



## PROSPECTS OF RURAL YOUTHS PARTICIPATION IN FAMILY FARMING IN BENUE STATE, NIGERIA: IMPLICATIONS FOR POLICY

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### ABSTRACT

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The study was conducted in Benue State, Nigeria to assess prospects of rural youths participation in family farming. Data were collected from a sample of eighty (80) respondents using questionnaire/interview schedule. Frequency, percentage, mean score, standard deviation and factor analysis were used for analyzing data. Majority (75%) of the respondents were males, not married (63.70%), about 99% had formal education, having a mean age of 24 years. Major activities engaged by rural youths in family farming were clearing of farm lands ( $M = 2.62$ ), harvesting of crops ( $M = 2.61$ ), irrigating of farm lands ( $M = 2.39$ ), staking of crops ( $M = 2.35$ ), sorting/grading of farm produce ( $M = 2.35$ ), gathering of fruits ( $M = 2.34$ ) and applying fertilizer to crops ( $M = 2.33$ ). Results also indicate prospects of rural youths participation in family farming which include proper farm record keeping ( $M = 2.66$ ), increase in household food security ( $M = 2.60$ ), increase in farm labour ( $M = 2.58$ ), provision of market information for sales of farm produce ( $M = 2.58$ ), increase in household income ( $M = 2.55$ ), proper preservation of seeds and seedling/planting materials ( $M = 2.54$ ), increase on the use of modern farming techniques ( $M = 2.53$ ), increase in farm yields ( $M = 2.50$ ), among others. The study thus recommends that rural youths should be supported to remain in family farming through adequate provision of labour-saving technologies and modern farm implements to ease operations and ensure optimum productivity. It also highlights that efforts of service providers are needed in providing youths in rural areas with necessary infrastructure such as electricity in order to discourage them from migrating to urban areas.

**Contribution/Originality:** This study contributes in the existing literature to indicate that rural youths in family farming were mostly engaged in clearing of farm lands, harvesting of crops, irrigating of farm lands, staking of crops, sorting/grading of farm produce, among others. They should be provided with necessary farm inputs for optimum productivity.

### 1. INTRODUCTION

Youths constitute about 40% of the Nigerian population (National Population Commission (NPC), 2006) and are the major group much needed for family farming transformation. According to Ugwoke *et al.* (2005) youths have been part of the overall agricultural development process in Nigeria because of the immense contribution of agriculture to the economy.

Involvement of youths in family farms has the potential of reducing the problems of the ageing farm population and youth unemployment and this calls for securing the interest and participation of young people in agriculture in the form of deliberate shift in policy, training and promotion that specially targets the youths (Beyue and Ernest, 2013). The development of the family farming and the entire agriculture sector of the Nigerian economy therefore depends on the young people, more especially the rural youths.

Rural youths, smallholder and family farmers face numerous challenges in the prevailing times such as climate change and climate variability; lack of tenure security in a context of increasing competition for land and water; limited access to financial resources, inputs, technology, training, research and advisory services, education, price volatility (energy, food, etc.) and limited access to markets, etc (Jaiswa and Aditya, 2014).

Youths in family farming are faced with the challenge of not accessing the right information required for their farming activities at the right time. The lack of access to valuable and timely information is often linked to their geographical location, level of education and capacity building opportunities. Rural youths are often less literate than their urban counterparts and have less training opportunities on farm management and other areas which could help them scale-up their business sustainably.

This therefore raises the following questions. What are socio-economic characteristics of the respondents? What are activities engaged by rural youths in family farming? What are prospects of rural youths participation in family farming?

Specifically, the study was designed to:

1. describe socio-economic characteristics of the respondents;
2. identify activities engaged by rural youths in family farming; and
3. ascertain prospects of rural youths participation in family farming.

