



## **DETERMINANTS OF POVERTY STATUS AMONG WOMEN FARMERS IN DEVELOPMENT EXCHANGE CENTRE MICROCREDIT OF KADUNA STATE, NIGERIA**

<sup>1</sup>Adamu, B. D. and <sup>2</sup>Michael, H. Y.

<sup>1</sup>Department of Agricultural Extension and Rural Development, Faculty of Agriculture, Ahmadu Bello University Zaria, Kaduna State, Nigeria.

<sup>2</sup>Department of Agricultural Economics and Extension, Faculty of Agriculture, National Open University of Nigeria (NOUN) 91, Cadastral Zone, University Village, Nnamdi Azikiwe Express Way, Jabi, Abuja, Nigeria.

**Correspondent Authors' E-mail** danbaba3@gmail.com **Tel.:** 08065480011

### **ABSTRACT**

The study was conducted to determine the poverty status of women farmers in Development Exchange Centre Microcredit of Kaduna State, Nigeria. The study utilized primary data collected through a questionnaire administered to 420 selected respondents distributed into 210 Development Exchange (DEC) participants and 210 non-participants using purposive and random sampling procedures. Data were analyzed using simple descriptive statistics, the FGT poverty model and Logit regression model. The result of the FGT poverty model revealed that the incidence of poverty among the farming households was 40% and 50% of participants and non-participants. These implied that 60% and 50% of participants and non-participants farm households were not poor. The result of the Logit regression showed that age, education, farm size, farm experience, income, crop output, level of living and access to DEC microcredit were significantly related to the poverty level of the women farmers. This implies that a unit increase in these variables will likely lower household's head of being poor. The study, therefore, recommends that amount of credit facilities provided should be increased so as to increase productivity, time for repayment of credit facilities should be extended to more than one year and the programme should be extended to other farming communities in the State, so as to accelerate the reduction of poverty among rural women in the state and nation at large.

**Keywords:** Development Exchange, Head count, Kaduna State, Microcredit, Poverty line.

### **INTRODUCTION**

Poverty is a problem affecting every nation of the world (Chen and Ravallion, 2016). Poverty has been aptly summarized in both absolute and relative terms, as a state where an individual is not able to cater adequately for his/her basic needs of food, clothing and shelter; meet social and economic obligations, lacks gainful employments, skills, assets and self-esteem and has limited access to social and economic infrastructure. In other words, "the poor lacks basic infrastructure, such as education, health, potable water, and sanitation, and as a result has limited chance of advancing his/her welfare due to limited access to social and economic infrastructures (Bamidele and Englama, 1997; Balogun, 2014; Okonkwo *et al.*, 2015.). Many people all over the world live in absolute poverty and suffer from chronic hunger. Statistics shows that about 3.1 billion people (55%) in rural areas are poor women with about 1.4 billion living in less than US \$1.25 (₦197.50) a day while 1 billion suffering from hunger and 70% of these very poor people rely on farming and agricultural labour (Simpa, 2014; World Bank, 2016.



Nigeria is rich a country inhabited by poor people with challenges of hunger and poverty. Poverty in Nigeria is predominantly rural phenomenon. Rural poverty in Nigeria increased from 28.3% in 1980 to 69% in 2010; and 44.4% of these rural poor could not meet their food expenses (Bolarin, 2010, Ogwumike and Akinnibosun, 2013; Simpa, 2014). Per capita income in Nigeria has reduced from US \$698 (₦104,700) in 1980 to \$290 (₦43,500) in 2003. The nation has dropped in human development index, it was ranked 153rd nation with human development index of 0.471 in 2013 by UNDP, portraying the country among the poorest countries in the world, majority of whom resides in the rural areas with farming as their primary occupation. Over half the population live on less than one US dollar per day and are predominantly rural, women, young or old, live in the northern part of the country and mostly depend on renewable natural resources for their livelihoods (World Bank/Department for Fund and International Development (WB/DFID, 2014) and International Monetary Fund (IMF), 2017). This is an indication of poverty and its consequences. Despite Nigeria's abundant agricultural resources, poverty is widely spread in the country. About 70% of Nigerians live on less than US\$1.25 a day. Poverty is especially severe in rural areas, where up to 80% of the population lives below the poverty line, and social services and infrastructure are limited, in spite of the fact that the bulk of agricultural production takes place in rural areas. The country's poor rural population depends on agriculture for food and income. The poorest groups eke out a subsistence living, but often go short of food, particularly during the pre-harvest period (Simpa, 2014).

