



Participation of Rural Youths in Cassava Production in Ifelodun Local Government Area of Kwara State, Nigeria.

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ABSTRACT

This study assessed the participation of rural youths in cassava production at Ifelodun Local Government Area of Kwara State, Nigeria. Data were obtained from 120 rural youth randomly selected using structured questionnaire administered by well-trained enumerators. Data collected were analyzed using descriptive statistics (frequency counts, percentage and mean) and inferential statistics (Probit regression model) as well as 5–point Likert scale. The results of the analysis revealed that majority (91.7%) of the respondents were less than 30 years of age with mean age of 25 years, 95.8% were males and 51.7% were married. About 93% of the respondents acquired formal education (primary, secondary and tertiary) with mean of 11 years in formal schooling. The mean household size was 3 members, while mean farming experience was 7 years. With respect to perception of the respondents about cassava production, they agreed that cassava production is an important source of income ($\bar{X} = 4.66$), it improves their livelihood ($\bar{X} = 3.80$) and that improved planting materials enhances output ($\bar{X} = 3.68$) ranked 1st, 2nd and 3rd, respectively. Land clearing and planting (99.2%), land tilling (98.3%), weeding (96.7%), harvesting (95.0%) and fertilizer application (80.0%) were the major cassava production activities performed by the respondents. Probit regression analysis revealed that marital status (1.965), farmland (1.744), credit (2.277) and extension services (2.009) were positive and significantly influences participation in cassava production. Problem of loan, Government policies and inadequate improved varieties (98.3%) were the major constraints faced by the respondents. In conclusion, most of the respondents were educated, married and participated in various cassava production activities, but they were constrained by finance and poor policies. Therefore, it was recommended that Government should make policies that will enhance rural youth participation in cassava production to boost output, while financial institutions should encourage young cassava farmers by giving them low interest rate loan for an increased production.

Keywords: Cassava production, participation, respondents, rural youth

INTRODUCTION

Agriculture is the backbone of most third world countries (i.e developing Nations). Agriculture provides over 80% of the total foreign exchange earning of Nigeria before the oil boom (late 1970s), and has served important and useful purpose in the industrial and economic sector of Nigeria (Adeniyi and Adeyemo, 2014). Agricultural sector is more popular in developing countries like Nigeria because it serves as major drive for national survival through provision of food and foreign exchange (Ugwu and Kanu, 2012).

Rural youth plays an important role in the development of the agricultural sector since they are the most effective and efficient part of the work–force. Adedoyin (2005) classified youth as people between the age grades of 19 – 40 years, while Aremu and Adeyemi (2013) classified youth as people between the age of 18 and 35 years. However, World Bank (2013) reported that person between 15 to 29 years are classified as youth. This group of individuals are the most efficient with respect to work–force which could be due to their mental and physical alertness. According to Ekong (2010), the youths serve as one of the most important part of the society because they are channels through which culture is transmitted and recognizable identity is perpetuated. They perform different roles with respect to agricultural activities such as planting, weeding, harvesting, processing and marketing etc.

Okwu *et al.* (2007) noted that youth are more exposed to new ideas and practices than older ones who have less response to new technologies or practices. They remain the bedrock on which every nation's development thrives (Arogundade, 2011). Youth participation in rural development activities could serve as a basis for improving their conditions especially this time around when the focus of economic development is on the utilization of natural resources. Some analysts (Akpan, 2010; Akpabio, 2012) believe that agricultural sector is naturally endowed with enormous potentials to absorb unemployment and surplus labour from other sector of the economy. Thus, youth need to be actively involved in agricultural production.

Cassava (*manihot esculenta*) was introduced to the Central Africa from South America in the 16th century by the Portuguese explorers as one of the most popular and highly utilized staple food in the history of man (FAO, 2000; Ohadike, 2007; Muhammed, 2015). Cassava is a major source of dietary carbohydrate that provides food for millions of people in Nigeria. It is also a significant source of protein, minerals and vitamins, contributing to food security and poverty alleviation (Akanbi *et al.*, 2006). Cassava has the ability to adapt and do well on poor soil than other crops that makes it one of the most popular crops in Africa. It is a major raw material for industries that use it in the production of starch, Ethanol, bread, adhesive, glucose and fructose syrup (Iyagba, 2010).

