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# ASSESSMENT OF ANCHOR BORROWERS PROGRAMME PRODUCTIVITY AMONG SMALL-SCALE RICE FARMERS IN KANO STATE, NIGERIA

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**ABSTRACT**
This study was conducted to assess the anchor borrowers' programme productivity among small-scale rice farmers in Kano State, Nigeria. A multi-stage sampling technique was used to select 160 respondents from whom data were collected using questionnaires. Data were analyses using frequency, percentage, mean, Ordinary Least Square (OLS) multiple regression and Gross margin analysis. The majority of the respondents were between the ages of 32 and 52 years and the mean average of 46 years. Majority were male (94%) and married (86.9%). About 63.8% of rice farmers had formal education while 36.2% of the rice farmers had Quranic education. The mean household size, farming experience were 8 members and 16 years respectively. About 61.5% had farm size between 0.40-1.02 hectares and average farm size was estimated to be 1.14 hectares. The study further show that the total variable costs of the production was N326,520 and total revenue realized from the farm is ₦560,000.00 with a gross margin of ₦233,480.00. The The profit for every naira invested was ₦1.72K. The coefficient of rice seed (0.31), fertilizer (0.12), farm size (0.41) were positive and significant at 1% level of probability which implies that an increase in the quantity of seeds, fertilizer and land size would lead to 31%, 12% and 41% increase in the yield respectively. A positive gross margin with increase in return per naira invested showed that small scale rice farming under ABP is profitable. The study recommends that there is need for ABP Project Management Team (PMT) to digitize the ABP enrollment process and provide adequate training to farmers on banking policies as well as procedures to prevent untimely disbursement of input and fund.

**Keywords**: Farmers' Productivity, Anchor Borrowers, Rice Farmers

## I. INTRODUCTION

The agricultural sector remains the mainstay of the Nigeria economy, contributing largely to the country's Gross Domestic Product (GDP) and providing means of livelihood for the bulk of the population. Majority of the farming population are smallholders with less than 2 hectares under cropping, yet accounting for over 90% of agricultural output in the country (Evbuomwan and Okoye, 2017). However, Nigeria government have established and launched several policies, programs and projects in order to be self-food sufficient, food reliant and food secure. Some of these programs and policies focus on specific crops such as rice (Oriza Sativa).

Rice is a predominant staple crop in Nigeria, produced in over 18 states (GEMS4, 2017). According to Onyekwena (2016) Nigerian government has implemented a broad range of policies in the rice sector aimed at rice self-sufficiency. Most recently include: The Presidential Initiative on increased Rice Production (2002-2007); The Nigerian National Rice Development Strategy (NRDS, 2009-208); The Agricultural Transformation Agenda (ATA, 2011-2015); The Rice Intervention Fund (RIF, 2011) and Anchor Borrowers Programme for rice farmers (2015) which is the focus of this study.

While these interventions have made rice farming inputs (including credit) fairly available, vertical linkages between various actors in the rice value chain is still fragmented, with limited coordination and domestic rice production has not increased sufficiently to meet the increased demand. In 2014, rice demand was estimated at 5.9 million Metric Tons (MT) while only 2.7 million MT was locally produced, leaving a supply gap of 3.2 Million MT (Sahel Capital Partners & Advisory Limited, 2015). Farmers still rely mainly on rain fed farming, characterized by low use of modern or improved farm inputs (seeds, fertilizer, pesticides, etc.) and poor access to credit which consequently leads to poor yield. Prominent among these are their poor access to finance and lucrative markets to dispose of their produce, which have left them in a vicious cycle of poverty (Evbuomwan, 2016).

In order to address these twin problems of the smallholder farmers in Nigeria, the Central Bank of Nigeria (CBN) and the Federal Government of Nigeria (FGN) launched the Anchor Borrowers Programme (ABP) in 2015. The programme was initiated by the CBN in its economic diversification drive to achieve a strong and viable agricultural base with more integrated value chains, enhanced food security, fewer imports and higher productivity. The programme was directed at supporting the FGN's key strategic plans of economic diversification; self-sufficiency in food production; stoppage of estimated N3.96 trillion annual import bill on wheat, rice, sugar and fish; stoppage of unbridled expenditure of foreign exchange and the 40 billion naira rice and wheat farming under the CBN's ABP (CBN, 2016).

