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Effect of Youth Rural-Urban Migration on Poverty Status of Cassava Farmers in South Western, Nigeria

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Abstract **– The study analysed the influence of youth migration on the poverty status of cassava farmers in the study area. It focused on the roles played by the youth in cassava production activities, reasons for migration and the benefit farming household derived from migrant youths. Primary data was collected from 312 cassava farming households through a multistage sampling technique from three out of the six states in southwest Nigeria. Data were analysed using descriptive statistics, two stage least square (2SLS) and ordered probit model. The study revealed that 68% of the farmers were male, 80% of them were married with an average household size of 6 persons. The mean age and education were about 47 years and 8 years respectively. Results further showed that sex, being married and access to credit significantly influence poverty status of the farmers positively, while household size, farming experience, and migration affect poverty status negatively. Irrespective of the negative influence of migration on farming household, a number of the farmers indicated the various benefits they enjoy from migrant youths. Provision money for drugs to cater for healthy living ranked highest among the benefit. Based on the findings it was recommended that credit facility should be made available to the farmers to improve farming activities. Also, an enabling environment should be provided for faming activities to encourage the youth involvement in agricultural practices hence reduction in migration.**

Keywords **– Youth Migration, Cassava Farmers, Poverty Status, Rural Nigeria.**

I. INTRODUCTION

Cassava *(Manihotesculenta) is* one of the world's most important food crops and the most important source of carbohydrate. It provides food for over 60 million people in Nigeria, (Adebisi, Olawale and Jatto 2015). Cassava ranked high among crops which convert the solar energy into soluble carbohydrates per unit of area and it gives a carbohydrate production which is about 40% higher than rice and 25% more than maize. With this fact, cassava is known to be the cheapest source of calories for human nutrition and animal feeding (Tonukari, 2004). Iyagba (2010) reported that majority of the rural dwellers in Nigeria eat a cassava meal at least once a day, therefore, cassava plays a major role in the country's food security.

The usefulness of cassava comes in diverse ways. It serves as a staple food to human beings and it is used in animal feed formulation. Industrially, it is used to produce starch, ethanol, adhesive, fructose/ glucose syrup etc. Cassava is important not only as a food crop but even more as a major source of income for rural households. It is also a crop that outstrips other crops relatively in its potentials for cultivation and survival on marginal lands. Cassava produces acceptable yields on poor depleted soils where other crops may yield virtually nothing. It can therefore be used to take advantage of marginal soils. Consequently, it is a crop that lends itself to cultivation by the vast majority of farming households in Nigerian with high potentials for wealth creation (Oyewole and Philip 2006).

According to Adebisi et al., (2015), in Nigeria the drift for cassava production in the agricultural sector is rapidly increasing and the utility expansion of this multi-purpose crop has been relatively steady. This is because Nigeria makes use of cassava crop to diversify and boost its economy through efforts geared towards making cassava production sustainable with economic edge over other developing countries. However, agricultural production in Nigeria is still carried out manually using physical strength that declines with age. In view of this, young and able bodied men are needed for farm activities because they can easily handle light mechanization and technology better than the ageing farmers. Hence, the youth have desirable qualities that can promote agriculture especially cassava production, however, most of them have strong apathy toward farming exercise (Adewale *et al.,* 2005). This may be due to the fact that farm outputs from their physical efforts are overwhelmed by the large demand as a result of increasing population. With fewer youths into agriculture, the long-term future of the agricultural sector in Nigeria is questionable because a larger population of youths represents the link between the present and the future as well as a reservoir of labour (Okeowo *et al*., 1999).

Youths are the admirable drive in cassava production activities, constituting a sizeable proportion of future progressive farmers and better citizens, especially in rural areas where agricultural production action activities are predominant (Aphunu and Atoma 2010). They possess unique capabilities (dynamism, strength, adventure, ambition), and these are assets for agriculture (Nnadi and Akwiwu 2008). Youth have been noted to play a vital role in the production of cassava especially in developing countries, Nigeria inclusive, where their contribution is paramount. Ojuekaiye (2001), reported that the rural youths play a central role in cassava production, processing and marketing activities. The study identified that rural youths are responsible for cassava production which provides additional income earning opportunities, enhances their ability to contribute to household food security and meet other household needs.

According to Mgbakor, Uzendu and Usifo (2014), the performance of the agricultural sector in Nigeria is declining due to many factors one of which is rural urban migration especially by the youths. This involves the shifting of labour force from rural areas to urban centers in search of employment, better living standard, freedom of

religion and a host of other reasons. One of the factors affecting rural urban migration is the shortage of labour supply needed for agricultural production (White, 2000). Yohanna (2014) defined migration as the movement of people from one place to another in search of employment, market, education, health and other means of livelihood. The movement can be temporary or permanent. Lawal and Okeowo (2014) discovered that lack of an opportunity to earn ready cash income during the slack season in the farming calendar engendered migration among farmers. They equally reported that rural-urban wage differential may generate migration as was found in Nigeria during the colonial days when the introduction of export cash crops like cocoa and rubber into south western Nigeria drew migrant farmers from other parts of the country into the region.

Migration occurs as a response to economic development as well as social, cultural, environmental and political factors which have effects on areas of origin and destination. The impact of rural-urban migration among the youths on agricultural production activities in the rural areas cannot be overemphasized. The migration of youths from rural areas to cities in search of better life is taking away the potential youths who are capable of participating in farming activities especially in the rural areas (Chikaire et al., 2012). Therefore, the need to encourage youths to remain in rural areas arise if they are guaranteed amenities such as technologies/ mechanization that will ease faming activities and will not make them age quickly. As reported by Ofuoku (2015), Rural-urban migration negatively impacts on the quality of rural life, especially when such migrants carry away their needed contribution to increased productivity into the city. This is an act that places a greater burden on the farmers. Bull (2001) pointed out that the rural-urban pattern of migration takes more young men than women out of the rural areas, resulting in many women becoming the heads of the households and being responsible for agricultural production.