## 2. MATERIALS AND METHODS

The study was carried out in Benue State, Nigeria. Benue State was created in 1976 from the former Benue-Plateau state. It lies within the lower river Benue through the middle belt region of Nigeria. It shares boundaries with five other states namely; Nasarawa state to the North, Taraba state to the East, Cross-River state to the south, Enugu state to the South-West and Kogi state to the West. The state has a tropical climate made up of wet and dry seasons. The state has three agricultural zones, namely; Zone A (Eastern zone), Zone B (Northern zone) and Zone C (Central zone). Benue state has a land area of 2,882km<sup>2</sup> with a population of 4,253,641 people. The state is inhabited by the Tiv, Idoma and Igede as the major ethnic groups. The study area consists of twenty three (23) local government areas. Agriculture is the mainstay of the state. It has agricultural development potentials and the major crops produced are yam, cassava, rice, sesame, maize, sorghum, millet, groundnut, soybeans, fruits and vegetables.

The population of the study comprised youths who are actively involved in farming activities in Benue State, Nigeria. Benue State is divided into three (3) zones namely; A, B and C. Zone A which represents Benue North East was selected purposively for the study. Zone A comprises seven (7) Local Government Areas (LGAs) namely; Logo, Katsina-Ala, Konshisha, Kwande, Ukum, Ushongo and Vandeikya. Two (2) LGAs in zone A namely; Kwande and Ushongo were selected from the seven (7) LGAs using simple random sampling technique. Two (2) communities were selected from each of the LGAs, giving a total of four (4) communities namely; Mbakwen and Mbawer from Kwande LGA and Mbayegh and Utange from Ushongo LGA. Twenty (20) respondents were selected from each of the communities, giving a total of eighty (80) respondents used for the study.

Data were collected from primary source using a well structured questionnaire/interview schedule. The questionnaire was divided into three (3) sections (A-C) based on the specific objectives of the study. Section A focused on socio-economic characteristics of the respondents. Activities engaged by rural youths in family farming

were captured in section B, while section C centered on prospects of rural youths participation in family farming. Frequency, percentage, mean score, standard deviation and factor analysis were used for data analysis.

### 3. RESULTS AND DISCUSSION

#### 3.1. Socio-Economic Characteristics of the Respondents

Data in Table 1 show that about 75.00% of the respondents were males, while 25.00% of the respondents were females. This implies that there were more male youths in the study area who are involved in family farming. This may be as a result of strenuous nature of farming activities. This finding agrees with Okogun (2004) who stated that males are more interested in farming activities because of the tedious nature of it.

Majority (67.50%) of the respondents were within the age bracket of 21 - 40 years, while 32.50% falls within the age bracket of  $\leq 20$  years (Table 1). The mean age of the respondents was 24 years. This implies that the respondents were energetic and in their productive years, hence greater involvement in farming activities for economic empowerment. The finding is in line with Okwoche *et al.* (2012) who stated that youths in their active years are energetic and innovative to participate more in agriculture.

Majority (63.70%) of the respondents were single, while 36.30% were married. This implies that there were more unmarried youths participating in family farming than married youths in the study area. This finding disagrees with the study of Prosper *et al.* (2015) which stated that married youths have the potentials to participate more in agriculture due to the fact that they have more family responsibilities than unmarried youths.

Entries in Table 1 reveal that majority (73.80%) of the respondents had secondary education, while 13.80% and 11.30% had tertiary and primary education, respectively. The mean number of years spent in school was 11.36 years. This shows that majority of the respondents were literate. The need for education in agriculture cannot be over emphasized since the level of education of a farmer do not only increase his productivity but also enhances his ability to adopt innovations. The findings contradict (Beyue and Ernest, 2013) who noted that farmers do not need any formal education.

Results in Table 1 reveal that 55.00% of the respondents had a household size of 6 - 10 persons, while 23.80% had household size of 1- 5 persons, among others. The mean household size was 9.08 persons. It is advantageous to have a large household size because it provides labour used in family farming.