The ABP concept is like the contract farming concept which has been found to be effective in other developing countries like India (Bommanahalli and Rangappa, 2016). Contract farming is a type of vertical coordination that encourages small-scale farmer's participation in rice

production. It refers to an arrangement between producers and processors to exchange inputs and outputs with pre-agreed price, time, quality and quantity (Singh, 2002).

Contract farming may be considered as an effective risk management system for smallholder farmers, enhancing their accessibility to farm inputs, ensuring the more stable prices for produce, and ultimately generating higher incomes to contract farmers. These services can be provided not only by private firms, but can also come from, or be facilitated by, multi-actor partnerships between companies, governments and NGOs (Prowse, 2012).

Therefore, the program thrust of ABP is provision of farm inputs in kind and cash (for farm labour) to small holders' farmers to boost production of these commodities, stabilizes input supply to agro- processors and address the country's negative balance of payments on foods. At the harvest, the small holder farmer supplies his or her produce to agro-processors (Anchors) who pays the cash equivalent to the farmers (Ayuba., Abba., Isiah., Abubakar., 2020). However, increase in rice supply can be achieve by improving the productivity of rice farmers through combination of factors such as technology, quantity and type of resources used, as well as the efficiency. Therefore, it is against this backdrop that thus study examines the productivity of Anchor Borrowers' Programme among small scale rice farmers in Kano State.

### 1.2 STUDY OBJECTIVES

The broad objective of this study is to analyze Anchor borrowers programme productivity among small-scale rice farmers in Kano state, Nigeria. The specific objectives of the study are to:

i. describe the socio-economic characteristics of Small-scale rice farmers in the study area.
ii. estimate the costs and return of Anchor Borrowers Programme small scale rice farmers beneficiaries.
iii. determine the influence of socioeconomic and farm characteristics on the productivity of Anchor Borrowers Programme small scale rice farmers.

## II. MATERIALS AND METHODS

### 2.1 Study Area

The study area is Kano State of Nigeria. Kano Sate is in the Northern Guinea and Sudan savanna ecological zone in the northern Nigeria. Kano State has a population of 9,383,682 inhabitants who are mainly Hausa and Fulani by tribe (NPC, 2006). According to KNSG (2004) there are other ethinic groups inhabiting the state include all the major and minor tribes of Nigeria such as, Igbo, Yoruba, Nupe, Kanuri, Ebira, Urhobo as well as other races from the middle east especially Lebanon, Yemen and Syria. The state is located within latitude $10^0 33`$ North to $12^0$ 37` North and longitudes $7^0$ 34 to $9^0$ 29` east in the Sudan Savanna Vegetation Zone. The state bordered in the north east by Jigawa State, in the south east by Bauchi State and in the South west by Kaduna State (KNSG 2004).

Kano state is characterized by two distinct seasons, wet and dry season, with wet season from May to September and Dry season from October to April. The raining season is concentrated in the month of June to September and rains are preceded by violent dust and storm followed by rainstorms. The average annual rainfall is 600mm while the temperature is averagely warm all year round at $27^0$ –+ $7^0$c (KNARDA 2001). The soil type is generally sandy loam and crop cultivated under rain-fed condition are millet, sorghum, cowpea, groundnut, beans, cotton and maize. The major crops grown in the state include rice, millet, groundnut, pepper, sorghum, maize and rice which are grown throughout the year because of the availability of irrigation facility made possible by establishment of artificial water bodies like earth dams across the state. The state is administratively divided into three agricultural zones by the Kano State Agricultural Rural Development Authority (KNARDA, 1995). These zones are zone 1, zone 2, and zone 3 with their different local government areas of coverage are as follows.

Zone 1 includes: Tudunwada, Doguwa, Bebeji, Kiru, Garun Malam, Kura, Kumbotso, Madobi, Gwarzo, Karaye, Rogo, Kibiya and Bunkure, with zonal headquarters at Rano.

Zone 2 includes: Bichi, Shanono, Tsanyawa, Kunchi, Kabo, Rimingado, Tofa, Dawakin Tofa, Makoda, Minjibir, Bagwai and Ungogo, with zonal headquarters at Danbatta.