Report from Mgbakor et al., (2014) pointed out that the youths are known to perform the most tedious jobs on the farm. It also documented that, in most cases, the works of rural youths include among others clearing of the farm, making road locally, clearing of the village streets, crops and animal processing, livestock raising and artisanal production activities. With more youths' migration into urban areas to earn a living, more aged people are now left to accomplish the tasks associated with farming, especially the tasks which are reserved for the youths. The consequence of the mass migration of youths from rural to urban areas according to Mbah, Ezeano and Agada (2016) is the increment in the cost of labour. With this trend, most farmers have found it increasingly difficult to afford the high cost of labour. Even when some can afford it, labour is readily unavailable because many youths have migrated to cities and most of those left behind may not be interested in agricultural activities. Therefore, there is no doubt that the added responsibilities will reduce the agricultural production hence lower income generation and consequently increase the number of the impoverished within the rural farming households (Ekwu and Eje, 2004).

It is not difficult to identify the poor, they have features like very low and uncertain incomes, limited salaried employment opportunities, lack of means of capital accumulation, very poor living conditions, and restricted access to formal education, poor social, health and nutrition conditions and very distant proximity to the processes and centres of decision making. Poverty is one of the most serious manifestations of human deprivation and is inextricably linked to human capital. Poverty encompasses inadequate income and denial of the basic necessities such as education, health services, clean water and sanitation (World Bank, 2007). In view of these facts, the study aimed at examining the factors influencing the poverty status of the cassava farmers as a consequence of youth migration. Specifically, the study identified the roles of youth in cassava farming, labour strategies adopted by cassava farmers, perceived reasons for youth migration, benefit derived by farming households from youth migration, categorizing farmers based on poverty status and examining factors influencing poverty status among cassava farmers in the study area.

II. METHODOLOGY

This study was conducted in south-western, Nigeriawhich consist of Lagos, Ogun, Oyo, Osun, Ondo and Ekiti states. It is also known as the South-west geographical zone of Nigeria. The area lies between longitude 20^0 311 and 60^0 001 East and Latitude 60^0 211 and 80^0 371N with a total land area of 77,818 km2 and a population of 27,581,992 (NPC, 2006). The area is bounded, in the North by Kwara and Kogi states, in the East by Edo and Delta states in the West by the Republic of Benin and in the south by the Gulf of Guinea. According to Falalu (2007) south-western Nigeria owns and/or control 60% of the nation's industrial capacity, 44% of banking assets, 67% of insurance assets and is house to the nation's three deep sea ports of Apapa, Tin Can Island and Roro; the busiest international airport of Ikeja, three thermal stations of Egbin, Papalanto and Omotosho. Today, its three major industrial estates of Agbara, Ikeja and Otta are all linked to gas under the West African gas pipeline plan. In addition to these, the south-western population is the most educated as western education came through there and education as a resource was democratized since the early sixties. The geographical location, democratization of western education, availability of resources enhanced in recent years have collectively enabled the south-western economy to rank as first of the economies in Nigeria.

The climate of Southwest Nigeria is tropical in nature and it is characterized by wet and dry seasons. The temperature ranges between 21°C and 34°C while the annual rainfall ranges between 1500mm and 3000mm. The wet season is associated with the southwest monsoon wind from the Atlantic Ocean while the dry season is associated with the northeast trade win from the Sahara Desert. The vegetation is South-western Nigeria is made up of fresh water swamp and mangrove forest at the belt, the low land in forest stretches inland to Ogun and part of Ondo state while secondary forest is towards the northern boundary where

derived and southern Savannah exist (Faleyimu et al., 2010). South - western Nigeria is dominated by the Yoruba ethnic group. Economic activities undertaken include trading, handcraft, public service employment, and agriculture. The predominant crops produced are cassava, maize, vegetables such as mango, cashew, okra, cucumber, tomatoes, pepper, cocoa, kolanut among others.

III. Sampling Procedure and Sampled Size

Multistage sampling technique was used for the study. A purposive sampling technique was used to select three states from the six states located in the study area based on the predominance of cassava production activities. The selected States were Oyo, Ogun and Ondo states. All the Agricultural Development Programme (ADP) agricultural zones for each state were used on the basis that majority of the rural households are into one form of farming activities or the other. There are four agricultural (ADP) zones in Oyo and Ogun states and two ADP zones in Ondo state. Fifty percent of these ten zones were used for the study. Stratified sampling technique was used to divide the Local Government Areas (LGAs) under the ADP agricultural zones into urban and rural as indicated by the Ministry of Local Government and chieftaincy offices of the states. This formed the second stage. The third stage involved the use of simple random sampling technique to select a rural LGA from each of the five agricultural zones considered in the study, making a total of 5 LGAs. Twenty-seven (27) villages were selected based on proportionate sampling, 11 villages from Oyo state, 10 villages from Ogun state and 6 villages from Ondo state. In the last stage, 13 respondents each were randomly selected from the selected villages to make a total of 351 respondents. However, 312 copies of questionnaire were used in the analyses, inadequate information and inconsistency necessitated the rejection of others. Finally, 121, 114 and 77 respondents were sampled in Oyo, Ogun and Ondo states respectively.

IV. Analytical Technique

Descriptive statistics, poverty measure (using per capita household expenditure), Two stage least square (2sls) and ordered probit were used to analyse the data collected. The descriptive statistics used included tables, mean values, frequency and percentages.

Household expenditure was used as a proxy for income in this study in favor of the permanent income hypothesis by Friedman (1957) which argues that `household expenditures are more stable across times than current incomes which may fluctuate for groups within the self - employed range, employees as well as due to uncertainties in life events and other circumstances like savings, debt and running up and down` (Meyer 2006). Households with expenditure greater than two-thirds of the total household *per capita* expenditure are non-poor whereas households below it are poor. This is further disaggregated to show that households with less than one-third of total household *per capita* expenditure are core-poor (extreme poor) while households with greater than one-third of total expenditure but less than two-thirds of the total expenditure are moderately poor. Accordingly, the poor category is sub - divided into those in extreme poverty and those in moderate poverty, where extreme poverty is more severe than moderate poverty. Those in moderate poverty constitute a greater proportion of the growing middle class in the study area who are at the point of crossing over to the non-poor category.