Women poverty status has received increased attention of the economists and policy makers since 1990 after the Fourth World Conference on women at Beijing, 1995 (World Bank, 2007). Efforts to reduce poverty was further intensified by world leaders after the World vision 2020 African Conference held in Uganda in 2003 and it was also the first of target among the agenda of Millennium Development Goals (MDGs) with the aim of reducing extreme poverty and hunger by half in year 2015 (Vincent, 2006, Simpa, 2014). Poverty reduction is a priority task facing Nigerian government and Non-governmental organization. The incidence, depth, and severity of poverty among women farmers are such that poverty reduction strategies are synonymous with economic growth and development strategies.

Development exchange centre microcredit programme is a non-governmental organization whose is concerned about worsening rural poverty and the marginalization of women. Its main objectives includes efforts to strengthen access to credit, participation in decision-making, access to agricultural extension services, access to improved farm inputs and tools, traditional thrift and savings. DEC is committed to strengthening rural financial services and improved access to credit, as a key to reducing poverty among women farmers (DEC Newsletter, 2014). Since poverty is a major constraining factor among women farmers (Olawuyi and Adetunji, 2013), it is still important to investigate how socio-economic factors and other related variables that determine poverty among women farmers rural areas in Nigeria. This study looks at poverty as lack of basic necessities based on individual's perspective and status. Identifying the determinants of poverty in rural areas is very crucial to understanding the causes of poverty, and for formulating policies directed at its reduction. Therefore, the broad objective of this study was to assess the determinants of poverty among women farmers DEC microcredit participants in Kaduna State, Nigeria with the specific objectives of to:

- i) identify socio-economic characteristics of the women farmers DEC microcredit participants;

and



ii) determine the poverty status of the women farmers DEC microcredit participants in the study area

## **MATERIALS AND METHODS**

### **The study Area**

The study was conducted in three local governments' areas (LGAs) of Kaduna State. The LGAs are Sabon-Gari in the northern, Kaduna-South in the central and Jema'a in the southern Senatorial District of the state. These LGAs were randomly selected out of nine LGAs participating in DEC microcredit programme in the State. Kaduna State is in north-western Nigeria, located between Latitudes 9° and 12°N and Longitudes 6° and 9°E of Greenwich Meridian. It shares boundaries with Abuja in the east and Katsina, Kano and Zamfara in the north, Nasarawa and Plateau in the northeast and Niger in the northwest. The mean annual rainfall is between 1500mm and 2000mm in north and south respectively. Kaduna State has an estimated population of 6,066,562 (NPC, 2006) out of which the female population is 2,954,534 (48.7%) (National Commission for Mass Literacy Adult and Non-formal Education, 2008). It is estimated that the population will increase to 8,578,657 by 2017 based on the National Population Commission (NPC) annual growth rate of 3.2%. While the female population will be 4,177,947 at the same growth rate. The state covers an area of about 45,786 km<sup>2</sup> (Federal Office of Statistics [FOS], 2006).

### **Sampling Procedure and Sample Size**

Multistage sampling technique was used for this study. In the first stage, three (3) Local Government Areas (Sabon-gari, Kaduna south and Jema'a) were randomly selected from the 9 LGAs participating in DEC microcredit programme in the State. In the second stage, two (2) villages each were randomly selected from each of the three (3) LGAs. In the third stage, from a sample frame of 2,103 women participating in the DEC programme, 210 subjects, representing 10% were randomly selected. The list of the participating women was obtained from the DEC microcredit office in Kaduna. Finally, the list of 210 non-participant women farmers were also obtained from Kaduna Agricultural Development Project (KADP) extension agent. This was randomly selected to obtain a total sample size of 420 respondents.

### **Method of Data Collection**

Primary data were used for this study. The data were collected from the respondents with the aid of a well-structured questionnaire. The data collected included the socio-economic characteristics of the DEC women farmers such as; age of respondents, farming experience, educational status of the respondents, household size, farm size, farm experience, access to credit, membership of cooperative, number of extension contacts, income, crops output, food and non-food expenditure for determining the poverty status of farmers.

