Western Nigeria. However, of the transient poor, while 6.8 percent exited poverty, a larger proportion (15.5 percent) moved into poverty. The study also revealed an overlap between the determinants of chronic and transient poverty as vulnerability aggravated both chronic and transient poverty in the region by increasing the odds of remaining and moving into poverty of poor and non-poor households respectively. Oleksiy and Cem (2008) in their study showed that the factors which make households move out of poverty are different from the factors which make them fall back into poverty. The study used panel data analysis for Tajikistan and showed that, in such a transitory

economy, the mobility of households from and into poverty is quite high.

Bigsten and Shimeles (2003) and Swanepoel(2005) analyzed the dynamics of poverty using spells and component approach for ERHS 1994-1997. Results revealed that while most households in the rural areas were transiently poor, factors such as age of the head of the household, dependency ratio within the household greatly affected the odds of moving into poverty. Similarly, the review work by Baulch and Hoddinott (2000) on ten developing countries revealed that poverty in developing countries is more of transient than being chronic.

From the above literatures, it is evident that the class of decomposable poverty measures of FGT was used in measuring poverty and the decomposition of poverty was done using either the spells or the component approach. In this study, the much simpler “spells approach” was adopted in decomposing poverty into its chronic and transient components (McKay and Lawson, 2003) and the factors associated with total, chronic and transient poverty were examined using the probit and multinomial logistic regression method respectively. In addition, in the case of Africa, there are few studies of poverty dynamics despite the rampant poverty in the region. This may be due to the demanding nature of the data in analyzing the dynamics of poverty. Only few countries (Cote d’Ivoire, Ethiopia, Egypt, South Africa, Uganda, Kenya, Ghana and Zimbabwe) to the best of my knowledge have household-level panel data. Therefore, this study will be quite an immeasurable contribution to the body of knowledge on poverty dynamics in Nigeria and Africa as a whole.

3.0. METHODOLOGY

3.1. Study Area: The study was carried out in Lagelu local government area, Ibadan, Oyo State, Nigeria. It is one of the local governments created by the Federal Military Government of Nigeria on 27th September, 1991. Its headquarters is Iyana-Offa. It has an area of 338km² and a population of 147, 957 at the 2006 census (NIPOST, 2009). This geographical location is one of the local governments in Ibadan municipal under the Ibadan/Ibarapa agricultural zones, with

$$P_{ai} = \frac{1}{n} \sum_{i=1}^q \left(\frac{z-y}{z}\right)^\alpha \dots\dots\dots (1)$$

$$\alpha = 0, \quad P_0 = \frac{1}{n} \sum_{i=0}^n \left(\frac{z-y}{z}\right)^0 = \frac{q}{n} \implies \text{Poverty incidence or headcount} \dots\dots\dots (2)$$

$$\alpha = 1, \quad P_1 = \frac{1}{n} \sum_{i=0}^n \left(\frac{z-y}{z}\right)^1 \implies \text{Poverty gap or depth} \dots\dots\dots (3)$$

$$\alpha = 2, \quad P_2 = \frac{1}{n} \sum_{i=0}^n \left(\frac{z-y}{z}\right)^2 \implies \text{Poverty severity} \dots\dots\dots (4)$$

Where;

- n** = number of maize farmers
- q** = the number of poor maize farmers
- z** = poverty line
- y** = the per capita expenditure (PCE) of the *i*_{th} household and
- α** = degree of poverty aversion.

Akinyele, Egbeda, OnaAra, Ibarapa north, Ibarapa central and Ibarapa east, (Adeola and Ayoade, 2009) under the same zone. The vegetation is a derived Savannah zone and a low land rain-forest area. The zone experience both wet and dry season annually. The main occupation of the inhabitants is farming, arable crops cultivating in the zone include Maize, melon, soy-bean, cassava, cowpea, and yam, vegetables while tree crops are cocoa, oil palm and cashew, (Adeola and Ayoade, 2009) and they also engaged in trading and few others are in the civil service.

3.2. Sampling Technique:A Multi Stage Sampling technique was used which involves random selection of 5 wards out of 14 wards based on which of the villages that major most in Maize production. Thirty (30) Maize farmers’ each from the 5 wards were randomly chosen. Sample sizes of 142 respondents out of 150 copies of questionnaire administered were finally recovered for the study.