Instrumental Variables and two Stage Least Square:

Instrumental variables methods are commonly used to estimate causal effects in contexts in which controlled experiments are not available. Credibility of the estimates hinges on the selection of suitable instruments. According to Nelson and Startz (1990), the two requirements for using an IV in a linear model are: The instrument must be correlated with the endogenous explanatory variables, conditional on the other covariates and cannot be correlated with the error term in the explanatory equation, that is, the instrument cannot suffer from the same problem as the original predicting variable. In order to estimate the effect of youth migration on household expenditure, a reduced form specification of the determinants of per capita expenditure was estimated.

The estimate of youth migration is endogenous to per capita expenditure because they run in both directions therefore, it will correlate with the disturbance tern which will violate the assumptions and make the estimates of OLS to be biased. In order to correct for the endogeneity of youth migration, instrumental variable (IV) was used for the potential exogenous variable in the model, that is youth migration. The IV used were highly correlated with youth migration but uncorrelated with household expenditures. The 2SLS reduces the correlation of the explanatory endogenous variable with the error term (Olasyemi 1998). As a result, the regression parameters are better enhanced. The structural equation and reduced equation of the 2SLS as expressed below

$$E_i = \beta_0 + \beta_1 X_i + \beta_2 YM_i + \varepsilon_i \quad (1)$$

$$YM = \alpha_0 + \alpha_1 X_i + \alpha_2 Z_i + \mu_i \quad (2)$$

Where Ei is the household per capita expenditure

β_0, β_i, β_2, α_0, α_1, and α_2 are vectors of the estimable parameters.

ε_i and μ_i are the disturbance error term.

X_i represent other estimable exogenous.

YM is youth migration.

Z is the instrumental variable which is correlated with social capital and uncorrelated with the error term.

Ordered Probit Model:

This is a regression model which generalizes probit regression by allowing more than two discrete outcomes that are ordered. Ordered probit model is used to model relationships between a polytomous response variable which has an ordered structure and a set of regressor variables. The farming households were classified into 3 categories of core poor, moderately poor and non-poor. This categorization was used as dependent variable. Ordered probit model is widely used to analyze discrete data of this variety and is built around a latent regression of the following form:

$$y^* = x' \beta + \varepsilon \quad (3)$$

where x and β are standard variable and parameter matrices respectively and ε is a vector matrix of normally distributed error terms. Obviously predicted grades (y^*) are unobserved. However, the following were observed:

$$y = 1 \text{ (core poor)} \quad \text{if } y^* \leq 0 \quad (4)$$
$$y = 2 \text{ (moderately poor)} \quad \text{if } 0 < y^* \leq \mu_1 \quad (5)$$
$$y = 3 \text{ (non-poor)} \quad \text{if } \mu_1 < y^* \leq \mu_2 \quad (6)$$

where for the *i* th individual, y_i is the observed outcome and X_i is a vector of explanatory variables. The unknown parameters β_j are typically estimated by maximum likelihood.

y = Poverty category, (1 = core poor, 2 = moderately poor, 3 = non-poor).
X_1 = Sex (male = 1, female = 0).
X_2 = Age (years).
X_3 = Marital Staus (Married = 1, otherwise = 0).
X_4 = Household size (number of persons in the household).
X_5 = Number of years of schooling (years).
X_6 = Farming experience (years).
X_7 = Farm size (hectares).
X_8 = Access to credit (Yes = 1, No = 0).
X_9 = Income before migration (actual amount in ₦).
X_{10} = Income after migration (actual amount in ₦).

μ_1 and μ_2, are the cut points i.e. the threshold variables in the probit model.

The threshold variables are unknown and they indicate the discrete category that the latent variable falls into. They are determined in the maximum likelihood estimation procedure for the ordered probit. The model becomes useful given the distribution of the dependent variable as concerned in the analysis. This model has been extensively used in studies like Afees (2016) and Della Lucia et al., (2013).

V. Results and Discussion

The socio-economic characteristics of the respondents are presented in the Table 1, about 54 percent of the cassava farmers were between 31 and 50 years' age range. The average age in the study area is 46.58 years. This shows that most of the farmers are in their economic active age regardless of UNDP (2015) report that life expectancy of Nigerians is 53.1 years. The result also reveals that 38.14 of the respondents spent between 7 and 12 years in secondary education while only 7.38 percent spent 18 years and above learning (postgraduate education). However, about 20 percent of the respondents had no formal education. The average years spent in school is about 8 years which is a year less than the minimum prescription of nine years' basic education for educational policy in Nigeria. This is an indication that an average respondent had six years of primary school and two years of post-primary education. This result is in line with the findings of a study conducted by Salimonu (2007).

The average household size in the study area is 6, which falls into the group of household that have the highest representation (56.09%) in household size, that is, households with 4 to 6 members. Twenty percent of the farmers have more than 9 household members. The average farm size in the study area is only 1.9 hectares which showed that farming activities were in the hands of small holder farmers. The married respondents account for 80.45 percent of the total population studied.

Most of the cassava farmers in the study area were males having a representation of 68.27 percent of the total population for the study. In addition, about 25 percent of the respondents do not engage in agriculture production as a primary source of livelihood, while 62.5 percent engage in crop production either as primary or secondary occupation. Reasons given by majority of the respondents for involvement in agriculture is basically for income generation (87.18%) while about 10 percent of them claimed they practice agricultural activities for household consumption. This is an indication that majority of the respondents in the study area engage in agricultural activities either as primary or secondary income generating activity. Comparatively, the average income generated (₦182, 648) after youth migration away from home reduced to what was obtained when they were available (₦213, 101). Also the percentages of respondents for the income categories considered in the study decreased with increase in income generated after youth migration.

Table 1. Socio Economic Characteristics of respondents.