### **Analytical Techniques**

Analysis of data collected from the field was done using mean, percentages and frequency, Foster, Greer and Thorbecke (FGT) poverty model and Logit regression model.

### **FGT poverty model (Foster, Greer and Thorbecke model)**

This was used to determine the poverty status of the farmers. The Foster, Greer and Thorbecke (FGT) measures of poverty are widely used because they are consistent and additively decomposable (Foster *et al.*, 1984). Poverty head count index, poverty gap index and squared poverty gap index were computed to measure the incidence, depth and severity of poverty of the fish processors. A relative poverty line was constructed based on the Mean Per



Capita Household Expenditure (MPCHE) of the farmers. The General Foster, Greer and Thorbecke (FGT) poverty index ( $P_{ai}$ ) measure for the  $i^{\text{th}}$  sub-group ( $P_{ai}$ ) is given as:

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

where;

$$a = 0, P_0 = \frac{1}{n} \sum_{i=1}^q \left[ \frac{(z - y)}{z} \right]^0 = \frac{q}{n} \rightarrow \text{Poverty incidence or head count}$$

$$a = 1, P_1 = \frac{1}{n} \sum_{i=1}^q \left[ \frac{(z - y)}{z} \right]^1 \rightarrow \text{Poverty depth}$$

$$a = 2, P_2 = \frac{1}{n} \sum_{i=1}^q \left[ \frac{(z - y)}{z} \right]^2 \rightarrow \text{Poverty severity}$$

where generally;

$a$  = degree of poverty aversion (0, 1 and 2)

$n$  = number of households in a group

$q$  = the number of poor households

$y$  = the per capita expenditure (PCE) of the  $i^{\text{th}}$  household.

$z$  = poverty line (two-third of Mean Per Capita Household Expenditure (MPCHE) of the farmers)

### **Logit Regression Model**

The Logit analysis was employed in the analysis of the data collected to achieve objective ii of the study. The logit regression model is specified thus:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_{12} X_{12} \quad \dots(2)$$

where;

$Y$  = (Poverty status of DEC women farmers; 1 or 0)

$X_1$  = Farm size (hectare),

$X_2$  = Labour input (mandays),

$X_3$  = Age (years),

$X_4$  = Farming experience (years),

$X_5$  = Cost of inputs (Naira),

$X_6$  = Access to DEC microcredit (amount received in Naira),

$X_7$  = Education (number of years of formal schooling),

$X_8$  = Extension contact (number of contact in a year),

$X_9$  = Distance to market (km),

$X_{10}$  = Remittance (Naira),

$X_{11}$  = Household size (number),

$X_{12}$  = Household expenditure (naira),

$X_{13}$  = Training (number of times a respondent had participated in training),

$E$  = independently distributed error term error term,

$\beta_0$  = vector of Logit maximum likelihood estimates Constant term,

$\beta_1 - \beta_{13}$  = Regression coefficients to be estimated variables.



It is important to note that the assumption of *ceteris paribus* applies, i.e., a higher value of explanatory variable with positive coefficient is expected to increase the probability of being poor and, for the poor farmers, the extent to which they are poor and vice versa.

## RESULTS AND DISCUSSION

### Socioeconomic Characteristics of Respondents

Table 1 shows that majority (45%) of respondents were between the age of 31 to 40 years for participants and about 50.4% for non-participants. Mean age of participants was 37 years while non-participants were 38 years. About 72% and 69% of participants and non-participants, respectively, had one form of education or another. 60% of participants and 47% non-participants had a mean of 6 persons per household. Also, 71% of participants and 62% non-participants cultivated land areas of between 2 to 4 hectares while approximately 22% of non-participants cultivated less than 2 hectares. The mean farm size for participants and non-participants was 2 hectares. Majority of the participants (52%) and only 47% of non-participants had farming experience of between 11 to 20 years. About 47% of participants and 53% of non-participants belongs to women group association and cooperative society. Majority 73% and 82% of programme participants and non-participants had monthly contact with extension workers during the 2015 cropping season in the study area. The result in Table 1 shows that, 71% of programme participants received between ₦40, 001 – ₦50 with a mean amount of ₦45, 580.95. Furthermore, about 96% of the participants and 89% of non-participants had attended training at least one or four times during cropping season in the study area.

