Determinants of Agricultural Credit Acquisition Amongst Poultry and Fish Farmers in Selected LGA's of Rivers State, Nigeria

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D.O.I: 10.56201/ijaes.v8.no7.2022.pg17.27

Abstract

The study analyzed the determinants of agricultural credit acquisition by poultry and fish farmers in Obio/Akpor and Port Harcourt Local Government Area, Nigeria. Simple random sampling technique was used to select 100 farmers from 10 communities in the study area. The objective of the studies are to, describe the socio-economic characteristics of the respondents, identify the sources of credits available to the farmers, determine factors influencing credit acquisition in the and analyse the constraints influencing farmers access to agricultural credit in the study area. The research instruments employed in the study were descriptive statistics, Likert scale and regression analysis. Research result for Obio/Akpor LGA, we used the double log model, said to be the best fit because it had the highest F ratio, 228.431, the highest number of significance variables, a significant Prob > F value of 0.000, an R- squared of 0.97- and an Adj R-squared of 0.965. Membership to cooperative and delay in credit disbursement was found to be significant factors. For respondents in Port Harcourt LGA. The semi- log model is said to be the best fit because it had the highest F ratio, the highest number of significance variables, a significant Prob > F value of 0.000, an R- squared of 0.964 and an Adj R-squared of 0.959. at 5%. Farmers are encouraged to join cooperatives to enable them acquire credits. Interest rate and delay in credit disbursement was found to be significant. The researcher recommends that credit and financial institutions review the conditions for credit acquisition by farmers, so that more persons will be able to benefit from credit disbursement especially with respect to high interest rate, collateral security and proximity to the farmers. Efforts should be made to create more awareness about the existence of formal agricultural credits.

Key Words: Credit, Determinants, Farmers, Poultry, comparative, Acquisition, Collateral, Credit Institution.

INTRODUCTION

The agricultural sector is an important sector and a major contributor to the economic growth and sustainable development of Nigeria (Hazarika and Alwangi, 2003). They went on to state that it creates employment for two-third of the countries labor force and 90% of the population in the rural communities in Nigeria.

However, there has been a large decline in the contribution of agriculture to the economy and the reason for this decline can be traced to the lack of formal national credit policy and the paucity of the credit institutions that are expected to provide assistance to the farmers (Olagunju and Adeyemo, 2008). The importance of credits is evident from the issues and problems emanating from its absence in agricultural production and development. Amadi, Momodu and Chukwuigwe. (2001) emphasized on the importance of credit facilities to the growth of the economy, the agricultural sector inclusive. Adegeye and Dittoh, (1985) described agricultural credits as tools used in gaining control over the use of money, goods and services in the present in an agreement to repay at a future date. Lack of credit is a major drawback to agricultural productivity, absence of credit deprive the farmers the purchasing power to acquire the necessary agricultural inputs such as seedlings, fertilizer, insecticides, pesticides and labor.

As highlighted by Obe-Nwaka, Okidim and Agbagwa (2020), farmer's socio-economic characteristics have been identified to have major effects on agricultural credits acquisition. Socio-economic characteristics such as age, gender, educational level, household size, farm size, farming experience, possession of collateral and gross farm income. Obe – Nwaka et al studied the factors which affects farmers credibility in acquiring credit, the results indicates that gender, age, level of income, education level and level of awareness regarding credit availability are the key factors which significantly affect credit acquisition by small scale farmers. Access to formal credit can also be affected by household characteristics. Issues such as poor disbursement of the credit to the target population, unwillingness of the financial institution to grant farm credits, difficulties in credit procurement by the farmers and misuse of credits can be attributed to the meager level in distribution and utilization of credit in the country. The government have enacted several projects and programs to facilitate credit provision. It has also enacted regulatory policies to promote sectoral allocation of credit by commercial banks to the benefit of the agricultural sector (Central Bank on Nigeria, 2005).

Given that all these issues highlighted have not been addressed properly, this study is therefore designed to address the issues that can be considered as determinants of agricultural credit acquisition by poultry and fish farmers in Port Harcourt and Obio/Akpor Local government areas

Objectives of the Study

The main objective of the study is to identify the factors determining agricultural credits acquisition in Obio/Akpor and port harcourt lga of Rivers State, Nigeria. The specific objectives were to:

- i. describe the socio-economic characteristics of the poultry and fish farmers in the study area.
- ii. identify the sources of credits available to fish and poultry farmers.
- iii. determine the factors influencing fish and poultry farmers credit acquisition in the study area.

iv. analyze the constraints influencing fish and poultry farmers access to agricultural credits in the study. area.

Materials and Methods

The study was conducted in obio/ akpor and port harcourt local government of river state, Nigeria. Survey research design was adopted for data collection from target population. Primary data was be collected using well- structured questionnaires coupled with observation, direct and focus group interview. The questionnaire is divided into sections to capture the specific objectives of the study.

Simple random sampling technique was used in sourcing for primary data. The first stage involved the use of random sampling technique in selecting 20 communities from the study area, 10 communities from Obio/akpor LGA and 10 communities from Port Harcourt. In the second stage, simple random sampling technique was used in selecting 10 (5 poultry + 5 fish farmers) farmers from 10 communities in Obio/akpor Lga, making a total of 100 respondents (50 poultry and 50 fish farmers). In Port Harcourt LGA, 10 farmers (5 poultry + 5 fish farmers) from 10 communities was also interviewed, making a total of 100 respondents (50 poultry and 50 fish farmers). In all, a total of 200 respondents were the sampled size for the study.