However, over the years, cassava production has not been in its optimal capacity in Nigeria, even after the introduction of different agricultural program and schemes such as Cassava Multiplication Program (CMP), Root and tuber expansion program (RTEP), Presidential Initiative on Cassava Production (PICP), National Accelerated Food Production Program (NAFPP), Operation Feed the Nation (OFN) and more, which are meant to change the orientation of youth in favour of cassava production (FAO, 2005; Iwuchukwu and Igbokwe, 2012).

Since the discovery of crude oil, the country has deviated from agriculture her main revenue source (Adeniyi and Adeyemo, 2014), which in turn has led to change in the orientation of rural youth. According to Akpabio (2012), the participation of rural youth in agricultural activities is gradually declining in recent years, even when there are high unemployment rate and abundance of agricultural jobs available, young people still migrate from the rural part of the country to urban settlement looking for scarce white collar jobs as a result leaves farming in the hands of the minority labour force which are children and aged people.

Many rural youth possess the qualities that can promote agriculture, but they have strange apathy toward it. Empowerment of rural youth towards cassava production could help boost production, thereby enhancing the economic situation of the youth as well as that of the community at large. It is against this backdrop that the study aimed to assess the participation of rural youth in cassava production in Ifelodun Local Government Area of Kwara State, Nigeria. Hence, the study described the socio-economic characteristics of rural youth in the study area; examined the perception of rural youth on cassava production and cassava production activities they perform; determined the factors that influences the participation of rural youth in cassava production, and identify the constrains faced by rural youth engaged in cassava production in the study area.

METHODOLOGY

Study Area

The study was carried out in Ifelodun Local Government Area of Kwara State, Nigeria. The area is located between latitude 7° 45' and 9° 30' North and longitude 2° 30' and 6°35' East of the equator (National Bureau of Statistics (NBC), 2010). Ifelodun is the largest Local Government Area of Kwara State with an estimated population of 206,042 and total land area of about 3,435Km² (National Population Commission (NPC), 2006). The area is characterized by dry and wet seasons with an annual rainfall of about 1000mm to 1500mm per annum and an average temperature of 30°C (Ajadi *et al.*, 2011). It is dominated by the Yoruba's mostly of Igbomina origin with root in Ife, Oyo and Ketu. The major source of livelihood and occupation of the people living in the area includes farming and petty trading. Cassava is one of the most important crops to the people. The two major local industries in the area are the shear butter industry and the Gari processing industry.

Sample Technique and Sample Size

A multi-stage sampling technique was used for the study. Stage one involved random selection of four communities (Agunjin, Idofian, Igbaja and Oke-ode) out of the nine communities from Ifelodun LGA. Stage two involved random selection of one village each from the above selected communities in the LGA (the villages selected are Abayawo, Ganmo, Owode and Iludun). Stage three involved proportionate sampling by 20% the sample frame based on the list of registered rural youth farmers into cassava production obtained from Kwara State Agricultural Developmental Project (KWADP) to get a total of 120 rural youths.

Method of Data Collection

Primary data were collected using structured questionnaire complemented by interview schedule from registered rural youth cassava farmers.

Method of Data Analysis

Both descriptive and inferential statistical tools were employed to achieve the objectives of this study. Objective i, ii and iv were achieved using descriptive statistics such as percentage, frequency count and mean, while objective iii was achieved using Probit regression model. However, 5–point Likert rating scale of strongly agree (5), agree (4), undecided (3), disagree (2) and strongly disagree (1) was used to measured and categorized the perception statements of objective ii.

Model specification

Probit model was used to determine the factors influencing the participation of rural youth in cassava production. The implicit form of the Probit regression model was given as:

$$Y = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8)$$

The general Probit regression model in its explicit form is expressed as below:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + e$$

Where;

Y = Participation of rural youths in cassava production (1 if participated, 0 if otherwise)

X₁ = Age (years)

X₂ = Marital status (married = 1, otherwise = 0)

X₃ = Household size (numbers)

X₄ = Education (years)

X₅ = Experience (years)

X₆ = Farm land (owned = 1, otherwise = 0)

X₇ = Access to credit (access = 1, otherwise = 0)