3.3. Data Collection Instrument: Data collection from the respondents was mainly through structured questionnaire. Information such as socio economic characteristics of the farmers, expenditure, information about their farm operation like farm size, average yield, ownership of the land, access to extension services, quantity of fertilizer used, quantity of Maize seed planted, Membership of cooperative associations amongst others were asked.

3.4. Methods of Data Analysis

Foster-Greer-Thorbecke's (FGT) Poverty Index 1984 : According to Omonona 2009, there are a lot of methods for aggregating the poverty of a group; this study used the Foster-Greer-Thorbecke's (FGT) weighted poverty index, among other things, to its additive decomposability into sub-groups. This FGT weighted poverty measure, otherwise called the Pa measure, was used to obtain the incidence, depth and severity of poverty by sex, age, marital status, household size and education. The FGT measure for the *i*th subgroup (Pai) is given below;

In this study, total per capita expenditure was used as a measure of the standard of living of the farmers. Total expenditure is the sum of cash expenditure on consumption of goods and services, the value of own production of goods and services, transfers and remittances received and goods received

on barter transactions. Though consumption expenditure as a proxy for poverty measurement may not fully express the households' command over goods and services, it is however the most widely used in determining poverty line particularly because while income reflects more of current well-being, consumption is a better reflection of the long term economic status. It also makes measurement easier in households where there is a considerable level of own produced goods and services as well as free commodities.

Poverty line is the value of income or consumption expenditure necessary for a minimum standard of living. The 2/3 mean per capita expenditure was referred to as the moderate poverty line while its 1/3 is referred to as the core poverty line. This study made use of moderate poverty line because it closely approximates the \$1/day international poverty line in the 2004 NLSS and also in the 1996 NCS as reported by the NBS (2007). Farmers were therefore categorized as poor and non-poor.

$$\text{Per capital expenditure} = \frac{\text{Total household monthly expenditure}}{\text{Household size}} \dots\dots\dots (5)$$

$$\text{Mean per capital household expenditure} = \frac{\text{Total per capita household expenditure}}{\text{Total number of households}} \dots\dots\dots (6)$$

Any household whose expenditure falls below the moderate poverty line (2/3 mean per capita household expenditure) is regarded as being poor while those above it are regarded as non-poor.

Probit Model: A Probit model is a type of regression where the dependent variable can only take two values. A Probit model is a popular specification for an ordinal or a binary response model. This model was used to examine the relationship between maize farmers' productivity and their poverty status.

$$Z_i = \text{Prob}(Y_i = 1) = \text{Prob}(\sum \beta_j X_{ij} + \varepsilon_i > 0) \quad (7)$$

$$Z_i = f(X_i \beta) (0 \text{ or } 1) \quad (8)$$

Z_i = poverty status (0 = non poor household, 1 otherwise)
 β_i = coefficients of explanatory variables.

Where $X_1 - X_{12}$ are specified as below

- X_1 = age of farmer (years)
- X_2 = sex of farmer (0 for female, 1 if otherwise)
- X_3 = farmer's education (0 for non-formal, 1 if otherwise)
- X_4 = marital status of farmer (0 for Single, 1 if otherwise)
- X_5 = household size of the farmer
- X_6 = farm size in hectares
- X_7 = farming experience (0 for yes, 1 if otherwise)
- X_8 = land ownership (0 for owned, 1 if otherwise)
- X_9 = access to improved technology (0 for yes, 1 if otherwise)
- X_{10} = farmer's association (0 for yes, 1 if otherwise)
- X_{11} = maize output per kg
- X_{12} = expenditure in Naira

4.0. RESULTS AND DISCUSSION

4.1. Socio-economic Characteristics of the Respondents

Table 1 below shows the socio-economic characteristics of the respondents. About 56.1% of the