Objectives 1 and 2 which are to describe the socio-economic characteristics of the poultry and fish farmers in the study area and to identify the sources of credit available to fish and poultry farmers in the study area, were achieved using descriptive statistics such as frequency distribution and percentages. Objective 3 which is to determine the factors influencing farmers agricultural credit acquisition in the study area, was analyzed using linear regression model. A 4 point likert type scale was be used to weigh the farmers' perceived constraints to agricultural credit acquisition (objective 4).

MODEL SPECIFICATION

| The | implic it | form of the regression is | |
|-----|-----------|---|-----|
| Y | = | f (X) | (1) |
| Y | = | $f(X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, \dots, X_{11}, e)$ | (2) |

The explicit forms of the linear regression is as follows

$$Y = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + b_5 X_5 + b_6 X_6 + b_7 X_7 + b_8 X_8 \dots + b_{11} X_{11} + e$$
(3)

Where

Y = Credit acquisition (acquired credit =1, cannot acquire credit =0) b0 = Intercept $b_1 - b_{11} =$ Regression coefficients Age of farmer's (years) X_1 = Education level (non-formal, primary, secondary, tertiary) X_2 = Sex (0=male, 1=female) X_3 = X_4 =Household size (family size) X_5 Farm size = X_6 Farming experience (years) =Gross farm income (naira) X_7 = membership to cooperative (0 = yes, 1 = no) X_8 =

- X_9 = number of times the farmers received credits (frequencies)
- X_{10} = prevailing interest rate
- X_{11} = delay in credit disbursement
- X_{12} = distance to credit source
- e = Stochastic error term (assumed to have zero mean and constant variables)

The relationship between the dependent and the independent variable can be examined using three functional forms, linear, semi log and double log. The explicit forms of the models are.

Linear function: $Y = \beta_0 + 1 \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} + \beta_{12} X_{12} + e$

Semi log: $Y = Y = \beta_0 + \beta_1 \log(X_{11} + \beta_2 \log(X_2) + \beta_3 \log(X_3) + \beta_4 \log(X_4) + \beta_5 \log(X_5) + \beta_6 \log(X_6) + \beta_7 \log(X_7) + \beta_8 \log (X_8) + \beta_9 \log (X_9) + \beta_{10} \log (X_{10}) + \beta_{11} \log (X_{11}) + \beta_{12} \log (X_{12}) + e$

Where; $\beta_0 = \text{intercept.} \ \beta_1, \beta_2 \dots \beta_{12} = \text{estimated coefficients}$

RESULTS AND DISCUSSION

Socio-Economic Characteristics of the Farmers in Obio/akpor and Ph LGA

In this section, results of analysis from data generated from the field work were presented in line with the socio-economic features of the respondents.

| | | OBIO/ AKPO R | | | | | PHA LGA | | |
|--------------|-------|--------------------|------|-------|-----|------------------|------------|------|-------------|
| Variable | Freq | % | Mea | Freq | % | Mean | Agg. | Agg. | Agg. |
| | (n=10 | | n | (n=10 | | (\overline{x}) | Freq. | % | (\bar{x}) |
| Age | | | | | | | | | |
| 20-30 | 13 | 13 | | 33 | 33 | | 46 | 23 | |
| 31-40 | 15 | 15 | 46yr | 21 | 21 | 38years | 36 | 18 | 42years |
| 41-50 | 29 | 29 | S | 29 | 29 | | 58 | 29 | |
| 51 and above | 43 | 43 | | 17 | 17 | | 60 | 30 | |
| Total | 100 | 100 | | 100 | 100 | | 200 | 100 | |
| Gender | | | | | | | | | |
| male | 46 | 46 | | 49 | 49 | | 95 | 47.5 | |
| female | 54 | 54 | | 51 | 51 | | 105 | 52.5 | |
| Total | 100 | 100 | | 100 | 100 | | 200 | 100 | |
| Marita.s | | | | | | | | | |
| single | 22 | 22 | | 29 | 29 | | 51 | 25.5 | |
| married | 64 | 64 | | 57 | 57 | | 121 | 60.5 | |
| divorced | 8 | 8 | | 7 | 7 | | 15 | 7.5 | |
| widowed | 6 | 6 | | 7 | 7 | | 13 | 6.5 | |
| Total | 100 | 100 | | 100 | 100 | | 200 | 100 | |