Variable	Freq.	Percent	Mean ± Std. Dev.	Variables	Freq.	Percent
Age < = 30	38	12.18	46.58	**Sex**		
31-40	84	26.92	±13.95	Female	99	31.73
41-50	86	27.56		Male	213	68.27
51-60	57	18.27				
>60	47	15.06		**Marital status**		
Household size			6.48	Single	32	10.26
<=3	25	8.01	±3.00	Married	251	80.45
4 -6	175	56.09		Widowed	16	5.13
7 -9-	49	15.71		Divorce	13	4.17
>9	63	20.19				
Farm experience			18.12	**Primaryoccupation**		
<=10	105	33.65	±11.85	Farming	232	74.35
11-20	76	24.36		Civil service	45	14.42
21-30	77	24.68		Trading	17	5.45
31-40	48	15.38		Artisan	18	5.77

>40	6	1.92				
Education			8,02	**Secondary Occupatio**		
<=0	63	20.19	±5.33	Farming	99	31.73
1- 6	74	23.72		Trading	100	32.05
7- 12	119	38.14		Artisan	113	36.21
13-17	54	17.31				
>17	2	0.64		**Farm activities**		
Farm size			1.91	Animal husbandry	99	31.73
<=0.5	70	22.44	± 1.97	Fish farming	5	1.6
0.51-1.0	115	36.86		Crop husbandry	195	62.5
1.1-1.50	4	1.28		Mixed farming	13	4.17
1.51-2.0	47	15.06				
>2.0	76	24.36				
				Reason for farming		
Credit access				Family consumption	30	9.61
Yes	174	55.77		Farming as a hobby	10	3.4
No	138	44.23		Income generation	272	87.18
Income before migration			213,101	**Income after migration**		**(182,648)**
<=100000	119	38.14	±210,173	<=100000	162	51.92
100001-150000	38	12.18		100001-150000	29	9.29
150001-300000	97	31.09		150001-300000	78	25. 00
300000-450000	19	6.09		300000-450000	13	4.17
>450000	39	12.5		>450000	30	9.61
Total	**312**	**100**		**Total**	**312**	**100**

Source: Field survey, 2017

VI. Roles of Youth in Cassava Farming

The roles youth played in cassava production activities is presented in Table 2. Majority of the respondents agreed to the fact that youth helped in land clearing activities for cassava production. This accounted for about 96 percent and with a weighted mean score (WMS) of 3.44 ranking highest among all the roles taken up by youth. Planting activities which is a rigorous activity ranked second with a WMS of 3.01. About 37 percent of the farmers disagreed that the youth assist in chemical application to their farmland this may be due to inexperience in chemical application. However, this ranked third with WMS of 2.98. Ridge making for cassava stem and harvesting of cassava ranked fifth with a WMS of 2.88. Obviously these are activities that requires youthful strength to be done with less stress.

About 42 percent of the cassava farmers disagreed on the roles youth can play with marketing of the cassava harvested. This may be due to inexperience in marketing strategies used by farmers in selling out their cassava. Roles such as drawing attention of the government or non-governmental bodies to farmers need, sourcing for farm inputs to be used during production activities, accessing funds for farm use and youths' involvement in agricultural programmes accounted for ninth, twenth, eleventh and twelfth position in the ranking with WMS of 2.62, 2.61, 2.56 and 2.50 respectively. This is an indication that youth involvement in cassava production may limited to the energy dissipated during farming activities. Youths were less needed in all other activities as revealed by the result.

Table 2. Roles of youth in cassava farming.

Youth Activities in cassava production	Strongly agreed	Agreed	Disagree	Strongly disagreed	Weighted mean score	Rank
Land clearing	151 (48.40)	150 (48.08)	3 (3.53)	0 (0.0)	3.44	1
Ridge making	112 (35.90)	67 (21.47)	117 (37.50)	16 (5.13)	2.88	5
Planting	133 (42.63)	56 (17.95)	115 (36.86)	8 (2.56)	3.01	2
Chemical application	141 (45.19)	47 (15.06)	115 (36.86)	9 (2.88)	2.98	3
Weeding	133 (42.63)	50 (16.03)	105 (33.65)	24 (7.69)	2.93	4
Harvesting	120 (38.46)	66 (21.15)	95 (30.45)	31 (9.94)	2.88	5
Haulage	99 (31.73)	90 (28.85)	97 (31.09)	26 (8.33)	2.84	7
Marketing output	90 (28.85)	88 (28.21)	107 (34.29)	27 (8.65)	2.77	8
Govt./NGOs attention	61 (19.55)	92 (29.49)	137 (43.91)	22 (7.05)	2.62	9
Source for farm input	34 (10.9)	145 (46.47)	111 (35.58)	22 (7.05)	2.61	10
Source for loans	35 (11.22)	120 (38.46)	140 (44.87)	17 (5.45)	2.56	11
Involvement in agricultural programmes	49 (15.71)	79 (25.32)	164 (52.56)	20 (6.41)	2.50	12

Source: Field survey, 2017.

VII. Labour Strategies Adopted by Cassava Farmers

The strategies adopted by cassava farmers are presented in Table 3. Results showed that more than half of the farmers (54.81%) attested to the fact that youth migrated from their various households to another locations. About 81 percent of them testified to the fact that they are experiencing labour constraints in their various farms in the study area. Among the strategies used by the farmers to solve the labour shortage issues were hiring of labour as claimed by 26.61 percent. About 50 percent of the respondents indicated that they used more of family labour while the least strategy adopted was working with other cassava farmers on their farmland (7.69%).

Considering the farm labour use in the study area in the past five years, use of hired labour accounted for 55 .13 percent, family labour recorded 33.97 percent with the least being communal labour (10.90%). This is when efforts are contributed by different farmers to work in group on various farmland, provided the farmland owner is a member of the team providing the labour. Presently, with the issue of migrant youth, less use of hired labour is recoded (27.89%), this is about 100% reduction in what obtained five years ago. Also, the use of family labour for cassava production increased comparatively (52. 24%), while communal labour contribution also increased (19.89%). This is an indication that migration of youth from the study area reflected on the labour contribution activities of cassava production.

Further results on the sources of labour showed that about half of the hired labourers were non-indigenes in the study area while 32.37 percent of the hired labour accounted for non-migrant youths. It is worthy to note that about 5 percent of the cassava farmers worked as hired labour on other people's farm, perhaps to increase their income or use to maintain their own farmland.