About 43% had 6-10 years of farming experience, while 21.30% and 18.80% had 11- 15 years and 1-5 years, respectively (Table 1). The mean farming experience was 10.50 years. This implies that respondents in the study area had been farming for quite a number of years and have acquired enough knowledge and experience in family farming. This finding agrees with Abdullahi *et al.* (2010) who reported that a good number of youths in family farming had farming experience of 10 years and above and acquired experience and skills through informal sources such as parents, relatives, neighbours, etc.

Entries in Table 1 show that 50.00% of the respondents had 1.1 - 2.0 ha of farmland, while 43.80% had less than 1.0 ha, among others. The mean farm size was 1.48 ha. This implies that the respondents had access to small portion of farmland which they use in farming activities. This agrees with Proctor *et al.* (2012) who noted that a large proportion of rural youths farm on a smaller scale which could be due to shortage of resources for production such as land, finance, labour, etc.

Data in Table 1 show that greater percentage (57.50%) of the respondents engaged in crop production, 36.30% engaged in both crop and livestock production, while 6.20% of the respondents were livestock farmers. This indicates that majority of the respondents engaged in crop production. This could enable them to ensure household food security and sustain their families economically.

Data in Table 1 reveal that majority (92.40%) of the respondents had farming as a major occupation, while 2.50% were carpenters, among others. This indicates that farming is the predominant occupation of the respondents

in the study area. This finding agrees with Abdullahi *et al.* (2010) who stated that majority of the youths in the study area had farming as their major occupation.

Results in Table 1 indicate that 41.30% of the respondents were petty traders, while 18.50% and 7.50%, were hair dressers and carpenters, respectively. This indicates that petty-trading is the predominant non-farm occupation of respondents in the study area. This may be attributed to the fact that petty-trading requires less start-up capital than other non-farm occupations which they need to be economically stronger to meet family responsibilities.

Majority (87.50%) of the respondents were not members of any formal organization, while 12.50% belonged to formal organizations (Table 1). This indicates that the respondents did not have interactions from formal organizations which may be necessary in improving productivity of family farming. Membership of formal organization could enhance putting resources together for easy access to credit facilities, production inputs and training opportunities for improved productivity. This study contradicts (Bello *et al.*, 2011) who stated that most youths in rice production were members of formal organization.

About 81.00% of the respondents did not have extension contact in the last one year, while 19.00% had extension contact. This may be attributed to low extension-farmer ratio in Nigeria. Lack of access to extension services deprives the youths opportunities of embracing the use of improved technologies that will boost their productivity in family farming.

Results in Table 1 also reveal that majority (90.0%) of the respondents did not receive remittance from family members/relatives, while 10.0% received remittance from family members/relatives. This indicates that many of the respondents did not receive remittance from family members/relatives which may lead to lack of proper and adequate farm resources/inputs such as land, fertilizer, agrochemical, etc.

Findings further show that those who received remittance from family members/relations 6.30% got less or equals to ₦5000, while 2.50% and 1.30% had ₦5001-₦10000 and above ₦10000.00, respectively with a mean score of ₦8125.00 (Table 1). This implies that the respondents were unable to get reasonable amount of money from their family members/relations annually which could assist them in buying farm inputs for greater productivity.