 Table 1: Socio-economic characteristics of respondents in both LGAs

| Education no formal 26 26 1 1 27 13.5 101 education 40 40 23 23 53 26.5 86 primary 24 24 38 38 62 31.0 11 secondary 20 20 38 38 58 29.0 2 Tertiary 100 100 100 100 200 100 200 Total 7 35 3 5person 11 5 11 persons 16 and above 2 2 sons 0 2 1 Total 100 100 100 100 200 100 Farm size 100 100 20 100 100 I 6 16 6plot 29 29 29 6plots 45 22.5 6plots 1-5 5 5 5 5 | | | | | | | 5 | 0 | | |
|--|--------------|-----|-----|-------|-----|-----|---------|-----|------|------------|
| Education no formal 26 26 1 1 27 13.5 101 education 40 40 23 23 53 26.5 86 primary 24 24 38 38 62 31.0 11 secondary 20 20 38 38 58 29.0 2 Tertiary 100 100 100 100 200 100 200 200 Total - - - - - - - - Hous. size - 11 - - - - - - - - - - - - - - - - - - | | | | | | | | | | |
| no formal 26 26 1 1 27 13.5 101 education 40 40 23 23 253 26.5 86 primary 24 24 24 38 38 62 31.0 11 secondary 20 20 38 38 58 29.0 2 Tertiary 100 100 100 100 200 100 200 Total 100 100 100 100 200 100 200 Total 100 100 100 100 200 100 100 Farm size 100 100 100 100 25 | Education | | | | | | | | | |
| education 40 40 23 23 53 26.5 86 primary 24 24 38 38 62 31.0 11 secondary 20 20 38 38 58 29.0 2 Tertiary 100 100 100 100 200 100 200 Total Total 100 100 100 100 200 100 200 Total Total 50 50 36 36 86 43 11-15 8 8 7per 3 3 5person 11 5 11 persons 16 and above 2 2 sons 0 20 100 100 100 100 100 100 11 5 11 persons 15 15 15 15 15 15 15 15 15 15 16 6 100 100 200 100 100 100 100 100 100 100 100 100 100 | no formal | 26 | 26 | | 1 | 1 | | 27 | 13.5 | 101 |
| primary 24 24 38 38 38 62 31.0 11 secondary 20 20 38 38 58 29.0 2 Tertiary 100 100 100 100 200 100 200 Total Hous. size Image: Constraint of the state of th | education | 40 | 40 | | 23 | 23 | | 53 | 26.5 | 86 |
| secondary20203838385829.02Tertiary100100100100200100200200TotalHous. size115404061616110150.56-1050503636864311-15887per335person11511 persons16 and above22sons00200100100100100100Farm size(Plots)2929212150255>116166plot29296plots4522.56plots1-55555s505010552.56plots100100100100100Total100100100100100200100100100100100Farm ex(yrs)>12222222222244422111 and above5252rs555728.57728.5Total100100100100200100GrossIncome494924247336.536.536.536.536.536.536.536.536.536.536.536.536.536.536.536. | primary | 24 | 24 | | 38 | 38 | | 62 | 31.0 | 11 |
| Tertiary Total100100100100200100200TotalHous. size $1-5$ 4040616110150.5 $1-5$ 404061616110150.5 $6-10$ 505036368643 $11-15$ 887per335person11511 persons16 and above22sons00200100100Farm size $(Plots)$ 292921215025 >1 16166plot29296plots4522.56plots $1-5$ 5555s505010552.5 52.5 6plots 52.5 <td>secondary</td> <td>20</td> <td>20</td> <td></td> <td>38</td> <td>38</td> <td></td> <td>58</td> <td>29.0</td> <td>2</td> | secondary | 20 | 20 | | 38 | 38 | | 58 | 29.0 | 2 |
| Total Hous, size $1-5$ 40 40 61 61 101 50.5 $6-10$ 50 50 36 36 86 43 $11-15$ 8 8 7per 3 3 5person 11 5 11 persons 16 and above 2 2 sons 0 0 201 1 Total 100 100 100 100 200 100 Farm size (Plots) 29 29 21 21 50 25 $1-5$ 55 55 s 50 50 105 52.5 6plots 45 22.5 6plots $7-5$ 15 15 s 50 100 100 Total Farm $ex(yrs) >1 22 22 22 22 24 24 22 1-5 15 15 40 40 55 27.5 7years $ | Tertiary | 100 | 100 | | 100 | 100 | | 200 | 100 | 200 |
| Hous. size $1-5$ 40 40 61 61 101 50.5 $6-10$ 50 50 36 36 86 43 $11-15$ 8 8 7per 3 3 5person 11 5 11 persons 16 and above 2 2 sons 0 0 200 100 Farm size | Total | | | | | | | | | |
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| 6-10 50 50 36 36 36 86 43 $11-15$ 8 8 $7per$ 3 3 $5person$ 11 5 $11 persons$ 16 and above 2 2 sons 0 0 2 1 Total 100 100 100 100 200 100 Farm size $(Plots)$ 29 29 21 21 50 25 >1 16 16 $6plot$ 29 29 $6plots$ 45 22.5 $6plots$ $1-5$ 55 55 s 50 50 105 52.5 $6-above$ 100 100 100 100 200 100 Total 122 22 22 22 22 24 24 22 27.5 $7years$ $6-10$ 11 11 $8yea$ 33 33 $7years$ 44 22 11 and above | 1-5 | 40 | 40 | | 61 | 61 | | 101 | 50.5 | |
| 11-15887per335person11511 persons16 and above22sons0021Total100100100100200100Farm size(Plots)29292921215025>116166plot29296plots4522.56plots $1-5$ 5555s505010552.56above100100100200100Total100100100100100200100100200100Farm ex(yrs)>12222222244221-5151540405527.57years6-1011118yea33337years442211 and above5252rs55728.5728.5Total10010010010020010000GrossIncome49492424247336.536.550001-50505050847005125.510000000100100010010020010010010010000115001001000100200100100100150 | 6-10 | 50 | 50 | | 36 | 36 | | 86 | 43 | |
| 16 and above 2 2 sons 0 0 2 1 Total 100 100 100 100 200 100 Farm size (Plots) 29 29 21 21 50 25 >1 16 16 6plot 29 29 6plots 45 22.5 6plots 1-5 55 55 s 50 50 105 52.5 6-above 100 100 100 100 200 100 Total Farm ex(yrs) 22 22 22 22 44 22 1-5 15 15 40 40 55 27.5 7years 6-10 11 11 8yea 33 33 7years 44 22 11 and above 52 52 rs rs 5 57 28.5 Total 100 100 100 100 200 100 Gross Income 49 49 24 24 73 </td <td>11-15</td> <td>8</td> <td>8</td> <td>7per</td> <td>3</td> <td>3</td> <td>5person</td> <td>11</td> <td>5</td> <td>11 persons</td> | 11-15 | 8 | 8 | 7per | 3 | 3 | 5person | 11 | 5 | 11 persons |
| Total100100100100200100Farm size | 16 and above | 2 | 2 | sons | 0 | 0 | | 2 | 1 | |