Table 3. Cassava farmers labour strategies adopted.

Labour strategies	Freq.	Percent
Occurrence of youth migration		
Yes	171	54.81
No	141	45.19
Experience labour constraint due to migration		
Yes	253	81.09
No	59	18.91
Strategy of solving labour problem		
Hiring labour	83	26.61
Use of family labour	155	49.68
Work with co farmers	24	7.69
Reduction of farmland	50	16.02
Source of farm labour in the last 5 years		
Hired	172	55.13
Family	106	33.97
Communal	34	10.9
Present source of farm labour		
Hired	87	27.89
Family	163	52.24
Communal	62	19.87
Hired labour source		
Non indigene	196	52.56
Non migrant youth	101	32.37
Fellow famers	15	4.81
Total	**312**	**100**

Source: Field survey, 2017

VIII. Reason for Youth Migrating away from Study Area

The perceived reasons for migration of the youth from their households are presented in Table 4. The results revealed that 47.47 percent of the respondents strongly agreed that youth migrated because of their laziness towards farm activities while 29.81 disagreed with this fact. About 35 percent strongly agreed that the drudgery nature of farming was the reason why the youth migrated away from the area. However, 32 percent of the farmers disagreed on that. About 54, 53 and 50 percent of the farmers agreed that youth migrated from the area because of unavailability of farmland, poor crop yield and inadequate knowledge about farming activities respectively. Almost half of the farmers (49%) agreed that communal conflict necessitated the migration of youth while 47. 76 percent of them attested that youth migrate due to outbreak of disease in the area.

About 44 percent of the farmers disagreed that youth migrate out of the area for better employment opportunity. Other reasons perceived by the farmers for migration of youth are to join spouse in different location (WMS of 2.77), which ranked fifth among reasons given, better education which ranked eleventh with a weighted mean score of 2.62. The least of the ranking for perceived reasons for youth migration is poor health facilities. This ranked 13th and had a WMS of 2.51. It can be deduced from the result that many youths migrated to another location based on different reasons apart from farming activities.

Table 4. Respondents perceived reasons for migrating away from household residency.

Reasons for migration	Strongly agreed	Agreed	Disagree	Strongly disagreed	Weighted Mean Score	Rank
Laziness to farm activities	145 (47.47)	57 (18.27)	93 (29.81)	17 (5.45)	3.06	1
Drudgery in farm activities	108 (34.62)	92 (29.49)	99 (31.73)	13 (4.17)	2.95	2
Unavailability farmland	46 (14.74)	168 (53.85)	77 (24.68)	21 (6.73)	2.83	3
Poor crop yield	38 (12.18)	165 (52.88)	91 (29.17)	18 (5.23)	2.76	6
Low returns to farm	59 (18.91)	134 (42.95)	96 (30.77)	23 (7.37)	2.76	6
Inadequate knowledge about farming activities	42 (13.46)	157 (50.32)	91 (29.17)	22 (7.05)	2.72	8
Better employment opportunities	70 (22.44)	73 (23.40)	136 (43.59)	33 (10.58)	2.58	12

Reasons for migration	Strongly agreed	Agreed	Disagree	Strongly disagreed	Weighted Mean Score	Rank
Further Education	73 (23.4)	79 (25.32)	128 (41.03)	32 (10.26)	2.62	11
Apprenticeship	37 (11.86)	84 (26.92)	156 (50.00)	35 (11.22)	2.39	14
Lack of amenities	82 (26.28)	68 (21.79)	137 (43.91)	25 (8.01)	2.66	9
To find/join life partner	64 (20.51)	118 (37.82)	123 (39.42)	7 (2.24)	2.77	5
Diseases outbreak	34 (10.90)	149 (47.76)	115 (36.86)	14 (4.49)	2.65	10
Poor health facilities	31 (9.94)	108 (34.62)	163 (52.24)	10 (3.21)	2.51	13
Communal conflict	48 (15.38)	153 (49.04)	109 (34.94)	2 (0.64)	2.79	4

Source: Field survey, 2017

IX. Benefits Derived by Households from Youth Migration

Although migration of youth away from home may reduce the use of labour for farming activities but there are other benefits attached to it. The benefits derived from youth migration are as shown in Table 5. Seventy-two percent of the farmers agreed to the economic benefit in terms of provision of money to purchase drug for health purposes. This ranked highest in the benefit accruing from youth migration. Next to this rank is the agreement that migrant youth provide varieties of improved cassava stem on their return home as well as availability of more farmland for cassava production with ranked third (64%). This may have been due to the economic power they were able to acquire while away from home.

Fifty-eight percent of the farmers agreed that migrant youth teach them methods of pest and disease control though 28 percent of them disagreed to this fact. About 46 and 41 percent of the farmers agreed that retuning youth migrants invest large sum of money on cassava production and serve as a linkage between them and extension officers in the dissemination of vital information to improve cassava farming respectively. Both benefit ranked fifth with WMS of 2.78.

On the hand, 51 percent of the cassava farmers disagreed that retuning youth migrants stimulate cultural innovations and technological changes in cassava farming. This ranked tenth with a WMS of 2.61. Next to this is the disagreement that returnees help to improve social conditions of farmers (47.44%) and reliefs the household of her responsibilities on the actual migrant (41.99%). This has a WMS of 2.64 and 2.70 with a rank of ninth and seventh positions. The least of the WMS are benefits in terms of improvement in standard of living of the farmers (2.86) which ranked eleventh and monthly payment of remittances to the farming household by the migrant youth (2.60) which ranked twelfth. The results also showed that migrant youth add a benefit to farming households left behind in one way or the other.

Table 5. Benefits farming household derived from youth migration.