### Determination of Poverty Line of the Farmers in the Study Area

The data in Table 2 give estimation of the poverty line that was used to determine the poverty status of DEC microcredit participants and non-participants in the study area. The poverty line formed the basis for further analysis. The Foster-Greer-Thorbecke (FGT) class of poverty measures was employed to estimate the poverty status of the participants and non-participants. Following the adoption of Foster, Greer and Thorbecke measures, household total expenditure was used to determine household poverty status. The result in Table 2 show household food and non-food expenditure, total expenditure, per capita and mean per capita expenditure and the poverty line. The poverty line was constructed as two-thirds of the mean per capita household expenditure (MPCHE) of all households. This approach has been used by several researchers and institutions (NBS, 2012; Oni and Yusuf, 2008) as a measure of welfare. Households were then classified into their poverty status based on the poverty line. Hence, non-poor households were those whose per capita expenditure was above or equal to two-third of the mean per capita expenditure of all households while those whose per capita expenditure was below two-thirds of the mean per capita expenditure were classified as poor. Based on this, the poverty line constructed as two-third of the mean per-capita expenditure for participants and non-participants households was ₦159,880/monthly. This implies that households whose monthly per capita expenditure fell below ₦159,880 were classified as poor while households whose per capita expenditure equaled or was above the poverty line were classified as non-poor.



**Table 1:** Distribution of Respondents according to Socio-economic Characteristics

Variables	Participants	Mean	Non-Participants	Mean
<b>Age (years)</b>				
20-30	39(18.7)	37	45(21.4)	38
31-40	94(44.9)		106(50.4)	
>50	77(36.7)		59(28.3)	
<b>Education level (years)</b>				
Primary education	51(24.3)		32(15.2)	
Secondary educ.	92(43.8)		100(47.2)	
Tertiary education	08(3.8)		13(6.2)	
Koranic education	59(28.0)		65(30.9)	
<b>Household size (No.)</b>				
1-3	62(29.5)	6	99(47.1)	6
4-6	126(60.0)		99(47.1)	
>7	22(10.4)		12(5.7)	
<b>Farm size (ha)</b>				
< 2	25(11.9)	2.0	46(21.9)	2.0
2.0- 4.0	149(70.9)		130(61.9)	
>4	36(17.2)		34(19)	
<b>Farming experience (years)</b>				
1-10	09(4.3)	22	13(6.2)	19
11-20	109(51.9)		140(66.7)	
21-30	79(37.6)		52(24.8)	
>40	13(6.2)		5(2.4)	
<b>Membership association</b>				
Women group	100(47.6)		55(26.2)	
Youth group only	06(2.9)		13(6.2)	
Mixed group	38(18.1)		31(14.8)	
Cooperative society	66(31.4)		111(52.9)	
<b>Extension Visits (No.)</b>				
None	2(1.0)		12(5.7)	
Weekly	45(21.4)		22(10.5)	
Monthly	153(72.9)		173(82.4)	
Annually	10(4.8)		3(1.4)	
<b>Credit received (₦)</b>				
20,001-40,000	53(25.2)	₦45,580.95		
40,001-50,000	150(71.4)			
>50,000	7(3.4)			
<b>Training (No.)</b>				
1-4	201(95.71)		186(88.6)	
5 above	09(4.29)		24(11.4)	

Figures in parentheses are percentages of the total. Source: Field Survey, 2015.



**Table 2: Determination of Participants’ and Non-Participants Poverty Line**

Type of expenditure	Participants	Non-participants
Household food expenditure	230,283.71	152,766.37
Household non-food expenditure	184,729.51	71,300.94
Household total expenditure	415,013.22	224,067.31
Per capita household expenditure (PCHE)	104,033.47	66,717.23
Mean Per capita household expenditure (MPCHE)	2,092.23	1,187.41
2/3 MPCHE (Poverty line)	159,880	159,880

Source: Field Survey, 2015

**Poverty Indices of the Farm Households**

The result presented in Table 3 shows the values for the poverty measures. Poverty headcount index or incidence ( $P_0$ ), poverty gap or depth ( $P_1$ ) and squared poverty gap or severity ( $P_2$ ). Based on the poverty line, households were classified into their poverty status as presented in Table 3. The poverty headcount index (incidence of poverty) calculated for the study area was 0.4 and 0.5 for programme participants and non-participants respectively. Implying that the proportion of the farming households whose per capita expenditures fell below the poverty line (₦159, 880) was 40% and 50% for DEC participants households and non-participants households. The figures are relatively low when compared to those of Omonona (2001) who reported a poverty incidence of 58% in Kogi State and Patrick (2006) who reported a poverty incidence of 62% in Borno State. Respondents with a mean per capita expenditure equal to or higher than the poverty line is a standard of expenditure or income, which represents the minimum requirement for active life or survival. The poor are conventionally defined as the population that falls below a certain poverty line (Reardon and Vosti, 1995).