| Farm size(Plots)292921215025>116166plot29296plots4522.56plots1-55555s505010552.56-above100100100100200100Total100100200100Farm ex(yrs)>12222222244221-5151540405527.57years6-1011118yea33337years442211 and above5252rs55728.5Total100100100100200100GrossIncome494924247336.550001-50505050847005125.510000115001001000100200100001001000100200100 | Total | 100 | 100 | | 100 | 100 | | 200 | 100 | |
| (Plots)29292921215025>116166plot29296plots4522.56plots1-55555s50100200100Total100100100100200100Farm ex(yrs)>12222222244221-5151540405527.57years6-1011118yea33337years442211 and above5252rs55728.5Total100100100100200100GrossIncome494924247336.550001-5050262676387730010000011500100100010010020010000100100100100200100 | Farm size | | | | | | | | | |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | (Plots) | 29 | 29 | | 21 | 21 | | 50 | 25 | |
| 1-5 55 55 s 50 105 52.5 6 -above 100 100 100 100 200 100 Total Farm ex(yrs) >1 22 22 22 22 44 22 $1-5$ 15 15 15 40 40 55 27.5 7 years $6-10$ 11 11 $8yea$ 33 33 $7years$ 44 22 11 and above 52 52 rs 5 57 28.5 $Total$ 100 100 100 100 100 200 100 Gross Income 49 49 24 24 73 36.5 50001 - 50 50 50 84700 51 25.5 1000 100 00 100 100 00 100 100 100 100 100 100 100 100 100 100 100 100 100 | >1 | 16 | 16 | 6plot | 29 | 29 | 6plots | 45 | 22.5 | 6plots |
| 6-above Total100100100100200100Farm ex(yrs)>1222222224422 >1 2222224422 $1-5$ 151540405527.57years $6-10$ 11118yea33337years4422 11 and above5252rs55728.5Total100100100100200100GrossIncome494924247336.550001-5050262676387730010000011000100100200100001001000100200100 | 1-5 | 55 | 55 | S | 50 | 50 | - | 105 | 52.5 | - |
| Total Farm $ex(yrs)$ >1 22 22 22 44 22 1-5 15 15 40 40 55 27.5 7 years 6-10 11 11 8 yea 33 33 7 years 44 22 11 and above 52 52 rs 5 57 28.5 Total 100 100 100 100 200 100 Gross Income 49 49 24 24 73 36.5 50001- 50 50 26 26 76 38 77300 10000011500 100 100 0 100 200 100 00 100 0 100 100 200 100 | 6-above | 100 | 100 | | 100 | 100 | | 200 | 100 | |
| Farm ex(yrs) >1 22 22 22 22 44 22 1-5 15 15 40 40 55 27.5 7 years 6-10 11 11 8 yea 33 33 7 years 44 22 11 and above 52 52 rs 5 57 28.5 Total 100 100 100 100 200 100 Gross Income 49 49 24 24 73 36.5 50001- 50 50 26 26 76 38 77300 1000001 1 1 6990 50 50 84700 51 25.5 1000011500 100 100 0 100 200 100 100 00 1 6990 50 50 84700 51 25.5 1000011500 100 100 0 100 200 100 00 100 0 100 <td< td=""><td>Total</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<> | Total | | | | | | | | | |
| >1 22 22 22 22 44 22 1-5 15 15 40 40 55 27.5 7years 6-10 11 11 8yea 33 33 7years 44 22 11 and above 52 52 rs 5 57 28.5 Total 100 100 100 100 200 100 Gross Income 49 49 24 24 73 36.5 50001- 50 50 26 26 76 38 77300 1000000 1 1 6990 50 50 84700 51 25.5 1000011500 100 100 0 100 100 200 100 00 1 1 6990 50 50 84700 51 25.5 1000011500 100 100 0 100 200 100 00 100 100 0 100 200 100 | Farm ex(yrs) | | | | | | | | | |
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| 6-10 11 11 11 8yea 33 33 7years 44 22 11 and above 52 52 rs 5 5 57 28.5 Total 100 100 100 100 200 100 Gross Income 49 49 24 24 73 36.5 50001- 50 50 26 26 76 38 77300 100000 1 1 1 6990 50 50 84700 51 25.5 1000011500 100 100 0 100 200 100 00 150001- | 1-5 | 15 | 15 | | 40 | 40 | | 55 | 27.5 | 7years |
| 11 and above 52 52 rs 5 5 57 28.5 Total 100 100 100 100 200 100 Gross Income 49 49 24 24 73 36.5 50001- 50 50 26 26 76 38 77300 100000 1 1 6990 50 50 84700 51 25.5 1000011500 100 100 0 100 100 200 100 00 1 1 6990 50 50 84700 51 25.5 1000011500 100 100 0 100 100 200 100 | 6-10 | 11 | 11 | 8vea | 33 | 33 | 7 years | 44 | 22 | 2 |
| Total 100 100 100 100 200 100 Gross Income 49 49 24 24 73 36.5 50001- 50 50 26 26 76 38 77300 100000 1 1 6990 50 50 84700 51 25.5 1000011500 100 100 0 100 100 200 100 00 1 6990 50 50 84700 51 25.5 1000011500 100 100 0 100 100 200 100 00 1 6990 50 50 84700 51 25.5 150001- 250001- 250001- 250001- 250001- 250001- 250001- | 11 and above | 52 | 52 | rs | 5 | 5 | J | 57 | 28.5 | |
| Gross Income 49 49 24 24 73 36.5 50001- 50 50 26 26 76 38 77300 100000 1 1 6990 50 50 84700 51 25.5 1000011500 100 100 0 100 100 200 100 00 150001- 100 100 100 100 200 100 | Total | 100 | 100 | | 100 | 100 | | 200 | 100 | |
| Income 49 49 24 24 73 36.5 50001- 50 50 26 26 76 38 77300 100000 1 1 6990 50 50 84700 51 25.5 1000011500 100 100 0 100 100 200 100 00 150001- 100 100 100 100 200 100 | Gross | | | | | | | | | |
| 50001- 50 50 26 26 76 38 77300 100000 1 1 6990 50 50 84700 51 25.5 1000011500 100 100 0 100 100 200 100 00 150001- 100 100 100 100 100 100 | Income | 49 | 49 | | 24 | 24 | | 73 | 36.5 | |
| 100000 1 1 6990 50 50 84700 51 25.5 1000011500 100 100 0 100 100 200 100 00 150001- 100 100 100 100 100 100 | 50001- | 50 | 50 | | 26 | 26 | | 76 | 38 | 77300 |
| <i>1000011500</i> 100 100 0 100 100 200 100 <i>00</i> <i>150001-</i> | 100000 | 1 | 1 | 6990 | 50 | 50 | 84700 | 51 | 25.5 | |
| 00 150001- | 1000011500 | 100 | 100 | 0 | 100 | 100 | | 200 | 100 | |
| 150001- | 00 | | | Ū. | | | | | | |
| | 150001- | | | | | | | | | |
| above | above | | | | | | | | | |
| Total | Total | | | | | | | | | |