Benefit of migration	Strongly agreed	Agreed	Disagree	Strongly disagreed	Weighted mean score	Rank
Returning youth migrants invest large sums of money on cassava production	61 (19.55)	144 (46.15)	85 (27.24)	22 (7.05)	2.78	5
Pay monthly remittances to farming household	33 (10.58)	149 (47.76)	103 (33.01)	27 (8.65)	2.60	12
Migrant youth serve as a linkage between the farmers and extension agents in dissemination of vital information to improve cassava farming	60 (19.23)	127 (40.71)	121 (38.78)	4 (1.28)	2.78	5
Improvement in standard of living	29 (9.29)	162 (51.92)	116 (37.18)	5 (1.6)	2.68	11
Provision money for drugs to cater for healthy living	31 (9.94)	226 (72.44)	54 (17.31)	1 (0.32)	2.92	1
Availability of more farm land for cassava farming	33 (10.58)	202 (64.74)	75 (24.04)	2 (0.64)	2.85	3
Relieves the household of her responsibility on the migrant	39 (12.5)	141 (45.19)	131 (41.99)	1 (0.32)	2.70	7
Returning youth migrants stimulate cultural innovations and technological changes in cassava farming	47 (15.06)	100 (32.05)	160 (51.28)	5 (1.6)	2.61	10
Returnees help to improve social condition of farmers	42 (13.46)	119 (38.14)	148 (47.44)	3 (0.96)	2.64	9
Provision of improved stem varieties	40 (12.82)	202 (64.74)	66 (21.15)	4 (1.28)	2.89	2
Youth migrant teach farmers methods of pest/disease control	39 (12.5)	181 (58.01)	90 (28.85)	2 (0.64)	2.80	4
Migrant tells you how to source for credit facilities in town/city	61 (19.55)	112 (35.90)	136 (43.59)	3 (0.96)	2.70	7

Source: Field survey, 2017

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X. Categorization of Households According to their Welfare Status

The households were categorized into three on a measure of *per capita* expenditure (PCE) of households on food and non – food items as presented in Table 6. The core poor households have a mean PCE of ₦2,182.23 monthly representing only 10.34 percent of the total mean PCE for the study area. This mean PCE increased cross the table. The moderately poor households have a mean PCE which is more than double the percentage of the core poor category (24.88%). The non-poor households have a mean PCE value of ₦13,675.99 which accounted for 43.28 percent of the total mean. This mean PCE value is over 400% and about 200% percent of mean PCE for core poor and moderately poor households. This is an indication that a large disparity existed in the expenditure patterns for the different categories considered. The mean PCE for the households in the study area is ₦9, 919.53 monthly.

Table 6. *Per capita* Expenditure (PCE) distribution for the poverty categories

Poverty Categories	Frequency	percent	Mean PCE (₦)	Exp. distrbn (%)
Core poor	47	15.06	2,182.23	10.34
Moderately poor	146	46.80	5,252.03	24.88
Non-poor	119	38.14	13,675.99	43.28
Total	**312**	**100.0**	**21,110.25**	**100.00**
Mean			***9,919.53***	

Source: Field survey 2017

XI. Youth Migration and Household Poverty

The results of the two-stage least square are as presented in Table 7 and 8. According to the first-stage output, age, sex, drudgery and apprenticeship positively influence migration. In effect, aged male farmers, the more the drudgery experienced and the more the youths are looking for apprenticeship, the more likely the youth will migrate from the rural settlements. Also, in the first-stage output, farm size, laziness and lack of amenities negatively influence migration. With increase in farm size, the more likely the reduction in migration of the youth from the rural area. The expansion in farm size implies additional farms to cultivate and more available work that will require additional needed labour. Also, increase in laziness on the part of the youth and provision of amenities in the rural will reduce the youth migration of youth out of the study area.

The results revealed that the youth migrate away from home for various reasons and this have its effect on the general welfare of the household. The estimate of the second stage of the 2SLS where migration was controlled for revealed that outward movement of youth from home significantly affected the poverty status of the farming households (P<1%). An endogeneity Hausman test was conducted to determine whether or not the difference between the two estimators is statistically significant. Since the P-value, i.e. 0.0688 < 0.1, the null hypothesis was rejected at 10% significance level. It is therefore accepted that there is difference between the two estimators because OLS estimates is not consistent therefore 2SLS is favoured.

Table 7. First-stage regressions estimates.

migratn_dummy	Coef.	Std Err.	t	P>|t|
age	0.0121***	0.0035	3.44	0.001
sex	0.1436**	0.0608	2.36	0.019
hhdsize	-0.0086	0.0123	-0.7	0.484
schoolyrs	-0.0062	0.0083	-0.75	0.453
farmgexp	0.0038	0.0042	0.89	0.373
farmsize	-0.0358*	0.0186	-1.92	0.056
creditacc	0.0247	0.06	0.41	0.681
edulevel	-0.0054	0.033	-0.16	0.871
laziness	-0.1417	0.0457	-3.1	0.002
drudgery	0.1417**	0.0543	2.61	0.01
pooryield	0.0518	0.0407	1.27	0.204
lowreturns	0.0201	0.0445	0.45	0.652
employment	-0.0462	0.0504	-0.92	0.36
furthereduc	0.0509	0.0539	0.94	0.346
apprentice	0.1122**	0.0473	2.37	0.018
lackamenities	-0.1493***	0.0439	-3.4	0.001
_cons	-0.1367	0.2104	-0.65	0.516
Source	SS	df	MS	
Model	18.4037	16	1.1502	
Residual	58.8751	295	0.1996	
Total	77.2788	311	0.2485	
No. of obsv	312	Prob>F	0.0000	
F(16, 295)	5.76	R-sqrd	0.2381	
Root MSE	0.44674	AdR-sqr	0.1968	

***, **, * (significant at 1, 5 and 10 respectively).
Source: Estimates from 2SLS analysis.

Table 8. Instrumental variables (2SLS) regression estimates

pce	Coef.	Std Err.	z	P>|z|
migratn_dummy	6246.4***	2323.1	2.69	0.007
age	-27.0	52.586	-0.51	0.607
sex	-2079.8**	805.95	-2.58	0.010
hhdsize	-631.8***	141.28	-4.47	0.000
schoolyrs	112.4	81.038	1.39	0.165
farmgexp	-283.1***	46.20	-6.13	0.000
farmsize	365.9*	220.16	1.66	0.097
creditacc	50.4	713.84	0.07	0.944
_cons	16776.1***	1836.5	9.13	0.000
No. of obsv	312		Rsqrd	0.33
Wald chi2(8)	183.45		RtMSE	5582.2
Prob > chi2	0.000			

Instrumented: Youth migration
Instruments: laziness, drudgery, poor crop yield, low returns, employment, further education, apprenticeship, lack of amenities.
Durbin (score) chi2(1) 3.40795 (p = 0.0649).
Wu - Hausman F(1,302) 3.33515 (p = 0.0688).