farmers fall between age range 41-60years which has the highest percentage while those in the age range 21-40years had the least percentage of 16.9% which means that the age range between 41-60years is the dominant age of farmers in the study area. The mean age of all the respondents was 52 years, minimum 25years and maximum 80years, these implies that majority of these farmers are still in their active years and productive age. The gender distribution shows that 68.3% of the farmers were male while 31.7% of the farmers were females. It shows that majority of the farmers are men and shows that female participation is becoming significant in farming. The distribution of the households by marital status shows that 4.9% of the respondents were single, while the remaining 95.1% were married out of which 86.6% were married. The mean value of the household size is approximately 7, while the highest number is 16 and the lowest is 1 member. The education distribution of the respondents shows that 21.1% of the respondents had no formal educational while only 3.5% had post -secondary education, while 79.9% of the respondents have one of primary, secondary and tertiary education. This shows that respondents in the study are not illiterate, the high education level can increase the productivity of the farmers because it has been shown that farmers with high education level will be able to adopt new technologies in production. The farming experience revealed that about 62.6% of the respondents have experience of 1-20years, 27.5% with 21-40years experience while only 9.9% of the farmers have experience of about 41years and above. This shows that farmers in the study area are very experienced in their production and can make many observations in their productivity level. The farm size distribution of the respondents showed that 48.2% of the respondents cultivated less than 1 hectare while the remaining 51.8% cultivated above 1 hectare of farmland. The average farmland cultivated is approximately 1.2 hectares (3 acres). The small farm size cultivated can result in the yield/output being small thereby affecting the level of productivity and also their income. On land ownership, 76% of the respondents own the land used for farming while 23.9% pay for the land used in farming. This can also have effect on their productivity level as cost is incurred in paying for land rents, which

could have been spent on their farming activity. Land owners can also use their lands as collateral for credit facilities. About 80.3% of the respondents have farming activities as their primary occupation, 7% are into trading, 5.6% are civil servant while 7% are also artisans. Also, it was revealed that 62% of the respondents belong to one farmer's association while

38% of the respondents do not belong to any farmer's association. One of the benefits of belonging to farmer's association is that information on improved technology is easily disseminated among them. It could also serve as a forum where farmers borrow money.

Table 1: Socio-economic characteristics of the respondents

Gender	Frequency	Percentage (%)
Female	45	31.7
Male	97	68.3
Age		
21-40	24	16.9
41-60	80	56.1
Above 60	38	27.0
Marital Status		
Single	07	4.9
Married	123	86.6
Divorced	03	2.1
Separated	01	0.7
Widowed	08	5.6
Household Size		
1-6	74	52.1
7-12	61	42.9
13 and above	07	5.0
Educational Status		
No formal Education	30	21.1
Primary	40	28.2
Secondary	67	47.2
Tertiary	05	3.5
Farming Experience		
1-20	89	62.6
21-40	39	27.5
41 and above	14	9.9
Farm Size		
Less than 1 hectare	69	48.2
Less than 2 hectare	39	27.7
Less than 3 hectare	23	16.3
Less than 4 hectare	06	4.3
Less than 5 hectare	05	3.5
Land Ownership		
Personal land	108	76.1
Hired or leasehold	34	23.9
Primary Occupation		
Farming	114	80.3
Trading	10	7.0
Civil servant	08	5.6
Artisan	10	7.0
Membership of Association		
Yes		
No	88	62.0
Total	54	38.0
	142	100

4.2. Poverty Line Estimation: Foster-Greer-Thorbecke (FGT) Model was used to determine the poverty status of maize farmers' in the study area. A poverty line was constructed, using two-third of the mean per adult equivalent expenditure, below which a household was classified as being poor and above which a household was classified as being non-poor. This weighted measure of poverty was used to determine the poverty line as ₦20,659.70 for a year. This means that any farming household that spends below ₦20,659.70 yearly is regarded as being poor while any farming household that spends exactly or more than ₦20,659.70 yearly is regarded as not poor. Poverty Incidence, Poverty Depth or Gap and Poverty Severity: In this study, expenditure is used as a proxy to income because consumption is a better reflection of the long term economic status while income reflects more of current well-being.

Poverty incidence ($P_{\alpha} = 0$) is 0.352113

Poverty depth or gap ($P_{\alpha} = 1$) is 0.161081

Poverty Severity ($P_{\alpha} = 2$) is 0.109416

The data above shows that 35.21% of the maize farmers are poor, which means this percentage of the respondents are below the poverty line (₦20,659.70). Measuring the proportion of household that are not poor, a 64.79%, an over average of the respondents are not poor. The Poverty depth or gap explains that the gap between the poor farmer and the poverty line is 0.161081 and it will take the poor maize farmer (16.11% x ₦20659.70) the amount of ₦3,327.89 to cover up or make up for the poverty gap. Poverty severity index measures how far away or the distance of each poor farmer is from the poverty line and this was estimated to be 10.94%.