Source: Field Survey, 2021

Socio-Economic Characteristics of the Farmers

This section provides descriptive statistics in terms of frequency and percentage distribution of the household socioeconomic variables such as: age, gender, education, household size, farm size, farming experience and gross income of interviewed farmers in obio/akpo and port harcourt LGAs

Table 4.1 which shows the socio-economic characteristics of the farmers shows that for obioakpor, farmers within the age range of 51 and above were the majority with 43%, 41-50 years constituted 29%. Respondents in the age range of 31-40 years made up 15% while those in the

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age range of 20-30 years were 13%. This age distribution may be favorable in terms of credit access because older people have more experience with the economic activities, they are more likely to be creditworthy (Feder *et al.*, 1988). For gender, 54% of the respondents were female whereas 46% were male. This is similar to findings by Henri-Ukoha, Orebiyi, Obasi, Oguoma, Ohajianya, Ibekwe and Ukoha (2011) in their study on the determinants of loan acquisition from financial institutions by small-scale farmers in Nigeria.

For marital status, 22% of the farmers were single, 64% were married, 8% divorced and 6%, this implies that more of married persons are into farming and require credit, this agrees with findings by oladeebo (2008). For education, 26% had no formal education, 40% had just primary education, 24% had secondary education while the remaining 20% had tertiary education, primary education had the highest percentage. Data on household size showed that households with 1-5 persons made up 40%, 50% had household sizes of 6 to 10 persons, 11-15 was 8%. while household sizes 16 persons and above constitute 2%. On farm size, 29% of the farmer had farm size less than 1plot of farmland, 16% of them operated on 1-5plots of farmland while for 6 and above plots recorded 55, this correlates with finding by Ikani & Ayegba (2013). For farm experience, less than a year constitute 22%, 1-5 years,15%,6-10years was 11% while 11years and above was 52%.

For Port Harcourt LGA, farmers within the age range of 51 and above were 17%, 41-50 years constituted 29%. Respondents in the age range of 31-40 years made up 21% while those in the age range of 20-30 years were 33%, this result shows that the youths are now more involved in farming as we see that the higher percentage of persons seeking credit were of the ages of 20 to 30years, this corresponds with findings by Francis, (2017). For gender, 51% of the respondents were female whereas 49% were male, for marital status, 29% of the farmers were single, 57% were married, 7% divorced and 7% whereas the educational status of the respondents, 1% had no formal education, 23% had just primary education, 38% had secondary education while the remaining 38% had tertiary education. Data on household size showed that households with 1-5 persons made up 61%, 36% had household sizes of 6 to 10 persons, 11-15 was 3%. while household sizes 16 persons and above constitute 0%. On farm size, 21% of the farmer had farm size of the farmers had less than 1 plot of farmland, 29% of them operated on 1-5 plots of farmland while for 6 and above plots recorded 50%. For farm experience, less than a year constituted 22%, 1-5 years, 40%, 6-10 years was 33% while 11 years and above was 5%. For gross income, farmers earning 50000- 100000 made up 24%, 100001 - 150000 made up 26% while just 50% for 150,000 and above.