Zone 3 includes: Ajingi, Wudil, Albasu, Garko, Takai, Sumaila, Dawakin Kudu, Warawa, Gezawa, Gabasawa, Kano Municipal, Gwale, Tarauni, Dala, Fagge and Nassarawa, with zonal headquarters at Gaya.

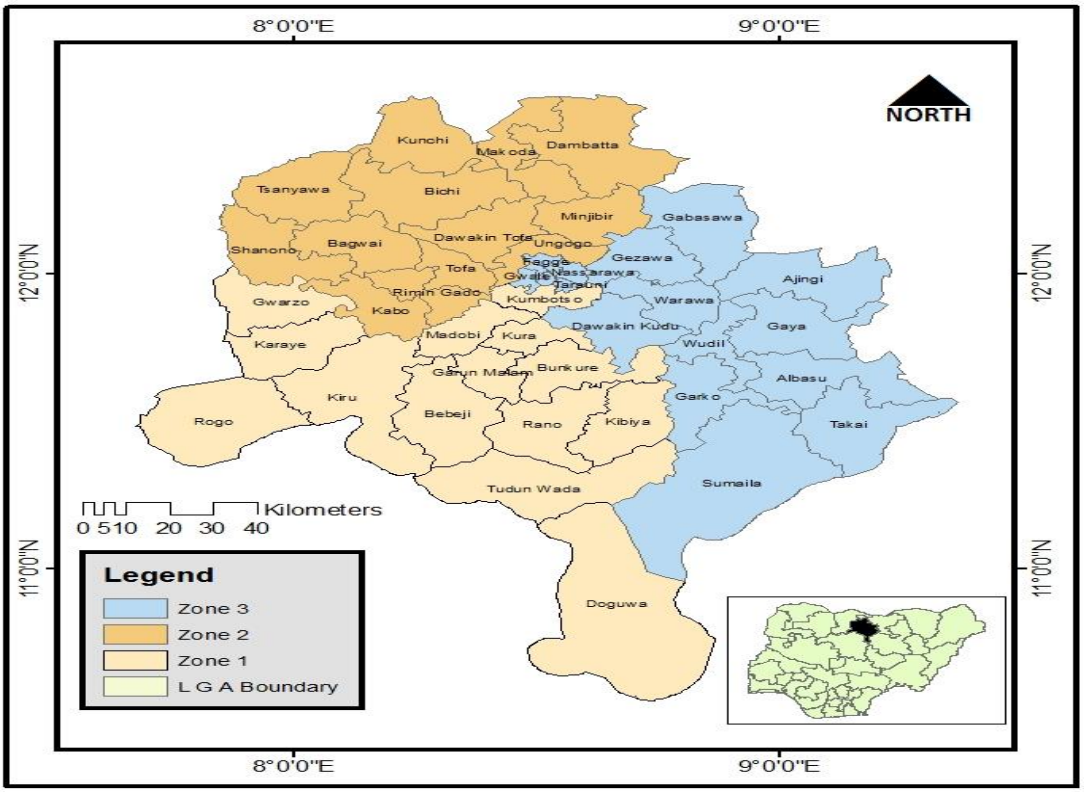


**Figure 1:** Map of the Study Area

### 2.2 Sampling Techniques

A multi-stage sampling technique was employed for this study. The first stage involves purposive selection of three (3) Local Government Areas (L.G.A) from Zone 1 agricultural zone of the state which are; Kura, Garun Malam and Bunkure. This L.G.As was selected based on the high intensity of rice production in the areas and also the part of area benefited in Anchor Borrowers Programme. The second stage involves purposive selection of two (2) villages from the three (3) LGAs. The villages include Imawa and Ubarawa from Kura L.G.A, Chiromawa and Kadawa from Garun Malam L.G.A and Bunkure and Kuruma from Bunkure L.G.A.

Third stage involves a proportional sampling of 80% for each village. A sampling frame of 200 registered members of rice cooperative societies from across the six villages that benefited in Anchor Borrowers Programme was obtained from Rice Farmers Association of Nigeria (RIFAN) Kano State Office. Finally, a simple random selection from each six villages was done with the aid of the ballot method. A total of 160 small scale rice farmers ABP beneficiaries in the six villages were sampled for this study.