**Table-1.** Distribution of respondents according to socio-economic characteristics (n=80)

| Socio-economic characteristics    | Frequency | Percentage | Mean score |
|-----------------------------------|-----------|------------|------------|
| <b>Sex</b>                        |           |            |            |
| Male                              | 60        | 75.00      |            |
| Female                            | 20        | 25.00      |            |
| <b>Age (years)</b>                |           |            |            |
| ≤20                               | 22        | 32.50      |            |
| 21 – 40                           | 58        | 67.50      | 24.11      |
| <b>Marital status</b>             |           |            |            |
| Married                           | 29        | 36.30      |            |
| Single                            | 51        | 63.70      |            |
| <b>Level of education (years)</b> |           |            |            |
| No formal education               | 1         | 1.10       |            |
| Primary education                 | 9         | 11.30      | 11.36      |
| Secondary education               | 59        | 73.80      |            |
| Tertiary education                | 11        | 13.80      |            |
| <b>Household size (numbers)</b>   |           |            |            |
| 1 – 5                             | 19        | 23.80      |            |
| 6-10                              | 44        | 55.00      | 9.08       |
| 11-15                             | 9         | 11.20      |            |
| Above 15                          | 8         | 10.00      |            |
| <b>Farming experience (years)</b> |           |            |            |
| 1 – 5                             | 15        | 18.80      |            |
| 6-10                              | 34        | 42.50      | 10.50      |
| 11-15                             | 17        | 21.30      |            |

|                                                 |    |       |         |
|-------------------------------------------------|----|-------|---------|
| Above 15                                        | 14 | 17.40 |         |
| <b>Farm size (hectares)</b>                     |    |       |         |
| ≤1.0                                            | 35 | 43.80 |         |
| 1.1-2.0                                         | 40 | 50.00 | 1.48    |
| 2.1-3.0                                         | 2  | 2.40  |         |
| Above 3.0                                       | 3  | 3.80  |         |
| <b>Type of farming</b>                          |    |       |         |
| Crop production                                 | 46 | 57.50 |         |
| Livestock production                            | 5  | 6.20  |         |
| Mixed farming                                   | 29 | 36.30 |         |
| <b>Major occupation</b>                         |    |       |         |
| Commercial driver                               | 1  | 1.30  |         |
| Carpentry                                       | 2  | 2.50  |         |
| Farming                                         | 74 | 92.40 |         |
| Teaching                                        | 2  | 2.50  |         |
| Trading                                         | 1  | 1.30  |         |
| <b>Non-farm occupation</b>                      |    |       |         |
| Okada riding                                    | 7  | 8.80  |         |
| Hair dressing                                   | 15 | 18.50 |         |
| Carpentry                                       | 6  | 7.50  |         |
| Petty trading                                   | 33 | 41.30 |         |
| Road-side mechanic                              | 3  | 3.80  |         |
| Shoemaking                                      | 2  | 2.50  |         |
| Tailoring                                       | 4  | 5.00  |         |
| Teaching                                        | 7  | 8.80  |         |
| Commercial driving                              | 3  | 3.80  |         |
| <b>Membership of formal organization</b>        |    |       |         |
| Yes                                             | 10 | 12.50 |         |
| No                                              | 70 | 87.50 |         |
| <b>Contact with extension agents</b>            |    |       |         |
| Yes                                             | 15 | 19.00 |         |
| No                                              | 65 | 81.00 | 2.07    |
| <b>Remittance from family members/relations</b> |    |       |         |
| Yes                                             | 8  | 10.00 |         |
| No                                              | 72 | 90.00 |         |
| <b>Amount of money received (Naira)</b>         |    |       |         |
| ≤ 5000                                          | 5  | 6.30  |         |
| 5001-10000                                      | 2  | 2.50  | 8125.00 |
| Above 10000                                     | 1  | 1.30  |         |

Field survey, 2016

### 3.2. Activities Engaged by Rural Youths in Family Farming

Results in Table 2 indicate the activities mostly carried out by the respondents in family farming which include clearing of farm lands ( $M = 2.62$ ), harvesting of crops ( $M = 2.61$ ), irrigating of farm lands ( $M = 2.39$ ), staking of crops ( $M = 2.35$ ), sorting/grading of farm produce ( $M = 2.35$ ), gathering of fruits ( $M = 2.34$ ) and applying fertilizer to crops ( $M = 2.33$ ). Others were feeding of animals ( $M = 2.31$ ), sowing of seeds/planting materials ( $M = 2.29$ ), dressing of crops for storage ( $M = 2.29$ ), stumping of trees on farm land ( $M = 2.25$ ), cutting of fodder for feeding goats, sheep and cattle etc ( $M = 2.23$ ), manual weeding of farm land ( $M = 2.20$ ) and digging of drainages on the farm ( $M = 2.19$ ), among others (Table 2). The standard deviation for most of the variables was mostly less than 1, while a few others were above 1. This shows the disparity in terms of the responses on activities of rural youths in family farming. This implies that these rural youths participate fully in farming activities. This may be because they were born into farming and have developed skills needed for the practices. This finding agrees with Prosper *et al.* (2015) who noted that young farmers are directly involved in farming activities through planting, weeding, livestock keeping and harvesting, among others.