Comparing both local governments, in Obio/Akpor, farmers within the age range of 51 and above had the highest frequency and percentage whereas in Port Harcourt local government, farmers within the ages of 20-30 had the highest frequency/ percentage. For gender, females had the highest percentage/ frequency in both local governments. For marital status, persons that were married were predominant as seen in the percentages for both local governments. For educational attainment, primary education had the highest percentage for obio/akpor local governments whereas secondary and tertiary education had the same percentage and where the highest in port harcourt local government areas. For household size, in obia/ akpor lga, household size of 6-10 had the highest percentage with 50% whereas in port harcourt local government had a higher percentage of its farmers having 6plots and above, 55% and 50% for obioakpor and port harcourt lgas respectively. For farm experience, obioakpor had it highest percentage, 52% as

its repondents having 11 years and above experience whereas port harcourt had its highest percentage 40% on farmers with 1-5.

| | OBIO/AKPOR | | PORT HARCCOURT | | | | |
|-------------------|-------------------|-------------------|----------------|-------------------|--|--|--|
| Sources of credit | Frequency | Percentage (%) | Frequency | Percentage (%) | | | |
| | 7 | 7 | 17 | 15 | | | |
| Formal | / | / | 15 | 15 | | | |
| Informal | 22 | 22 | 32 | 32 | | | |
| No acquisition | 71 | 71 | 53 | 53 | | | |
| Total | 100 | 100.0 | 100 | 100.0 | | | |

Distribution showing sources of credit to farmers in the study area. Table 2: Distribution showing sources of credit to farmers in the study area.

Source: Field Survey, 2021

Table 3.3. shows the farmers percentage distribution on the credit sources used by farmers in the study area. Majority 71% of the respondents reported that they have not made use of any of the listed credit source as they have not acquired credit before. Informal credit source was 22% whereas the formal credit was 7%. For port harcourt local government area, Majority 53% of the respondents reported that they have not acquired credit from any of the listed credit source as they have not acquired credit source was 32% whereas the formal credit before. Informal credit source as they have not acquired credit source was 32% whereas the formal credit before. Informal credit source as they have not acquired credit source was 32% whereas the formal credit was 15%. The result shows that higher percentage of the farmers under study have not acquired credit before now, this has a negative implication as credit has a lot of benefits, one of which is to encourage the farmers to farm.

3. Factors influencing agricultural credit acquisition in the study area TABLE 3 Regression result for agricultural credit acquisition

| OBI |)/ AKPOR | | PORT HARCOURT | | | | |
|--|------------|------------|---------------|-------------|-------------|-------------------|--|
| EXPLANATORY | LINEAR | SEMILOG | DOUBLE | LINEAR | SEMILOG | DOUBLE LOG | |
| VARIABLES | | | LOG | | | | |
| Constant | 2.513 | 1.791 | .238 | 1.371 | 1.466 | .140 | |
| | (20.091)** | (28.694)** | (12.676) | (7.689)** | (15.430)** | (4.902)** | |
| Age | .002 | .025 | .007 | .001 | .017 | .005 | |
| | (.183) | (.413) | (.413) | (.077) | (.287) | (.287) | |
| Education | .002 | .023 | .007 | 008 | 067 | 020 | |
| | (.179) | (.534) | (.534) | (582) | (790) | (790) | |
| Sex | 018 | 047 | 014 | .008 | .029 | .009 | |
| | (919) | (760) | (760) | (.383) | (.392) | (.392) | |
| Household size | .004 | .030 | .009 | .066 | 201 | 060 | |
| | (.242) | (.487) | (.487) | (2.402.)*** | (-2.136)*** | (-2.136)*** | |
| Farm size | .004 | .038 | .011 | .007 | .035 | .010 | |
| | (.165) | (.382) | (.703) | (.353) | (.416) | (.416) | |
| Experience | .024 | .094 | .028 | 066 | 253 | 076 | |
| | (-1.18) | (1.076) | (1.076) | (-3.905)** | (-3.344)** | (-3.344)** | |
| Gross income | .023 | .132 | .040 | .005 | 051 | 015 | |
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International Journal of Agriculture and Earth Science (IJAES) E-ISSN 2489-0081 P-ISSN 2695-1894 Vol 8. No. 7 2022 www.iiardjournals.org