Poverty Gap (depth) ( $P_1$ ), usually referred to as the depth of an average poor person from the poverty line. The poverty gap was 0.4 and 0.48 for participants and non-participants households and this implies that the poor participants and non-participant households require 4% and 48% of the poverty line (₦159, 880) was required to escape from poverty. It is a measure of the poverty deficit of the entire population.

**Table 3: Poverty measures for the Participants and Non-participants**

Poverty measures	Participants	Non-participants
Poverty line (₦)	₦159.88	₦159.88
Poverty headcount	0.4	0.5
Poverty gap	0.04	0.48
Poverty severity	0.20	0.69
Poor (%)	4.0	48.0
Non-poor (%)	96.0	52.0

Source: Field Survey, 2015

Poverty severity value was 0.2 and 0.69 for participants and non-participants households. This implies that the severity of poverty among participants and non-participants households in the study area was 2% and 69 % respectively. The poverty severity takes into



account not only the distance separating the poor from the poverty line, but also the inequality among the poor. This result conforms to Asogwa *et al.* (2009) who reported a poverty severity of 0.15 in a study on poverty among farming households in Nigeria.

### **Effect of DEC Microcredit on Poverty Level of the Programme Participants**

The Logit regression model was used to estimate the determinants of poverty level of the women DEC participants with particular interest on the influence of DEC microcredit on their poverty level. The result presented in Table 4 shows the likelihood ratio Chi-square was significant ( $p < 0.01$ ) with Chi-square value of 201.40, which means the model is a good fit. Age, education, farm size, farm experience, credit, income crops output and level of living.

Household size, that indicates that age has a positive coefficient (0.054) and is significant at  $P < 0.05$  level of probability, implying that the age of farmer will significantly influence his or her poverty status. The age of the respondents were found to be positively correlated to their poverty status, indicating that as a household head got older, the livelihood of being poor increased. This position is consistent with that of Gang *et al.* (2002), and Rodriguez (2002) that poverty increases with old age, as the productivity of the individual decreases.

The coefficient of education was also significant ( $p < 0.05$ ). This implies that one year increase in years of schooling will decrease the probability of been poor among participant households. This may be attributed to the fact that educated household heads tend to adopt improved farming techniques better and faster than uneducated ones. This raises the productivity and income of the educated heads and subsequently alleviating poverty among their households. Farm size had a positive coefficient (0.435) and was significant at  $P < 0.01$  level of probability. This implies that farm size is an important poverty status determinant in the study area and significantly influences the probability that a household would be poor or non-poor. The coefficient of farm experience was found to have a direct relationship with the poverty status of programme participants in the study area and is statistically significant at 1% level of probability, this implies that farm experience is an important poverty status determinant in the study area and significantly influences the probability that a household would be poor or non-poor. Moreover, Farm inputs was important factors in farm productivity among participants' households but was insignificant in determining poverty.

Also in Table 4, although labour was an important asset in farm productivity with a positive coefficient (0.012), it was also not a significant variable in poverty status determination among participants' households. Access to market also had positive coefficient (0.006), but was insignificant variable in determining poverty status. Credit assists the farm households in the purchase of farm inputs such as fertilizers, herbicides, improved seeds and investment demand to increase productivity. The coefficient of access to credit was significant at 5% level and negatively related to the poverty status of the farm households. This implies that access to credit in the study area reduces the likelihood of a women DEC participant's household being poor and this is because access to DEC credit gives the women farmers the opportunity of enhancing their production capacity through purchase inputs such as improved seeds and fertilizer. This is not surprising, as credit can reduce liquidity constraints and increase the capacity of households to start off-farm businesses. This is in line with the findings of Babatunde and Qaim (2009) who reported that access to credit has a positive influence on income of women households. Farm income had a positive coefficient (26.562) and was significant at  $P < 0.01$  level of probability. This implies that farm income is an important variable in poverty status determination and that it significantly influenced the probability that





a household was poor or non-poor. Increased income enables the households to move out of poverty.