**Table-2.** Mean score of respondents according to activities engaged in family farming

| Farming activities                                               | Mean score | Std. deviation | Level of participation |
|------------------------------------------------------------------|------------|----------------|------------------------|
| Site selection                                                   | 2.45       | 0.87           | High                   |
| Clearing of farm lands                                           | 2.62       | 0.66           | High                   |
| Stumping of trees on farm land                                   | 2.25       | 0.86           | High                   |
| Cuting of fodder for feeding goats, sheep and cattle             | 2.23       | 0.91           | High                   |
| Soil tillage such as making ridges, mounds, etc                  | 2.18       | 1.06           | High                   |
| Sowing of seeds/planting materials                               | 2.29       | 0.79           | High                   |
| Irrigating of farm lands                                         | 2.39       | 0.78           | High                   |
| Digging of drainages on the farm                                 | 2.19       | 0.99           | High                   |
| Manual weeding of farm lands                                     | 2.20       | 0.87           | High                   |
| Applying fertilizer to crops                                     | 2.33       | 0.82           | High                   |
| Staking of crops such as yams, beans, etc                        | 2.35       | 0.74           | High                   |
| Application of agrochemicals such as herbicides, pesticides, etc | 2.01       | 1.06           | High                   |
| Detuberization of yams                                           | 2.06       | 0.97           | High                   |
| Harvesting of crops                                              | 2.61       | 0.64           | High                   |
| Gathering of fruits                                              | 2.34       | 0.84           | High                   |
| Making of storage barns for yams                                 | 2.09       | 0.93           | High                   |
| Sorting/grading of farm produce                                  | 2.35       | 0.78           | High                   |
| Dressing of crops for storage                                    | 2.29       | 0.78           | High                   |
| Milling of farm produce                                          | 2.04       | 1.04           | High                   |
| Driving of farm tractors                                         | 1.03       | 1.21           | Low                    |
| Operating of farm equipment e.g knapsack sprayer                 | 2.03       | 1.26           | High                   |
| Haulage of farm produce                                          | 2.11       | 0.79           | High                   |
| Feeding of animals                                               | 2.31       | 0.88           | High                   |
| Herding/shepherding of animals                                   | 1.82       | 1.00           | High                   |
| Cleaning of pens                                                 | 1.97       | 1.03           | High                   |
| Brooding of chicks in poultry farm                               | 1.58       | 1.10           | High                   |
| Collection of eggs in poultry farm                               | 1.65       | 1.14           | High                   |
| Milking of dairy animals                                         | 1.22       | 1.13           | Low                    |

Field survey, 2016

### 3.3. Factor Analysis of Activities Engaged by Rural Youths in Family Farming

Results in Table 3 represent factor analysis of activities engaged by rural youths in family farming. Based on the item loadings, factors 1, 2 and 3 were named agronomic practice, manpower and production factors, respectively. Variables which loaded high under agronomic practice were clearing of farm lands (0.52), stumping of trees on farm land (0.53), cutting of fodder for feeding goats, sheep and cattle (0.57), soil tillage such as making of ridges, mounds, etc (0.73), digging of drainages on the farm (0.85), staking of crops such as yams, beans, etc (0.57), application of agrochemicals such as herbicides, etc (0.63), making of storage barns for yams (0.56) and operating of farm equipment such as knapsack sprayer (0.51).