| Membership (1.313) (1.334) (1.334) $(.321)$ (440) (440) 0.82 $.277$ $.083$ $.573$ 2.041 $.612$ (2.447) $(2.590)^{***}$ $(2.590)^{***}$ $(9.827)^{**}$ $(10.785)^{**}$ $(10.785)^{**}$ Frequency $.053$ $.450$ $.136$ 376 -1.454 436 $(.561)$ $(.865)$ $(-6.144)^{**}$ $(-6.248)^{**}$ $(-6.248)^{**}$ Interest 748 -2.528 761 039 172 052 $(-5.315)^{**}$ $(-4.136)^{**}$ $(4.136)^{**}$ $(1.916)^{***}$ $(-1.905)^{***}$ $(-1.905)^{***}$ Creditdelay 085 511 154 $.518$ $.078$ $.155$ $(-3.637)^{**}$ $(-4.582)^{**}$ $(4.582)^{**}$ $(3.913)^{**}$ $(3.200)^{**}$ $(3.193)^{**}$ Distance 034 137 041 088 023 026 | | | | | | | |
|--|--------------------------------|------------|------------|------------|------------|-------------|-------------|
| Membership.082.277.083.5732.041.612 (2.447) $(2.590)^{***}$ $(2.590)^{***}$ $(9.827)^{**}$ $(10.785)^{**}$ $(10.785)^{**}$ Frequency.053.450.136 376 -1.454 436 $(.561)$ $(.865)$ $(-6.144)^{**}$ $(-6.248)^{**}$ $(-6.248)^{**}$ Interest 748 -2.528 761 039 172 052 $(-5.315)^{**}$ $(-4.136)^{**}$ $(4.136)^{**}$ $(1.916)^{***}$ $(-1.905)^{***}$ $(-1.905)^{***}$ Creditdelay 085 511 154 $.518$.078.155Distance 034 137 041 088 023 026 | | (1.313) | (1.334) | (1.334) | (.321) | (440) | (440) |
| Interest (2.447) $(2.590)^{***}$ $(2.590)^{***}$ $(9.827)^{**}$ $(10.785)^{**}$ $(10.785)^{**}$ Interest $.053$ $.450$ $.136$ 376 -1.454 436 $(.561)$ $(.865)$ $(-6.144)^{**}$ $(-6.248)^{**}$ $(-6.248)^{**}$ Interest 748 -2.528 761 039 172 052 $(-5.315)^{**}$ $(-4.136)^{**}$ $(4.136)^{**}$ $(1.916)^{***}$ $(-1.905)^{***}$ $(-1.905)^{***}$ Creditdelay 085 511 154 $.518$ $.078$ $.155$ Distance 034 137 041 088 023 026 | Membership | .082 | .277 | .083 | .573 | 2.041 | .612 |
| Frequency.053.450.136 376 -1.454 436 (.561)(.865)(.865)(-6.144)**(-6.248)**(-6.248)**Interest 748 -2.528 761 039 172 052 (-5.315)**(-4.136)**(4.136)**(1.916)***(-1.905)***(-1.905)***Creditdelay 085 511 154 .518.078.155(-3.637)**(-4.582)**(4.582)**(3.913)**(3.200)**(3.193)**Distance 034 137 041 088 023 026 | | (2.447) | (2.590)*** | (2.590)*** | (9.827)** | (10.785)** | (10.785)** |
| Interest $(.561)$ $(.865)$ $(.6.144)^{**}$ $(-6.248)^{**}$ $(-6.248)^{**}$ Interest 748 -2.528 761 039 172 052 $(-5.315)^{**}$ $(-4.136)^{**}$ $(4.136)^{**}$ $(1.916)^{***}$ $(-1.905)^{***}$ $(-1.905)^{***}$ Creditdelay 085 511 154 $.518$ $.078$ $.155$ $(-3.637)^{**}$ $(-4.582)^{**}$ $(4.582)^{**}$ $(3.913)^{**}$ $(3.200)^{**}$ $(3.193)^{**}$ Distance 034 137 041 088 023 026 | Frequency | .053 | .450 | .136 | 376 | -1.454 | 436 |
| Interest 748 -2.528 761 039 172 052 (-5.315)** $(-4.136)**$ $(4.136)**$ $(1.916)***$ $(-1.905)***$ $(-1.905)***$ Creditdelay 085 511 154 $.518$ $.078$ $.155$ (-3.637)** $(-4.582)**$ $(4.582)**$ $(3.913)**$ $(3.200)**$ $(3.193)**$ Distance 034 137 041 088 023 026 | | (.561) | (.865) | (.865) | (-6.144)** | (-6.248)** | (-6.248)** |
| Creditdelay $(-5.315)^{**}$ $(-4.136)^{**}$ $(4.136)^{**}$ $(1.916)^{***}$ $(-1.905)^{***}$ $(-1.905)^{***}$ 0.085 511 154 $.518$ $.078$ $.155$ $(-3.637)^{**}$ $(-4.582)^{**}$ $(4.582)^{**}$ $(3.913)^{**}$ $(3.200)^{**}$ $(3.193)^{**}$ Distance 034 137 041 088 023 026 | Interest | 748 | -2.528 | 761 | 039 | 172 | 052 |
| Creditdelay 085 511 154 $.518$ $.078$ $.155$ $(-3.637)^{**}$ $(-4.582)^{**}$ $(4.582)^{**}$ $(3.913)^{**}$ $(3.200)^{**}$ $(3.193)^{**}$ Distance 034 137 041 088 023 026 (-4.59) (-4.59) (-4.59) (-4.59) (-2.4) (-1.040) | | (-5.315)** | (-4.136)** | (4.136)** | (1.916)*** | (-1.905)*** | (-1.905)*** |
| Distance $(-3.637)^{**}$ $(-4.582)^{**}$ $(4.582)^{**}$ $(3.913)^{**}$ $(3.200)^{**}$ $(3.193)^{**}$ Distance 034 137 041 088 023 026 (-024) (-450) (-450) (-224) (-1.040) (-1.040) | Creditdelay | 085 | 511 | 154 | .518 | .078 | .155 |
| Distance 034 137 041 088 023 026 | | (-3.637)** | (-4.582)** | (4.582)** | (3.913)** | (3.200)** | (3.193)** |
| | Distance | 034 | 137 | 041 | 088 | 023 | 026 |
| (034) (450) (450) (924) (-1.049) (-1.049) | | (034) | (450) | (450) | (924) | (-1.049) | (-1.049) |
| \mathbf{R}^2 0.967 0.970 0.970 0.963 0.964 0.964 | \mathbf{R}^2 | 0.967 | 0.970 | 0.970 | 0.963 | 0.964 | 0.964 |
| R² adjusted 0.962 0.965 0.965 0.958 0.959 0.959 | R ² adjusted | 0.962 | 0.965 | 0.965 | 0.958 | 0.959 | 0.959 |
| F-ratio 210.684 228.413 228.431 190.828 194.646 194.646 | F-ratio | 210.684 | 228.413 | 228.431 | 190.828 | 194.646 | 194.646 |

** Significant at 5% level, ***Significant at 10% Source: Field Survey, 2021

Table 4.4 shows the results for linear, semi-log and double log regression model of the independent variables influencing the dependent variable. The double log model is said to be the best fit because it had the highest F ratio, 228.431, the highest R- squared, the highest number of significance variables, a significant Prob > F value of 0.000, an R- squared of 0.97- and an Adj R-squared of 0.965. Membership to cooperative was found to be significant and positive at 10%, farmers are encouraged to join cooperatives to enable them to acquire credits. Interest rate had a significant (5%) and negative relationship with credit acquisition, this is true because the higher the interest rate, the lesser the farmers who are willing to take these credits as it increases their profit or return. Lastly delay in credit disbursement was found to be significant.