The crop output had a positive coefficient (0.375) and was significant at  $P < 0.010$  level of probability. Crop output is an important variable in poverty status determination. Therefore, a unit increase in the crop output increased the probability of the farming households moving out of poverty by 99.9%. Living standard of the households was found to be positive and significant at  $P < 0.01$  level of probability. Thus a unit increase in the households' living standard increased the probability of households escaping from poverty by 0.6%. The model accounted  $R^2$  (0.693) for 69% of the variation in poverty status of DEC microcredit programme participating households.

**Table 4:** Factors influencing Poverty Status of the Respondents

Variables	Participants			Non-participants		
	Coefficient	S E.	Z-value	Coefficient	S E.	Z-value
Age	0.054	0.014	3.857***	1.961	0.689	2.846***
Education	0.414	0.169	2.449**	0.08	0.099	0.808
Farm size	0.435	0.052	8.365***	0.014	0.010	1.40
Farm Experience	1.440	0.342	4.210***	-0.050	0.054	-0.925
Farm inputs	0.014	0.040	0.350	-0.004	0.073	-0.054
Labour	0.012	0.010	1.200	0.919	0.107	8.588***
Access to market	0.006	0.023	0.260	0.504	0.1172	4.300***
Credit	-1.00011	0.0000	6.810***	-0.263	0.397	-0.662
Income	26.562	9.718	2.733***	0.718	0.864	0.831
Crops output	0.375	0.199	1.884*	7.363	28.575	0.257
Level of living	0.006	0.0017	3.529***	2.031	1.0311	1.969*
Constant	1441.	8024.3	0.179	1.963	0.693	2.832***
Log likelihood =	-15.763			-32.968		
Number of observation =	210			210		
Pseudo $R^2$ =	0.693			0.753		
Chi-square	71.34***			201.40		
P-value =	0.000			0.000		

\*\*\*  $P < 0.01$ , \*\*  $P < 0.05$  and \*  $P < 0.10$

Source: Field Survey, 2015

## CONCLUSION AND RECOMMENDATION

Based on the findings of this study, it can be concluded that 4% and 48% of the participants and non-participants' farm households were poor, implying that 96% and 52% of participants and non-participants of the farmers households were non-poor. Age, farm size, farm experience, income, crop output, access to DEC credit and standard of living, significantly determined the poverty status of farming households in the study area. Access to DEC microcredit by the farm households decreased the farm households' probability of being poor implying that access to DEC microcredit offers an opportunity for alleviating poverty among the farm households in the study area. It recommends that the programme should be replicate in other communities in the state to achieve poverty reduction among the women folks in the state and nation at large.