4.4. Poverty Status Profile among Household by Socio economic Characteristics.

The result reveals that incidence of poverty appear higher in male headed households with value of 0.360825 while depth and severity of poverty appear higher with values 0.169076 and 0.119470 respectively in female headed households. i.e.36.08% of the male headed households are poor but are not too far away from the poverty line despite the fact they have higher incidence than the female headed households. This means that male headed households are more vulnerable to poverty than the female headed household, while the female headed households have higher poverty gap and poverty severity. This can be explained that the female headed households are more far away to the poverty line despite the fact that the male headed households are more than they are in terms of head count. The vulnerability of the male headed household to poverty may partly be as a result of lack of access to or low productive resources, education, credit, and decision making forum (Oniango and Makudi, 2002) and also because in most parts of rural Nigeria, we have female- headed households always involved in many other occupations besides farming, including trading. They also have a higher mean per capita expenditure than their male

counterparts because they always have a smaller household size. They are always monogamous as compared with so many male- headed households that are polygamous, which is synonymous with large family size. Even when these female-headed households are divorced or widowed from a polygamous household, such new female heads have the responsibility of taking care of their own immediate family, which are normally small (Omonona 2009).

The age categorization of vulnerability to poverty indicates that 31–40 farmers' age range has the highest proportion of poverty incidence 0.500000 while households headed by persons aged 51–60 have the smallest proportion of poverty incidence 0.228571. The age category 41-50 has the highest poverty gap 0.224862 and it will need to mobilize ₦4,648.43 (0.225 * ₦20659.70-poverty line) to be able to get out of poverty. Also this category is the most age category farther away to the poverty line with the value 0.175960 that is, poverty severity. About the marital status of the respondent, it was discovered that the separated respondents (from their spouses) has the highest percentage of poverty incidence out of those respondents that are single, married, divorced and widowed. The divorced farmers category has lowest poverty incidence, the reason may be adduced to the fact that they do not have a complete family set, children may not be living together under the same roof and this in turn reduce the number of people being fed and catered for. This group also may not have dependant that are not contributing to the family income. The gap between the farmers that are separated from their spouses and the poverty line is 3.66% and they will need (36.6% * ₦20,659.70-poverty line) ₦7,561.45 to cover up for the poverty, also this group is 0.133894 farther away to the poverty line. The study also reveals that increase in household size results in increased poverty situation among households in the study area with the incidence, gap and severity highest with values 0.620638, 1.000000 and 0.125293 respectively for household with 16 or more members. The situation might be worse still if the increase in household size translates into more dependants who do not contribute to the household income. Ability of household members to work and earn income is critical to poverty reduction in the study area.

Results from the study shows that farmers with tertiary education in the study area are not poor. Although it appears that incidence of poverty is higher among households whose head had primary school education, this does not down play the importance of education in poverty reduction. Evidence abounds on the positive impact of education on poverty reduction. Access to education does result in increase in the stock of human capital, and in turn labour productivity and wages which in turn results in reduction of poverty in the households. The role of capacity building and human capital development in eradicating poverty cannot be over emphasized. Education equips the people with information and new technologies that are necessary for enhancing economic activities (Ruel et al., 1998; Oniang'o and Makudi, 2002).

Table 2: Poverty Profile Distribution of Respondents

Socio economic characteristics	Poverty Incidence (P_0)	Poverty gap (P_1)	Poverty Severity (P_2)
Sex			
Male	0.360825	0.157372	0.104751
Female	0.333333	0.169076	0.119470
Age			
21-30	0.428571	0.202458	0.147293
31-40	0.500000	0.205745	0.120183
41-50	0.466667	0.224862	0.175960
51-60	0.228571	0.099023	0.043476
Above 60	0.263158	0.120521	0.082715
Marital Status			
Single	0.285714	0.092193	0.029953
Married	0.373984	0.174570	0.122287
Divorced	0.000000	0.000000	0.000000
Widowed	0.125000	0.048765	0.019024
Separated	1.000000	0.365915	0.133894
Household Size			
1-3	0.044479	0.052632	0.037590
4-6	0.100080	0.254545	0.058684
7-9	0.251630	0.485714	0.198951
10-12	0.169888	0.500000	0.086600
13-15	0.446535	0.666667	0.332522
16 and above	0.620638	1.000000	0.385192
Education			
Non – formal	0.266667	0.141803	0.098836
Primary	0.475000	0.229928	0.165591
Secondary	0.343284	0.140631	0.089676
Tertiary	0.000000	0.000000	0.000000