Also for port harcourt local government area, Household size was found to be significant and negative at 10%, that is to say, the more the number of persons, the lower the need to acquire credit. Farm experience was found to be significant and negative, this means the more experienced the farmer is, the lower his desire to acquire credit. This could be because older farmers either lack the willingness or technical know to go through the rigorous process of acquiring credit. Membership to cooperative was found to be significant and positive at 5%. Interest rate had a significant (10%) and negative relationship with credit acquisition. Lastly delay in credit disbursement was found to be significant. Farmers are hesitant to get these credits because of the delay in disbursement.

Constraints to accessing farm credit Table 4: Perceived constraints of farmers' access to agricultural credit

| Perceived constraints | Numbe r of Farme rs | Mean score | Num ber of Farm ers | Mean score |
|---|------------------------------|---------------|---------------------------------|---------------|
| Difficulty in securing loan because of lack of collateral | 100 | 3.73 | 100 | 3.25 |
| Lack of credit because the loan transaction cost is high | 100 | 2.25 | 100 | 2.40 |
| Difficulty in getting credit because the interest rate is high | 100 | 3.71 | 100 | 3.80 |
| I have not acquired credit because of lack of awareness on agricultural credits | 100 | 2.51 | 100 | 2.35 |
| Difficulty in getting credit because I dont belong to a cooperative | 100 | 3.91 | 100 | 3.45 |
| It is often difficult to get credits because the credit Institution is far from my residence | 100 | 2.11 | 100 | 2.20 |
| I do not acquire credit because of the delay in getting the credits I do not acquire credit because the loan amount is often too small | 100 | 2.46 | 100 | 2.90 |
| for my business | 100 | 2.20 | 100 | 2.45 |

Decision rule: Accept as a constraint if likert scale mean score is approximately 2.50 or greater, otherwise reject.

Source: Field Survey, 2021

Table 4 shows results for perceived constraints of the farmers to access agricultural credit. Constraints are accepted or rejected with the use of the four point type likert scale, mean scores approximately 2.50 or greater are accepted and if otherwise rejected. As seen from the table above, the common constraints faced by the respondents were lack of collateral for credits, high interest rate, lack of awareness on existing credit schemes and not belonging to cooperatives to qualify them for credit approval.

Comparative Assessment of the Determinants of Credit Acquisition by Poultry and Fish Farmers in Obio/Akpor and Port Harcourt LGA's

The study discovered that both LGAs had a higher percentage of the respondents to be female (71% and 51%), a higher percentage where married (64% and 57%). On credit acquisition, both LGAs had higher percentage of its respondents reporting not to have acquired credit. (71% and 51%). On the credit source for those who admitted to have acquired credit before, a higher percentage made use of the informal credit sources for both LGAs. On the factors influencing credit acquisition, both LGAs acknowledged that membership to cooperatives, interest rate and credit delay where significant in influencing their ability or desire to acquire credit. For

constraints, the respondents both admitted that no collateral, high interest rate and not belonging to a cooperative where constraints to credit acquisition

On contrast, Obio/akpor recorded a higher percentage of its respondents to be 51 years and above whereas port Harcourt had more respondents within ages 20-30, for household size, Obio/akpo recored a higher percentage on households size 6-10 whereas port Harcourt recorded 1-5 as its highest. The difference between those who have acquired credit and those who haven't is very high in Obio/akpor 71% against 29% whereas the margin for port harcourt is just 1% (51% against 49%) and lastly on factors influencing credit acquisition, while obio/akpor recorded three significant factors, (membership, interest and credit delay), Port Harcourt recorded six significant factors (household size, experience, frequency, membership, interest and credit delays

CONCLUSION

The study analyzed the determinants of agricultural credit acquisition by poultry and fish farmers in Obio Akpor and Port Harcourt Local Government Area, Nigeria. The research findings for obio akpor lga showed that Farmers within the age range of 51 and above were the majority with 43%, 54% of the respondents were female whereas 46% were male. Table 4.2 showed that the majority (71%) of the respondents have not acquired credit for farming while the (29%) admitted to have acquired credit in the past. Majority 71% of the respondents reported that they have not made use of any of the listed credit source as they have not acquired credit. Membership to cooperative was found to be significant and positive at 10%, farmers are encouraged to join cooperatives to enable to acquire credits. Interest rate had a significant (5%) and negative relationship with credit acquisition. Lastly delay in credit disbursement was found to be significant. Farmers are hesitant to get these credits because of the delay in disbursement.

For respondents in Port Harcourt Lga, Table 4.7 showed that 51% of the respondents have not acquired credit for farming while the 49% admitted to have acquired credit in the past. Majority 53% of the respondents reported that they have not made use of any of the listed credit source as they have not acquired credit before. Informal credit source was 32% whereas the formal credit was 15%. Household size was found to be significant and negative. Farm experience was found to be significant and negative. Membership to cooperative was found to be significant, farmers are encouraged to join cooperatives to enable to acquire credits. Interest rate had a significant (10%) and negative relationship with credit acquisition,

Recommendation

The researcher recommends that credit and financial institutions review the conditions for credit acquisition by farmers, so that more persons will be able to benefit from credit disbursement especially with respect to high interest rate, collateral security and proximity to the farmers

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