## REFERENCES

- Asogwa, B. C., Umeh J. C. and Okwoche, V. A. (2012). Poverty and Efficiency among the Farming Households in Nigeria: A Guide for Poverty Reduction Policy. *Journal of Economic Theory*, 4(1): 6-10.
- Babatunde, R. O. and Qaim, M. (2009). Patterns of Diversification in Rural Nigeria: Determinants and Impacts. *Quarterly Journal of International Agriculture*, 48(4): 305-320.
- Balogun, E. D. (2014). Analyzing Poverty: Concepts and Methods. *Central Bank of Nigeria Bulletin*, 23(4):11-16.
- Bamidele, A. and Englama, A. (1997). *Measurement Issues in Poverty. In Poverty Alleviation in Nigeria*. Selected Papers for the 1997 Annual Conference of the Nigerian Economics Society, Pp. 141-156
- Bolarin, O. (2010). *Quantitative Analysis of Rural Poverty in Nigeria*. International Food Policy Research Institute (IFPRI), IFPRI-Abuja, [www.ifpri.org](http://www.ifpri.org). retrieved on 20 June, 2018.
- Chen, S. and Ravallion, M. (2016). The Developing World is Poorer than we Thought, but no less Successful in the Fight against Poverty. *Journal of Economics*, 125(4): 1577–1625.
- Development Exchange Centre, (2014). *Newsletter About Dexcentre*. Retrieved on September 26, 2014. from [www.dexcentre.org/newo/about.php](http://www.dexcentre.org/newo/about.php).
- FOS (2006). *Federal Office of Statistics, 2006 National Census*.
- Foster, J., Greer, J. and Thorbeecke, E. (1984). Decomposable Poverty, Applied to Kenya. *Journal of Development Economics*, 52(2): 761-766.
- Gang, I. N., Sen, K. and Yun, M. S. (2002). *Caste, Ethnicity and Poverty in Rural India*. Departmental Working Paper No.200634. New Brunswick Rutgers University, Department of economics.
- International Monetary Fund (IMF), (2017). *Nigeria: Poverty Reduction Strategy paper-progress Report*. IMF Country Report, August.
- National Commission for Mass Literacy, Adult and Non- Formal Education (NMEC), (2008). *The Development and the State of Adult Learning and Education*. National Report of Nigeria 11. Retrieved on April 12, 2012 from [www.unesco.org/..Nigeria](http://www.unesco.org/..Nigeria). Retrieved on the 4<sup>th</sup> October, 2018.
- National Population Commission, (2006). *Census Bulletin, Kaduna State, Nigeria*.
- National Bureau of Statistics (NBS), (2012). Nigeria Poverty Profile. Neglect and Agenda for Action. *International Education Journal*. 6(4): 530-536. Shannon Research Press.
- Ogwumike, F. O. and Akinnibosun, M. K. (2013), Determinants of Poverty among Farming Households in Nigeria, *Mediterranean Journal of Social Sciences*, 4(2): 23-31.
- Okonkwo, T. O. Ezeke, K. N. N and Igboji, C. (2015). Poverty in Nigeria and Effects of Microfinance on Poverty Alleviation among Rural Farming Households. *Journal of Agriculture and Veterinary Science*, 8(4): 56-62.
- Olawuyi, S. O. and Adetunji, M. O. (2013). Assessment of Rural Households Poverty in Nigeria. Evidence from Ogbomoso Agricultural Zone of Oyo State, Nigeria. *Journal of Scientific Research and Reporters*, 2(1): 35-45, Science domain International, [www.Sciencedomain.org](http://www.Sciencedomain.org). Retrieved on 10/03/2018.
- Omonona, B. T. (2001). *Poverty and its Correlates among Rural Farming Households in Kogi State, Nigeria*. Unpublished PhD. Thesis, Department of Agricultural Economics, University of Ibadan.



- Oni, O. A. and Yusuf. N. (2007). *Determinants of Expected Poverty among Rural Households in Nigeria*. Unpublished PhD Thesis, Department of Agricultural Economics, University of Ibadan.
- Patrick, V. K. (2006). *Poverty Profile and its Determinants among Farming Households in Borno State, Nigeria*. Unpublished PhD Thesis, Submitted to the School of Postgraduate Studies, University of Maiduguri, Borno State, North-East, Nigeria.
- Reardon, T. and Vosti, S. A. (1995). Links between Rural Poverty and the Environment in Development Countries: Asset Categories and Investment Poverty. *World Development*, **23**(9): 1495-1506.
- Rodriguez, J. G (2002). *The Determinant of Poverty in Mexico*. [www.gdnet.org/pdf/2002awardswinners/growthinqualitypoverty/jorggarzarodriguezpaper.pdf](http://www.gdnet.org/pdf/2002awardswinners/growthinqualitypoverty/jorggarzarodriguezpaper.pdf).
- Simpa, J. O. (2014). *Poverty Determinant among Female Household Rural Farmers in Nasarawa State, Nigeria*. [www.patnsukjournal.net/currentissue](http://www.patnsukjournal.net/currentissue), Retrieved October 14, 2017.
- Vincent, A. Y. (2006). *Challenges of MDGS and Imperative of Globalization*. Daily Trust Friday, October 6, 2006 Pp14.
- World Bank (2007). *Global Monitoring Report: Millennium Development Goals, Confronting the Challenges of Gender Equality and Fragile States*. World Bank, Washington, DC.
- World Bank/DFID, (2014). *Country Partnership Strategy for the Federal Republic of Nigeria*. June 2.
- World Bank, (2016). *Millennium Development Goals: Nigeria World Development Indicators Database*. World Bank, Washington DC.