X₈ = Extension contact (contact = 1, otherwise = 0)

e = error term

α = model intercept

β₁ – β₈ = coefficients of the independent variables

X₁ – X₈ = independent variables

RESULTS AND DISCUSSION

Socio-Economic Characteristics of Respondents

The results from Table 1 shows that majority (91.7%) of the respondent were less than 30 years of age with a mean of 25 years. This implies that the respondents were actually youth farmers who are still in their active stage of production where they can contribute to the national development if adequately empowered. This is in agreement with the findings of Sunday *et al.* (2015) who reported that majority of the youth in their study area were in their mid-twenties years of age. Furthermore, majority (95.8%) of the respondent were males, while only 4.2% were females. This implies that males were the dominant in cassava production in the study area which could be due to the energetic demand of cassava production. Male farmers can do more of energy demanding farm activities especially cassava production. This agrees with the findings of Okwoche and Asogwa (2012) who posited that male dominance in cassava production is due to the labourious nature of cassava farming operations, while females were involved in other less stressful activities such as processing and marketing. Meanwhile, 51.7% of the respondents were married implying that more than half of the youth farmers have responsibilities and use the income realized from cassava production to carter for their household. This finding is in corroboration with that of Adebisi *et al.* (2015) who reported that most of the youths in their study area were married and have family to carter for.

In terms of household size, majority (75.8%) of the respondents had household sizes of less than 2 members, while 21.7% had household size between 2 – 5 members with mean household size of 3 members. This implies that the rural youths have relatively small household sizes which could be due to their young age. This is in agreement with the findings of Adebisi *et al.* (2015) who reported that 90.7% of the respondents in their study area had household size between 1 – 6 members in their family. About 93% of the respondents acquired formal education with respect to primary, secondary and tertiary education with a mean of 11 years of formal schooling. This implies that the respondents were educated with at least acquiring secondary education; hence they are literate which could help them to be innovative in terms of adopting agricultural technologies in cassava production. Therefore, empowering this group of people will help boost agricultural production with respect to cassava. This finding is in agreement with the work of Chikezie *et al.* (2012) who reported that respondents in their study area were educated and as a result enhance adoption of modern agricultural technologies.

Table 1: Socio-economic characteristics of the respondents (n = 120)

Description	Frequency	Percentage	Mean
Age (years)			
< 21	58	48.4	25
21 – 30	52	43.3	
31 – 40	10	8.3	
Sex			
Male	115	95.8	
Female	5	4.2	
Marital status			
Single	51	42.5	
Married	62	51.7	
Divorced	3	2.5	
Widowed	4	3.3	
Household size (number)			
< 2	91	75.8	3
2 – 5	26	21.7	
> 5	3	2.5	
Educational level			
Primary	28	23.3	11
Secondary	57	47.5	
Tertiary	27	22.5	
Non-formal	8	6.7	
Farming experience (years)			
1 – 5	4	3.3	7
6 – 10	78	65.0	
> 10	38	31.7	
Land acquisition			
Purchase	18	15.0	
Gift	11	9.2	
Inheritance	79	65.8	
Rent	12	10.0	

Source: Field Survey, 2016

The Table 1 also shows that majority (65.0%) of the respondents had farming experience between the ranges of 6 – 10 years with mean farming experience of 7 years. This implies that most of the respondents have been into cassava farming for quite some time and have the skills in cassava cultivation. This finding is in agreement with the work of Chikezie *et al.* (2012) who reported that most of the respondents in their study area had less than 10 years of farming experience. In terms of land acquisition for cassava farming, majority (65.8%) of the respondents inherited their land, 15.0% purchased their land, 10% rented their land and 9.2% of the respondents received their land as a gift. This implies that majority of the rural youth in the study area owned their farm land through inheritance which is the dominant way through which farmland is owned in the rural communities.

Perception of Rural Youth on Cassava Production

Perception here refers to the view of the rural youth with respect to cassava production which could in one way or the other influences their involvement in cassava production activities. As shown in Table 2, the respondents agreed that cassava production is an important source of income to rural youths ($\bar{X} = 4.66$) ranked 1st. This indicates that rural youths view income made from cassava production as a motivation to participate more in the production. They also agreed that cassava production improved their livelihood ($\bar{X} = 3.80$) ranked 2nd, implying that money made from participating in cassava production is use to improve their lives and that of their family. The respondents also agreed that improved planting material enhance output ($\bar{X} = 3.68$), various agricultural programmes help rural youths improve cassava production ($\bar{X} = 3.50$) and encouraging rural youths in farming could boost cassava production ($\bar{X} = 3.49$) ranked 3rd, 4th and 5th, respectively.

However, the respondents disagreed that rural youths are more into cassava production ($\bar{X} = 2.92$), cassava production is a stressful and tedious to the rural youths ($\bar{X} = 2.73$), cassava production is constraint by social and environmental factors ($\bar{X} = 2.52$), there are export opportunities for rural youths in cassava production ($\bar{X} = 2.40$) and most agricultural programmes are centred on rural youths in cassava production ($\bar{X} = 2.08$) ranked 6th, 7th, 8th, 9th and 10th, respectively.