**Table 1:** Distribution of Respondents in the Study Area

| **LGAs** | **Villages** | **Sample frame of beneficiaries** | **Sample size of beneficiaries (80%)** |
|---|---|---|---|
| **Kura** | Imawa | 46 | 37 |
| | Ubarawa | 38 | 30 |
| **Garun Malam** | Chiromawa | 34 | 27 |
| | Kadawa | 27 | 22 |
| **Bunkure** | Bunkure | 35 | 28 |
| | Kuruma | 20 | 16 |
| **Total** | | **200** | **160** |

Source: Reconnaissance survey, 2021.

### 2.3 Method of Data Analysis

Various analytical techniques were used for this study to achieve the various objectives which include descriptive statistics, multiple regression, Gross margin analysis and stochastic frontier production function.

#### 2.3.1 Descriptive Statistics

Descriptive statistics was used to achieve objective (i), (vi) and (v) of the study. The descriptive tools employed were mean (x), standard deviation, charts, frequency and percentages.

### 2.3.2 The Profitability Analysis

The Gross Margin Analysis was used to achieve objectives (ii). In line with Olukosi and Erhabor (1988) that gross margin is a good approximation of net farming income, since small-scale farmers usually have negligible fixed costs.

The model specification is given below:

GM = TR-TVC…….

Where;

GM= Gross Margin (N)

TR = Total Revenue (N)

TVC = Total Variable Cost (the cost of variable inputs) (N)

### 2.3.3 Multiple Regression Model

The Ordinary Least Square (OLS) Multiple Regression was used achieve objective (i) i.e to assess the influence of socio-economic and farm characteristics on the productivity of ABP Rice Farmers. The functional form of Cobb-Doglass function was chosen and used because it is liner in logarithmic form and easy to estimate as well as used widely for analysis by many authors.

Thus liner OLS form is stated as,

$Y_{ij} = X\beta + U$……,,…… (1)

While the explicit form of the multiple regression model can be expressed in the following model:

$Y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \beta_5x_5 + \beta_6x_6 + \beta_7x_{7....} + \beta_{11}x_{11} + u$……. (2)

Where;T

Y = Yield of rice harvested (kg)

$X_1$ = Age (years)

$X_2$ = Sex

$X_3$ = Household size (number of household members)

$X_4$ = Education (No. of years spent in formal schooling)

$X_5$ = Level of experience (years)

$X_6$ = Extension (No. of Visits)

$X_7$ = Membership of Association

$X_8$ = Farm Size (ha)

$X_9$ = Seed (kg)

$X_{10}$ = Fertilizer (kg)

$X_{11}$ = Labour (Man days)

$\beta_0$ = Constant

$\beta_1 – \beta_{11}$ = Parameters to be estimated

U = Stochastic error term

## III RESULTS AND DISCUSSIONS

### 3.1 Information on Socio-economic Characteristics of the Rice Farmers

The descriptive statistics of socio-economic characteristics of the Anchor Borrowers Programme (ABP) beneficiaries in Kano State such as age, marital status, educational level, household size, experience, farm size, extension visit is presented in Table 2.

**Table 2: Socio-economic Characteristics of the Rice Farmers (n-160)**

| Variable | Frequency | Percentage(%) | Mean | SD |
|---|---|---|---|---|
| **Age (years)** | | | | |
| 32-38 | 26 | 16.25 | 46 | 9 |
| 39-45 | 48 | 30 | | |
| 46-52 | 58 | 36.25 | | |
| 53-59 | 26 | 16.25 | | |
| 60-66 | 2 | 1.25 | | |
| **Sex** | | | | |
| Male | 151 | 94 | | |
| Female | 9 | 6 | | |
| **Marital Status** | | | | |
| Married | 139 | 86.9 | | |
| Single | 17 | 10.6 | | |
| Widowed | 3 | 1.9 | | |
| Divorced | 1 | 0.6 | | |
| **Household Size (persons)** | | | | |
| 1-6 | 47 | 29.37 | 8 | 4 |
| 7-12 | 83 | 51.88 | | |
| 13-18 | 27 | 16.88 | | |
| 19-24 | 2 | 1.25 | | |
| 25-30 | 1 | 0.62 | | |
| **Experience(years)** | | | | |
| 4-10 | 35 | 21.86 | 16 | 6 |
| 11-17 | 70 | 43.75 | | |
| 18-24 | 31 | 19.37 | | |
| 25-31 | 21 | 13.12 | | |
| 32-38 | 3 | 1.9 | | |
| **Farm Size (ha)** | | | | |
| 0.40-1.02 | 98 | 61.25 | 1.14 | 0.54 |
| 1.03-1.65 | 30 | 18.75 | | |
| 1.66-2.28 | 21 | 13.12 | | |
| 2.29-2.91 | 8 | 5 | | |
| 2.92-3.54 | 3 | 1.88 | | |