Loadings under manpower factor were driving of farm tractors (0.62), feeding of animals (0.40), cleaning of pens (0.49), brooding of chicks in poultry farm (0.74), collection of eggs in poultry farm (0.77) and milking of dairy animals (0.73). Production factor comprised sowing of seeds/planting materials (0.55), irrigating of farm land (0.56), manual weeding of farm land (0.96), detuberization of yams (0.47), harvesting of crops (0.62), sorting/grading of farm produce (0.59) and dressing of crops for storage (0.46).

The three factors which loaded high based on the activities of rural youths in family farming agrees with [Adedoyin \(2005\)](#) who noted that youth's potentials to contribute in all aspects of agriculture must be enhanced and sustained as necessary endeavour for ensuring food security in the nation.

**Table-3.** Factor analysis of activities engaged by rural youths in family farming

| Farming activities                                               | Factor 1<br>(Agronomic<br>practice) | Factor 2<br>(Manpower) | Factor 3<br>(production) |
|------------------------------------------------------------------|-------------------------------------|------------------------|--------------------------|
| Site selection                                                   | 0.398                               | -0.043                 | 0.350                    |
| Clearing of farm lands                                           | 0.520                               | -0.180                 | 0.293                    |
| Stumping of trees on farm land                                   | 0.537                               | 0.047                  | 0.366                    |
| Cuting of fodder for feeding goats, sheep and cattle             | 0.576                               | 0.131                  | 0.080                    |
| Soil tillage such as making ridges, mounds, etc                  | 0.735                               | 0.108                  | 0.035                    |
| Sowing of seeds/planting materials                               | 0.053                               | 0.069                  | 0.552                    |
| Irrigating of farm land                                          | 0.112                               | 0.005                  | 0.560                    |
| Digging of drainages on the farm                                 | 0.850                               | 0.129                  | 0.147                    |
| Manual weeding of farm land                                      | -0.096                              | -0.037                 | 0.960                    |
| Applying fertilizer to crops                                     | 0.175                               | 0.390                  | 0.352                    |
| Staking of crops such as yams, beans, etc                        | 0.573                               | 0.323                  | 0.268                    |
| Application of agrochemicals such as herbicides, pesticides, etc | 0.630                               | 0.029                  | -0.114                   |
| Detuberization of yams                                           | 0.015                               | -0.003                 | 0.470                    |
| Harvesting of crops                                              | 0.016                               | -0.080                 | 0.629                    |
| Gathering of fruits                                              | 0.152                               | -0.117                 | 0.367                    |
| Making of storage barns for yams                                 | 0.567                               | -0.030                 | 0.210                    |
| Sorting/grading of farm produce                                  | 0.138                               | 0.056                  | 0.594                    |
| Dressing of crops for storage                                    | 0.123                               | 0.370                  | 0.466                    |
| Milling of farm produce                                          | 0.264                               | 0.256                  | 0.348                    |
| Driving of farm tractors                                         | -0.018                              | 0.627                  | 0.010                    |
| Operating of farm equipment e.g knapsack sprayer                 | 0.515                               | 0.208                  | -0.154                   |
| Haulage of farm produce                                          | 0.376                               | 0.173                  | 0.193                    |
| Feeding of animals                                               | 0.299                               | 0.402                  | -0.165                   |
| Herding/shepherding of animals                                   | 0.489                               | 0.594                  | -0.115                   |
| Cleaning of pens                                                 | 0.346                               | 0.493                  | 0.039                    |
| Brooding of chicks in poultry farm                               | 0.002                               | 0.748                  | 0.078                    |
| Collection of eggs in poultry farm                               | -0.110                              | 0.771                  | -0.033                   |
| Milking of dairy animals                                         | 0.185                               | 0.735                  | -0.039                   |