Table 2: Perception of the Rural Youths on Cassava Production

Perception Statement	Weighted sum	Mean score	Remark	Rank
Cassava production is an important source of income to rural youths	559	4.66	Agreed	1 th
Cassava production improves the livelihood of rural youths	456	3.80	Agreed	2 nd
An improved planting materials enhances output of cassava production	442	3.68	Agreed	3 rd
Various agricultural programmes help rural youths improve cassava production	420	3.50	Agreed	4 th
Encouraging youths in farming will boost cassava production	419	3.49	Agreed	5 th
Rural youths are more into cassava production	351	2.92	Disagreed	6 th
Cassava farming activities or production is a stressful and tedious to rural youths	328	2.73	Disagreed	7 th
Cassava production is constrained by social and environmental factors	302	2.52	Disagreed	8 th
There are export opportunities for rural youths in cassava production	288	2.40	Disagreed	9 th
Most agricultural programmes are centred on rural youth in cassava production	250	2.08	Disagreed	10 th

Source: Field Survey, 2016

Cassava Production Activities perform by the Rural Youths

There are various forms of operations and activities involved in cassava Production. The result of the cassava production activities performed by the rural youths is presented in Table 3. As shown in the Table, Land clearing and planting (99.2%), Land tilling (98.3%), weeding (96.7%), harvesting (95.0%) and fertilizer application (80.0%) ranked 1st, 3rd, 4th, 5th and 6th, respectively, were the major cassava production activities engaged in by the respondents. Other cassava production activities include marketing (45.8%), processing (24.2%), storing (15.0%) and chemical application (7.5%) ranked 7th, 8th, 9th and 10th, respectively. Most of the cassava production activities are male dominated which could be as a result of the fact that most of the respondents were males. However, marketing, processing and storing of cassava produce are mostly viewed as a females job as they need few labour hours compared to land clearing and weeding. This finding agrees with the work of Chikezie *et al.* (2012) who reported that rural youths are actively involved in various cassava production activities. Rural youths are an embodiment of zeal, strength and innovativeness who should be encouraged as they perform their roles in nation building as well as sustaining the food security.

Table 3: Distribution of respondents based on cassava production activities performed

Farming activities	Frequency	Percentage	Rank
Land clearing	119	99.2	1 st
Planting	119	99.2	1 st
Land tilling	118	98.3	3 rd
Weeding	116	96.7	4 th
Harvesting	114	95.0	5 th
Fertilizer application	96	80.0	6 th
Marketing	55	45.8	7 th
Processing	29	24.2	8 th
Storing	18	15.0	9 th
Agro-chemical application	9	7.5	10 th

Source: Field Survey, 2016

Factors Influencing Rural Youth Participation in Cassava Production

Table 4 shows the result of Probit regression analysis of the factors influencing rural youth participation in cassava production. The result revealed Pseudo-R² of 0.6210, implying that about 62% variation in the rural youth participation in cassava production was explained by the independent variables provided in the model. The chi-squared value of 17.810 was significant at 1% probability level, implying goodness of fit of the overall model. Out of the eight independent variables in the model, four variables (marital status and farmland at 10% probability level, and access to credit and extension contact at 5% probability level) were statistically significant. The marital status (1.965) was positive and significant at 10% probability level, implying that a unit increase in marital status of the respondents will increase the probability of participating in cassava production. In other words, the more respondents are married, the more they participate in cassava production. This could be attributed to the fact that they have more responsibility to cater for which will influence them into cassava production. The farmland (1.744) was positive and significant at 10% probability level, implying that a unit increase in farmland of the

respondents will increase the probability of participating in cassava production. Large hectare of farmland usually enhances increase agricultural production resulting to high output. Therefore, availability of farmland to rural youth could influence their willingness to participate in cassava production. This is in corroboration with Adebisi *et al.* (2015) who reported that increase in farm sizes have been found to lead to increase in output as well as gross income of cassava farmers in Imo and Rivers state Nigeria.

Furthermore, credit (2.277) was positive and significant at 5% probability level, implying that a unit increase in access to credit by the respondents will increase the probability of participating in cassava production. Credit is an important factor of production which is very vital in every agricultural enterprise. It is used to acquire production inputs for better output. Therefore, accessibility to credit could influences the rural youth in cassava production. The extension contact (2.009) was positive and significant at 5% probability level, implying that a unit increase in extension contact by the respondents will increase the probability of participating in cassava production. This connotes that the more access to extension services by the rural youth, the more they will participate in cassava production. Meanwhile, with access to extension services, rural youth are likely to be exposed to production inputs, credit facilities and capacity building. This is in agreement with the finding of Sunday *et al.* (2015) who posited that extension contact has been shown to statistically influence participation in agricultural activities as well as adoption of agricultural technologies.