| **Education** | | | | |
|---|---|---|---|---|
| Quranic | 58 | 36.2 | | |
| Primary | 13 | 8.1 | | |
| Secondary | 58 | 36.2 | | |
| Tertiary | 30 | 18.8 | | |
| Adult Education | 1 | 6 | | |

Source: Field Survey 2019.

### 3.1.1 Age of the Rice farmers

Result in Table 2 showed that the mean age of rice farmer is 46 years, implying that majority of the farmers are young and within the productive age. The implication is that they have capacity to withstand farm stress and exploit other farming opportunities. This concur with the findings of Yakubu (2002), who reported that famers that are between the age bracket of 30-49 years are more able, innovative and willing to take risk in expectation of profit than the older ones.

### 3.1.2 Household Size

Table 2 shows the distribution of ABP rice farmers by household size. Majority (51.88%) of the farmers had household size that ranged between 7-12 persons, followed by 13-18 persons which 16.88% respectively. The mean household size was 8 persons. This indicates that higher number of members of the household contributes to family labour against the task of hiring labour for all activities in rice production, from land preparation to winnowing which increases significantly to labour cost. Therefore, additional family labour means that some labour activities can be shared which leads to a reduction in cost of production, as well as efficiency in production. This is in line with findings of Nwalieji (2016) that mean household size was 8 persons in a study carried out in Anambra State.

### 3.1.3 Experience (Years)

The result in the table 2 revealed that 43.75% of rice farmers had 11-17 years of experience in rice production. The maximum farming experience observed was 38 years while the minimum was 4 years with a mean of 16 years. This result shows that majority of the farmers are experienced in rice production. The high level of experience may contribute to their ability to use resources more efficiently in their production. The findings corroborate with the work of Kadiri, Eze, Orebiyi and Henri-Ukoha (2014), who found that rice paddy farmers in the Niger Delta region of Nigeria have an average farming experience of 17 years.

### 3.1.4 Farm Size (ha)

The finding on farm size showed that 61.25% of the rice farmers had land size of 0.40-1.02 hectares with the mean farm size of 1.14. The size of the farm holdings confirm that these rice farmers are smallholder and produce on small scale. This is consistent with the findings of Nwalieji (2016) who reveals that farmers in Anambra State had less than 2 hectares and the mean total rice farm land owned was 1.75.

### 3.1.5 Educational Status of ABP Rice Farmers

This result showed that APB rice farmers had one form of education or the other. About 63.8% of rice farmers had formal education while 36.2% of the rice farmers had Quranic education. This implies that level of education will assist them with access to useful and timely information that can enhance their productivity. This result is in line with Amaza (2000), education has a positive and significant impact on farmers‟ efficiency in production. Therefore, education attainment of the rice farmers will greatly affect their decision making in resource utilization as well as increase productivity.

### 3.1.6 Sex of the ABP Rice Farmers

The result of the sex distribution of the rice farmers in Figure 2 showed that majority of the rice farmers were males, 151(94%), while 9 (6%) were females (Table 2). This result implies that rice farming in the study area is a male dominated farming enterprise. This is in line with the findings of Nwalieji, Madukwe, Agwu and Umerah (2014) who found that rice farming is a male dominated enterprise.