***, **, * (significant at 1, 5 and 10 respectively).
Source: Estaimates from 2SLS analysis.

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XII. Factors Influencing Poverty Status among Cassava Farmers in the Study Area

The result of the ordered probit used to investigate the determinant of the poverty status. The three poverty categories: core poor, moderately poor and non-poor formed the dependent variables while 10 explanatory variables were considered in the model. Six variables were statistically significant at 1% and 10% significance levels. They include sex, household size, farming experience, access to credit and income earned before youth migration. The likelihood ratio chi-square of 152.94 with a p-value of 0.0000 reveals that the model as a whole is statistically significant. Pseudo R squared is 0.2355. The cut off points or thresholds of -2.92 and -1.38 are the intercepts which define where the intervals for moderately poor and non-poor categories begin and end in the estimates respectively. The cut-points values are defined based on *a priori* or given criteria.

Sex significantly affects household poverty level at 1 percent level of significance. This implies that an increase in the number of male farmers will increase the probability to have an improved poverty status by 0.51 from core poor to moderately poor or from moderately poor to non-poor. This can be due to the fact that in African tradition the male is expected to provide for the household basic needs. Household size is also statistically significant at 1 percent level of significance. An increase in the number of persons living in a household will increase the probability of the household to be further impoverished by 0.17. This is in line with *a priori* expectation that increase in household size will raise the demands on income hence inability to meet up with households needs. Marital status is also statistically significant at 5 percent level of significance. A married farmer has the probability of improved poverty this implies that being married influences the household poverty status.

Farming experience negatively influence household poverty status at 1percent. This implies that an increase in the years of farming will reduce the probability of the household having improved poverty status by 0.03. This means as years of farming increases non-poor households have the tendencies of change in status to moderately poor and moderately poor households to core poor status. The reason for this cannot be far-fetched as increasing years of farm may equally affect the ability of the farmers to do tedious farming activities consequence upon migration of youth from household location. In addition, access to credit can influence household poverty status positively. This means an increase in access in the number of household that have access to funds can increase the probability of households having improved poverty status by 0.27. This is because availability of fund can bridge the gap created by the migration of youth away from home.

Furthermore, migration away from home had a negative influence on the poverty status of the cassava farmers. This indicates that as the number of migrants increases, the probability for the household to move out of poverty reduces by 0.56. This emphasized more of the activities or roles played by the youth in cassava production as their migration from home created a vacuum in cassava production activities. Lastly, income before migration positively influence household poverty status. A unit increase in the income earned before youth migration increased the probability of household having improved poverty status. This means that availability of the youth for cassava production activities will upgrade the household status.

The predicted marginal and elasticity of probability of the factors influencing the poverty level of the farmers as shown on the table revealed that the probability of having a better poverty status would increase by 8.4 percent for a unit increase in male farmers, 52 percent for a unit increase in those married and 0.6 percent for a unit increase in farming experience. However, the probability of the household to fall into poverty would increase by 4.9 percent increase in farmers with access to credit and 10.7 percent for households with migrant. It is worthy of note that farming households are more responsive to changes in sex, household size, being married, and having farming experience relative to other factors influencing poverty status in the study area.

Table 7. Result of the ordered probit for categories of poverty level

Poverty status	Coef.	Std. Err.	z	P>|z|
Sex	0.5070***	0.1637	3.1	0.002
Age	-0.0047	0.0099	-0.48	0.634
Hhdsize	-0.1700***	0.0320	-5.31	0
Marital stas	0.2846**	0.1376	2.07	0.039
Schoolyrs	0.0070	0.0175	0.4	0.691
Farmgexp	-0.0335***	0.0102	-3.27	0.001
Farmsize	-0.0293	0.0486	-0.6	0.546
Creditacc	0.2704*	0.1582	1.71	0.087
Migratn_dum	-0.5552***	0.1584	-3.51	0
Incomb4migratn	0.0000*	0.0000	1.83	0.068
IncomAFmigratn	0.0000	0.0000	-0.32	0.747
/cut1	-2.9256	0.4441		
/cut2	-1.3834	0.4197		

Number of obsv. = 312.
Pseudo R2 = 0.2355.
LR chi2 = 152.94.
Prob. > chi2 = 0000.
Log likelihood = 248.29117.

variables	dy/dx	z	ey/ex	z
Sex*	0.0839	3.26	0.5955	3.01
Age	0.0009	0.48	0.3774	0.48
Hhld size	0.0314	4.65	1.8952	4.96
Marital sta	0.5178	2.01	1.0013	2.04
Schoolyrs	-0.0013	-0.4	-0.0959	-0.4
Farmgexp	0.0062	3.11	1.0449	3.18
Far size	0.0054	0.6	0.0965	0.6
creditacc*	-0.0491	-1.71	-0.2058	-1.7
Migratn_ dum*	-0.1067	-3.23	-0.5235	-3.39
Incomb4migratn	0.0000	-1.8	-0.3314	-1.81
IncomAFmigratn	0.0000	0.32	0.0471	0.32

***, **, * (significant at 1, 5 and 10 respectively)
Source: Estimates from Ordered Probit model.

XIII. CONCLUSION

The study was able to establish the various roles the youth participated in cassava production and how their migration away from farming activities in search of a better economic opportunity has affected the agricultural sector especially in the rural areas of Nigeria. It should however be noted that farming households also benefitted in various ways from the migrant youth both economically and introduction of new techniques of farming. To cope with the limited labour availability; a consequence of migration, farmers developed different strategies to reduce the challenges. Among factors that influence poverty status of the rural farming households directly are farm size, access to credit and indirectly are lack of amenities, drudgery nature of farming and need to learn a trade among others. It is therefore recommended that provision of amenities and enabling environment that will foster farming activities should be promoted in the rural area to encourage youth hence, reduce migration activities. Credit facilities should be provided to improve farming level as this significantly affect farming households. These provisions will improve farmers' standard of living and they will thus make the youth stay back in the rural areas.