Table 4: Probit regression estimate of factors influencing rural youth participation

Variables	Coefficient	Standard error	t-value
Constant	-1.721	1.709	-1.007 ^{NS}
Age	0.056	0.058	0.966 ^{NS}
Marital status	1.118	0.569	1.965*
Household size	0.028	0.117	0.239 ^{NS}
Education	-0.056	0.398	-0.141 ^{NS}
Experience	0.021	0.048	0.044 ^{NS}
Farmland	0.497	0.285	1.744*
Access to credit	0.765	0.336	2.277**
Extension contact	0.657	0.327	2.009**
Pseudo-R ²	0.6210		
Chi ²	17.810***		
Log likelihood	-1003		

Source: Field Survey, 2016

**implies p<0.05, *implies p<0.10 and ‘NS’ implies Not Significant

Constraints of Rural Youth in Cassava Production

Table 5 revealed the constraints of the rural youth in cassava production. The constraints identified by majority (98.3%) of the respondents includes problem of capital, loan and finances, poor government policy and lack of improved varieties ranked 1st. Capital is an important factor needed to acquire or develop farm enterprise. This finding is in agreement with the result of Adebisi *et al.* (2015) who reported that majority (97.9%) of the respondents in their study area were constrained by inadequate fund for crop production. Other constraints identified were problem of processing facilities 97.5%, problem of pests and diseases 96.5%, and problem of storage facilities, problem of labour and youth migration and inadequate extension services 93.3% ranked 4th, 5th and 6th, respectively.

Furthermore, problem of transportation 92.5%, problem of marketing 88.3%, and problem of fertilizer and agro-chemical 85.0%, ranked 9th, 10th and 11th, respectively, were identified as constraints faced by the rural youth in cassava production. The least constraints was problem of land tenure system 22.5%, ranked 12th. This could be attributed to the fact that majority of the rural youth in the study area inherited their farmland, thus limiting the problem of land tenure. Generally, according to Adekunle *et al.* (2009), there are economic, social and environmental factors inhibiting rural youth participation in agricultural production in Nigeria.

Table 5: Constraint faced by rural youth in cassava production

Constrains	Frequency	Percentage	Rank
Problem of capital, loan and finances	118	98.3	1 st
Problem of government policy	118	98.3	1 st
Lack of improved varieties	118	98.3	1 st
Problem of processing facilities	117	97.5	4 th
Problem of pests and diseases	116	96.5	5 th
Problem of storage facilities	112	93.3	6 th
Problem of labour and youth migration	112	93.3	6 th
Inadequate extension services	112	93.3	6 th
Problem of transportation	111	92.5	9 th
Problem of marketing	106	88.3	10 th
Problem of fertilizer and agro-chemical	102	85.0	11 th
Problem of land tenure	27	22.5	12 th

Source: Field Survey, 2016

CONCLUSION

In conclusion, the respondents were actual youth engaged in cassava production with males as the dominant sex due to tedious nature of the production. Majority of the respondents acquired formal education and were relatively experienced in terms of cassava production. Most of the respondents perceived cassava production as an important source of income that improved their livelihood, while improved planting materials enhanced their output. Cassava production activities performed by the rural youth includes land clearing, planting, land tilling and weeding among various activities. Furthermore, marital status, farmland, access to credit and extension services were factors that significantly influence the participation of rural youths in cassava production in the study area, while major constraints identified were problem of capital, loan and finances, problem of government policies and lack of improved varieties for cassava production.

RECOMMENDATIONS

Based on the findings emanating from this study, the following recommendations were put forward:

Credit should be made available to youth involved in cassava production at low interest rate through appropriate financial institutions. Government should make good policies that will support rural youth participation in cassava production for increase output through relevant agricultural development programmes. Extension services should be enhanced by relevant stakeholders through recruiting more extension agents, and providing incentives and motivation for the available one to perform up to expectation. Government agencies and research institutes responsible for cassava production inputs particularly improved planting material should ensure that it is readily available and affordable to the rural youths to boost cassava production. In order to discourage rural youth migration, Government should encourage rural youth through proper orientation in cassava production and agricultural production at large to help ensure food security.

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