### 3.1.7 Marital Status of ABP Rice Farmers

Result on the marital status of the ABP rice farmers showed that about 86.9 % of the farmers were married while 10.6% were single and 0.6% was divorced (Table 2). These members of households can contribute to family labour, thereby reducing the amount of money spent on hiring labour. This is in line with findings of Rahman et al. (2009) that a high proportion of married respondents will contribute widely to the use of family labour by the households as the wives and children constituted the labour force.

## 3.2 Cost and Return Analysis of ABP Small-Scale Rice Farmers

The cost and return analysis of APB small scale rice farmers in the study area were carried out using gross margin analysis. Gross margin analysis means the difference between the total revenue (returns from production) and the total variable costs of production incurred during the production as fixed cost is negligible. The variable cost components in the average cost and return analysis include seeds, fertilizer, agrochemical, land preparation (weeding, harrowing, threshing, winnowing), bags, transport and rent of land. The return realized from the rice production in the study area was obtained by multiplying the quantity harvested by the market price. However, the various costs incurred on the resources used and the returns from the sale of harvested rice were estimated based on the market price at the period under consideration.

**Table 3: Average Costs and Return Analysis of ABP Small-Scale Rice Farmers**

| Variable | Quantity | Unit Cost (₦/Kg) | Total Cost(₦) | TVC(%) |
|---|---|---|---|---|
| **1.Cost of Inputs** | | | | |
| Seeds(kg) | 50 | 267 | 13,350 | 4.09 |
| Fertilizer(kg) | 300 | 220 | 66,000 | 20.21 |
| Agrochemical (litre) | 6 | 2200 | 13,200 | 4.04 |
| Bags (No) | 35 | 100 | 3,500 | 1.07 |
| Rent on Land | 1 | 40,000 | 40,00 | 12.25 |
| **2.Labour (Man day)** | | | | |
| Land preparation (Harrowing, leveling & bike) | 20 | 1000 | 20,000 | 6.13 |
| Transplanting | 28 | 1000 | 28,000 | 8.58 |
| Fertilizer application | 4 | 875 | 3,500 | 1.07 |
| Chemical application | 5 | 2714 | 13,570 | 4.16 |
| Weeding | 20 | 1300 | 26,000 | 7.96 |
| Harvesting, threshing & winnowing | 24 | 3412.50 | 81,900 | 25.08 |
| Transportation | 35 | 500 | 17,500 | 5.36 |
| **Total Variable Cost (TVC)** | | | **326,520** | **100%** |
| **3. Returns** | | | | |
| Average Yield (kg/ha) | 3,500 | | | |
| Average Price (N/kg) | 160 | | | |
| **Total Revenue** | **560,000** | | | |
| **Gross Margin** | **233,480** | | | |
| **Return per Naira Invested** | **1.72** | | | |

**Source**: Field Survey, 2019.

The analysis in the table 3 showed that the total variable costs of the production is ₦326,520. From the analysis, cost of inputs was the major component of the total variable cost accounting for 41.66%. However, the total revenue realized from the farm is ₦560,000.00 with a gross margin of ₦233,480.00 during the period under production. In addition, the Return per Naira Invested showed 1.72. This means that for every naira invested in rice production, the Anchor Borrowers small scale rice farmers realizes profit of ₦1.72K. This result is in conformity with the findings of Ibitoye, et.al, (2012) who found that benefit/cost ratio of rice enterprise in Ibaji was 1.95 which implied that everyone naira invested in rice farming generated revenue of N1.95k, indicating that rice farming in that area was viable. However, the profitability analysis showed that rice production under APB in the study area is profitable. In other words, the economic implication of these findings is that inputs supplied to farmers for rice production were

of benefit to both anchors companies and farmers since returns were enough to repay the input supplied.