4.5. Relationship between Farmers' Productivity and their Poverty Status

Probit regression analysis was used to determine the relationship between farmers' productivity and their poverty status in the study area. The result of the probit regression analysis shows that the coefficients of household size and expenditure were statistically significant at 1% ($p < 0.01$), with positive and negative coefficients respectively. This means that an increase in household expenditure will reduce the probability of being poor. It can be further explained that when a farmer spends more money on basic and social amenities than before, it is an indication that those things are now affordable for him and therefore improving on his poverty status.

The coefficients of age, sex, marital status and improved technology were statistically significant at 10% ($p < 0.1$), with negative coefficients on age and improved technology, while that of sex and marital status were positive. These implies that an increase in

age of farmers will reduce the probability of being poor because older farmers tend to be more efficient in maize production as a result of increased number of years in terms of experience. Also, an increase in male headed household will increase the probability of being poor than a household headed by female. Access to improved technology was found to be statistically significant at 10% level and has a negative coefficient, this implies that as farmers have more access to improved technology like improved or hybrid seeds, agrochemicals, fertilizers, tractorization, information from extension personnel and other forms of improved technology, their probability of being poor reduces; information, a major key to development and growth. The pseudo R^2 of 55.70% explains the percentage of how the explanatory variables explained the dependent variables. Six of the specified variables used in the model were statistically significant at various levels. They include age, sex, marital status, household size, access to improved technology and expenditure.

Table 3. Probit Regression Analysis of Poverty Status Determinants among Farmers

Explanatory Variables	Coefficients	Standard Error	P> z
Age	-0.4162	0.1791	0.020*
Sex	0.8307	0.4125	0.044*
Education	-0.2966	0.2427	0.222
Marital status	0.5557	0.2545	0.029*
Household size	1.0601	0.2164	0.000***
Farm size	0.0151	0.1768	0.932
Farming experience	0.0320	0.1696	0.851
Land ownership	-0.3252	0.4295	0.449
Improved technology	-1.0279	0.5479	0.061*
Farmer's association	-0.0165	0.3380	0.961
Maize output	-0.0000	0.0000	0.757
Expenditure	-1.4112	0.2455	0.000***
Constant	0.3154	0.7159	0.660

Source: Field Survey, 2013 *, ** and *** Sig. at 1%, 5% and 10% respectively. $R^2 = 0.5570$,

5.0. SUMMARY AND RECOMMENDATIONS

This study has provided empirical information on poverty analysis of maize farmers in Lagelu local government area, Ogun State, Nigeria. The socio-economic distribution of the households shows that there are more male maize farmers than female, more married household, large household sizes, high education levels (primary, secondary and tertiary), high farming experience, high membership association participation and the primary occupation of the farmers are mainly farming. The probit regression analysis showed that age, household's expenditures, sex (gender of the farmers), marital status, household's size and improved technology were the factors determining the poverty level of maize farmers in the study area. The FGT poverty index showed that poverty incidence ($P_{\alpha}=0$, 35.2%), poverty depth or gap ($P_{\alpha}=1$, 16.1%) and poverty severity ($P_{\alpha}=2$, 10.9) respectively. The study therefore recommended that farmers in the study area should try as much as possible to adopt birth control methods to control the large household sizes, diversification to other income generating activities to increase the expenditure. Extension agents should be sent out from time to time to enlighten the farmers on the need for adoption of modern techniques of maize production so as to increase their productivity and encourage more youth participation in farming activities among others.

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Cite this Article: Ibitola OR; Fasakin IJ; Popoola OO; Olajide OO (2019). Poverty Analysis of Maize Farming Households in Oyo State, Nigeria. *Greener Journal of Agricultural Sciences* 9(2): 199-207, <http://doi.org/10.15580/GJAS.2019.2.040219063>.