Field survey, 2016

### 3.4. Prospects of Rural Youths Participation in Family Farming

Results in Table 4 show prospects of rural youths participation in family farming which include proper farm record keeping ( $M = 2.66$ ), increase in household food security ( $M = 2.60$ ), increase in farm labour ( $M = 2.58$ ), provision of market information for sales of farm produce ( $M = 2.58$ ), increase in household income ( $M = 2.55$ ), proper preservation of seeds and seedling/planting materials ( $M = 2.54$ ), increase on the use of modern farming techniques ( $M = 2.53$ ), increase in farm yields ( $M = 2.50$ ) and practicing mixed farming ( $M = 2.49$ ), among others. The standard deviation for all the prospects of youth participation on family farming was less than 1. This shows the uniformity as regards to responses of the respondents on prospects of youths participation on family farming. This shows that the rural youths have made appreciable efforts for the success of family farming. This agrees with [Adedoyin \(2005\)](#) who noted that youths have desirable qualities that can promote agriculture. This is also in line with the findings of [Obuh \(2015\)](#) who reported that all the respondents sampled in his study on impact of agriculture programme on food production were youths and fully participated in agricultural activities.

**Table-4.** Mean score of respondents according to prospects of rural youths participation in family farming

| <b>Prospects</b>                                                                               | <b>Mean score</b> | <b>Std. deviation</b> |
|------------------------------------------------------------------------------------------------|-------------------|-----------------------|
| Proper farm record keeping                                                                     | 2.66              | 0.59                  |
| Increase in farm yields                                                                        | 2.50              | 0.63                  |
| Promotion in the practice of dry season farming using irrigation                               | 2.22              | 0.96                  |
| Reduction in the problem of ageing farmers                                                     | 2.40              | 0.82                  |
| Increase on the use of modern farming technologies such as combine harvesters, incubators, etc | 2.39              | 0.77                  |
| Increase in farm labour                                                                        | 2.58              | 0.67                  |
| Proper preservation of seeds and seedling/planting materials                                   | 2.54              | 0.67                  |
| Increase on the use of high yielding varieties of crops                                        | 2.37              | 0.70                  |
| Increase in farming skills such as pests/diseases control measure                              | 2.39              | 0.83                  |
| Practicing mixed farming                                                                       | 2.49              | 0.60                  |
| Practicing mixed cropping                                                                      | 2.49              | 0.72                  |
| Increase on the use of modern farming techniques such as use of improved seeds, etc            | 2.53              | 0.67                  |
| Reduction in farm drudgery as a result of use of modern farm implements                        | 2.40              | 0.82                  |
| Increase in household income                                                                   | 2.55              | 0.63                  |
| Provision of marketing information for sales of farm produce                                   | 2.58              | 0.70                  |
| Increase in household food security                                                            | 2.60              | 0.66                  |
| Enhances increase in food production                                                           | 2.49              | 0.77                  |
| Promotes use of improved varieties of crops                                                    | 2.45              | 0.77                  |
| Encourages use of exotic breeds of farm animals                                                | 2.35              | 0.84                  |
| Ensures proper storage of farm produce                                                         | 2.49              | 0.74                  |

Field survey, 2016

### 3.5. Factor Analysis of Prospects of Rural Youths Participation in Family Farming

Results in Table 5 represent factor analysis of prospects of rural youths participation in family farming. Based on the item loadings, factors 1, 2 and 3 were named technological, production and operational factors, respectively.

Variables which loaded high under technological factors were increase on the use of modern farming technologies (0.55), increase in farm labour (0.44), preservation of seeds and seedlings/planting materials (0.56), increase on the use of high yielding varieties of crops (0.45), increase on the use of modern farming techniques (0.53), increase in household income (0.63), increase in household food security (0.47) and ensures proper storage of farm produce (0.62).

Loadings under production factor were reduction in the problem of ageing farmers (0.61), enables mixed cropping (0.58), enhances increase in food production (0.65) and encourages use of exotic breeds of farm animals (0.53). Operational factors comprised proper farm record keeping (0.59), promotion on the practice of dry season farming using irrigation (0.52), enable mixed farming (0.58) and provision of marketing information for sales of farm produce (0.57).