### 3.4 Socio-Economic and Farm Factors Influence on Productivity of ABP Rice Farmers

**Table 4: Factors Influencing the Productivity of ABP Rice Farmers**

| Variable | Parameters | Coefficient | Std. error | t-stat | Sig |
|---|---|---|---|---|---|
| Constant | $b_0$ | 3.831 | 0.568 | 6.740 | 0.000*** |
| Age (years) | $b_1$ | 0.041 | 0.134 | 0.302 | 0.764 |
| Sex | $b_2$ | 0.849 | 0.403 | 2.108 | 0.043** |
| Household Size | $b_3$ | 0.037 | 0.062 | 2.041 | 0.597 |
| Education(years) | $b_4$ | 0.371 | 0.121 | 3.064 | 0.004*** |
| Experience(years) | $b_5$ | 0.027 | 0.064 | 0.415 | 0.681 |
| Extension(No. of Visits) | $b_6$ | 0.007 | 0.048 | 0.150 | 0.882 |
| Membership of Association | $b_7$ | 0.420 | 0.234 | 1.789 | 0.082* |
| Farm size(ha) | $b_8$ | 0.296 | 0.373 | 0.793 | 0.433 |
| Seed (kg) | $b_9$ | 0.438 | 0.322 | 1.361 | 0.182 |
| Fertilizer(kg) | $b_{10}$ | 0.202 | 0.102 | 1.981 | 0.056** |
| Labour(mandays) | $b_{11}$ | -0.052 | 0.032 | -1.634 | 0.111 |
| $R^2$ | | 0.89 | | | |
| $R^2$-adjusted | | 0.85 | | | |
| F-value | | 25.854 | | | 0.000*** |

*** Significant at 1% ($p<0.01$), ** at 5% ($p<0.05$), * at 10% ($p<0.10$).

**Source**: Field Survey 2019.

The semi-log model statistics on the table 4 showed an $R^2$ value of 0.89 meaning that 89% of the variation in the estimated model has been explained by the socio-economic and farm factors of the farmers and the remaining 11% was as a result of random error. The F-Value of the estimated model was 25.8% and significant at 1% level of probability which further proved the reliability and validity of the estimated model. In addition, the constant value of the regression model was highly significant at 1% level of probability.

However, the result revealed that coefficient of sex was significant at 5% and positively related to productivity. This showed that sex has a direct relationship to productivity. This suggest that male farmers dominate rice farming in the area probably due to its nature of intense and time-consuming activities or because women are more engaged in non-farm activities and domestic chores than male counterpart. The result is in line with Ayoola et.al (2011) finding that women are more involved in reproductive and domestic responsibilities such as taking care of children

and other domestic works which could have adverse effect on their time and mobility thereby reducing their involvement in rice production.

Furthermore, the result revealed coefficient of educational attainment statistically significant at 1% probability level and also positive to productivity. This implies that high literacy level of rice farmers in the study area exposed the farmers to more reliable information and good decision making in their farm production activities thereby makes the rice farmers more productive. This is in conformity with Idjesa (2007) which found out education was key to enhanced productivity among farming households in the humid forest, dry savannah and moist savannah agro-ecological zones of Nigeria.

As shown in Table 3, membership of association was positive and significant at 10% level of probability. This proved that association membership enhances innovation by enabling farmers to exchange ideas, experiences, skills, as well as cheaply source information that improves their productivity. The result is in agreement with Mihiretu (2008) findings which stated that adoption of modern rice technologies could be motivated by belonging to a cooperative society.

The coefficient of quantity of fertilizer was positive and significant at 5% level of probability. This implies that the adoption and appropriately use of fertilizer, the more productive the rice farmers become. This is in line with Ogundele and Okuruwa (2006) findings which observed that the use of fertilizer increased agricultural productivity of crop farming in the dry savannah and humid forest agro-ecological zones of Nigeria. Meanwhile, age, household size, years of experience, contact with extension agents, farm size, use of improve and labour were all had positive relationship with productivity.

## IV. CONCLUSION

Based on findings of the study, it can be concluded that Anchor Borrowers Programme (ABP) has a significant influence on productivity of the beneficiaries through gross margin. A positive gross margin with increases in return per naira invested showed that small scale rice farming under ABP is profitable. However, sex, education, membership of association and fertilizer application were positively influencing the rice yield implying that increasing the usage of these variables would increase the rice yield. While, labour was negatively influencing the rice yield which were attributed to overuse of labour by the ABP small scale rice farmers in the study area. Therefore, this study recommended that, since the rice farmers in the study area were highly educated, however training them by extension workers on the right use of labour as well as modern technologies will enhance their productivity. Also, there is need for APB Project Management Team (PMT) to digitize the ABP enrollment process and provide adequate training to farmers on APB policies and procedures to prevent untimely disbursement of input and fund.

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