REFERENCES

[1] Adebisi G.l., Owolade E.O. and Jatto B.O. (2015). Factors influencing rural youths involvement in Cassava production in Oyo State. E3 Journal of Agricultural Research and Development Vol. 5(3). pp. 0128-0136.

[2] Adewale JG, Oladejo JA, Ogunniyi LT (2005). Economic Contribution of Farm Children to Agricultural Production in Nigeria: A case study of Ekiti State *J. Soc. Sci.* 10(2): 149 – 152.

[3] Afees A. Salisu (2016). Ordered Logit and Probit Models Centre for Econometric & Allied Research University of Ibadan. www.researchgate.net/profile/Afees_Salisu/publication/315786455_Analyses_of_ordered_logit_and_probit_models/links/58e4cb06a6fdcc6800ad8d35/Analyses-of-ordered-logit-and-probit-models.pdf

[4] **Albert U. Ofuoku* (2015).** Effect of Rural-Urban Migrants' Remittances on Arable Crop Production in Delta State, Nigeria. Journal of Agricultural Sciences Vol. 60, No. 1, 2015 Pp 49-59.

[5] Aphunu A, CN Atoma (2010). Rural Youths' Involvement in Agricultural Production in Delta Central Agricultural Zone: Challenge to Agricultural Extension Development in Delta State. Journal of Agricultural Extension, 14 (2): 46-55.

[6] Chikaire, J., Nnadi, F.N., Atoma, C., Egwuonwu, H.A., Echetama, J.A. (2012). Rural Youth Empowerment: A panacea to Rural-Urban Drift. A case study of Ethiope-East area of Delta State. Science Journal of Sociology and Anthropology, Vol 2012(10) pp 112-124.

[7] Della Lucia, S. M., Minim, V. P.R.,, Silva, C.H.O., Minim., L.A. and CIPRIANO., P.A (2013). Ordered probit regression analysis of the effect of brand name on beer acceptance by consumers. Food Sci. Technol, Campinas, 33(3): 586-591.

[8] Ekong EE (2003). An Introduction to Rural Sociology. Dove educational Publishers, Uyo, Nigeria. Falalu Bello (2007): Nigeria: One Country Four Economies Discussion Points. http:// www.gamji.com/article6000/NEWS7879.htm

[9] Faleyimu, O.I., 1,O. Akinyemi1, and B.O. Agbeja (2010): Incentives for Forestry Development in the South-West Nigeria. African Journal of General Agriculture Vol. 6, No. 2. Pp 68. http://www.asopah.org

[10] Friedman, Milton (1957). A theory of Consumption Function, Princeton. 25-57

[11] Lawal, A. S. and Okeowo, T. A. (2014), Effects of Rural Urban Migration on Labour Supply in Cocoa Production in Ondo East Local Government Area of Ondo State. *Academic Journal of Interdisciplinary Studies Vol 3 No 7*

[12] Mbah,E. N.,Ezeano, C, N and Agada, M. O (2016). Effects of rural-urban youth migration on farm families in benue state, nigeriaint. J. Agril. Res. Innov. & tech. 6 (1): 14-20. Available online at http://www.ijarit.webs.com

[13] Meyer, Bruce, Sullivan, Jim (2006). Three Decades of Consumption and Income Poverty. A Conference of National Poverty Center 'Consumption, Income and the Well-being of Families and Children', Washington, May 4-5, 2006.

[14] NPC (2006): National Population Commission: state population. www.population.gov.ng/component/content/article/89

[15] Mgbakor Miriam N., 2Uzendu Patrick O. and 1 Usifo Ifechukwude J. (2014) Effects of Rural–Urban Migration by Youths on Agricultural Labour in Aniocha South Local Government Area of Delta State, Nigeria. *Journal of Research in Agriculture and Animal Science Volume 2 ~ Issue 6 (2014) pp: 14-22.*

[16] Ojuekaiye EO (2001). Economic Analysis of Cassava Production in Three Local Government Areas of Kogi State. Unpublished M.Sc Thesis, Department of Agricultural economics and Rural Sociology, ABU, Zaria.

[17] Okeowo TA, Agunbiade JB, Odeyemi LA (1999). "An Assessment of the Level of Involvement of Farm-Children in Farming Decisions in Ikorodu Area of Lagos State." In Farm Children and Agricultural Productivity in the 21st Century Proceedings of the Second Annual Conference of Children-In-Agricultural Programme (CIAP) held at the Conference Centre, O.A.U., Ile-Ife (eds Stella, B.W.; Oginni, F.O. and Akinloye, J.F.). May. Pp. 275 – 282.

[18] Olayemi, J. K. (1998). Elements of Applied Econometrics. Elshaddai Global Ventures. Mokola. ISBN 978355162.

[19] Salimonu, K.K. (2007). Attitude to Risk in Resource Allocation among Food Crop Farmers in Osun State, Nigeria. An unpublished Ph.D thesis Submitted to the Department of Agricultural Economics. University of Ibadan, Ibadan.

[20] Tonukari NJ (2004). Cassava and the future of Starch. *E- Journal of Biotechnology.* Vol.7 No 1.

[21] UNPD (2015) Human Development for everyone. https://ndlink.org/2017/04/19/life-expectancy-in-nigeria-now-53-1-years-undp-report/

[22] White (2000) urban and social chase in West Africa by Cambridge University press New York.

[23] Yohanna Danladi Pam (2014). Rural-Urban Migration among Youths in Nigeria: The Impacts on Agriculture and Rural Development. *IOSR Journal of Humanities and Social Science (IOSR-JHSS) Vol 19 (3), PP 120-123.*