The three factors which loaded high based on prospects of rural youths participation in family farming agrees with [Technical Centre for Agricultural and Rural Cooperation \(CTA\) \(2014\)](#) who stated that youths complement parents' farm efforts by supplying labour for a wide variety of activities, receive farm information and in some cases assist them in analyzing agricultural innovations before putting it into use.



Table-5. Factor analysis of respondents according to prospects of rural youths participation in family farming

| Prospects                                                                                      | Factor 1<br>(Technological<br>factor) | Factor 2<br>(Production<br>factor) | Factor 3<br>(Operational<br>factor) |
|------------------------------------------------------------------------------------------------|---------------------------------------|------------------------------------|-------------------------------------|
| Proper farm record keeping                                                                     | 0.060                                 | -0.035                             | <b>0.595</b>                        |
| Increase in farm yields                                                                        | 0.419                                 | 0.469                              | -0.288                              |
| Promotion in the practice of dry season farming using irrigation                               | 0.096                                 | 0.103                              | 0.528                               |
| Reduction in the problem of ageing farmers                                                     | 0.233                                 | 0.617                              | 0.162                               |
| Increase on the use of modern farming technologies such as combine harvesters, incubators, etc | 0.554                                 | 0.112                              | 0.335                               |
| Increase in farm labour                                                                        | 0.444                                 | 0.311                              | 0.038                               |
| Proper preservation of seeds and seedling/planting materials                                   | 0.563                                 | -0.016                             | 0.023                               |
| Increase on the use of high yielding varieties of crops                                        | 0.459                                 | 0.188                              | 0.329                               |
| Increase in farming skills such as pests/diseases control measure                              | 0.533                                 | 0.325                              | -0.135                              |
| Practicing mixed farming                                                                       | -0.088                                | 0.249                              | 0.587                               |
| Practicing mixed cropping                                                                      | 0.070                                 | 0.649                              | -0.102                              |
| Increase on the use of modern farming techniques such as use of improved seeds, etc            | 0.531                                 | 0.065                              | 0.350                               |
| Reduction in farm drudgery as a result of use of modern farm implements                        | 0.082                                 | 0.562                              | 0.430                               |
| Increase in household income                                                                   | 0.636                                 | 0.278                              | -0.114                              |
| Provision of marketing information for sales of farm produce                                   | 0.244                                 | 0.055                              | 0.573                               |
| Increase in household food security                                                            | 0.472                                 | 0.058                              | 0.258                               |
| Enhances increase in food production                                                           | -0.013                                | 0.651                              | 0.272                               |
| Promotes use of improved varieties of crops                                                    | 0.279                                 | 0.261                              | 0.348                               |
| Encourages use of exotic breeds of farm animals                                                | 0.057                                 | 0.537                              | 0.263                               |
| Ensures proper storage of farm produce                                                         | 0.622                                 | -0.134                             | 0.130                               |

Field survey, 2016

#### 4. CONCLUSION AND RECOMMENDATIONS

Most of the respondents were males, single and having one form of formal education or the other. Rural youths participation in family farming were very high in activities such as clearing of farmlands, irrigating of farmlands, staking of crops, sorting/grading of farm produce, among others. Prospects of rural youths participation in family farming include proper farm record keeping, increase in household food security, increase in farm labour, provision of market information for sales of farm produce, increase in household income, proper preservation of seeds and seedling/planting materials, increase on the use of modern farming techniques, increase in farm yields and practicing mixed farming, among others. The study recommends the need to encourage youths to remain in family farming through adequate provision of labour-saving technologies and modern farm implements to ease operations and ensure optimum productivity. It also highlights that efforts of service providers are needed in providing youths in rural areas with necessary infrastructure such as electricity in order to discourage them from migrating to urban areas.

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