

RESEARCH ARTICLE

ANALYSIS OF FACTORS INFLUENCING CREDIT ACCESSIBILITY AMONG POULTRY FARMERS IN OGBOMOSO AGRICULTURAL ZONE, OYO STATE

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ABSTRACT

Poultry as part of livestock is an important sector in agriculture. It has been observed that there has been a continuous decline in poultry farmer's access to credit to boost production. The purpose of this study was to analysis the factors influencing credit accessibility among poultry farmers in Ogbomosho Agricultural zone. A multistage sampling technique was used in selecting 90 poultry farmers. Primary data were collected on poultry farmer's socioeconomic characteristics, available credit sources using a well-structured questionnaire and were analysed using descriptive and logistic regression model. The result shows that 64.4% of the respondents had access to credit with cooperative societies (51.1%) being the major source where poultry farmers get credit. Logistic regression estimates revealed that marital status, farming experience and contact with an extension agent were the significant factors influencing credit accessibility among poultry farmers. Hence, farmers should be educated on the need to organize themselves into cooperative groups, for easy contact with the extension agent through which assistance can be rendered.

KEYWORDS

Accessibility, Credit, Farmers, Poultry

1. INTRODUCTION

Agriculture is a significant sector in Nigeria's economy and is the main source of income for the vast majority of households in Nigeria (Olomola, 2018; Adeomi, et al., 2022). The sector plays a very significant role in addressing food insecurity, poverty alleviation and human development challenges (Chandio et al., 2017). Despite the contribution to the economy, Nigeria's agricultural sector is faced with a lot of challenges which impact its productivity. These challenges include; poor land tenure system, low technology, high production cost, post-harvest loss and poor access to markets. One of the major factors attributed to the declining productivity of the sector is farmers' limited access to credit facilities (Nwaru, 2004; Manyong et al., 2005, Adewale, et al., 2022). The role of credit in agricultural economy cannot be overemphasized. Most farmers cushion the challenges affecting production using credit or loans. The availability of credit through accessible sources will help remove the limits to achieving high productivity and income in their enterprises (Otunaiya, 2007).

One important sector in agriculture is livestock, which comprises of cattle, goats, sheep, pigs and poultry. In Nigeria, the livestock sector is a profitable sector in the overall economy, with yearly growth of 12.7% (FAO, 2020). The poultry sector is important to Nigeria's economy because it provides a reliable source of animal protein in the form of meat and eggs (Nmadu et al., 2014). Due to its high capital requirements for production, the poultry industry in Nigeria is one of the agribusiness subsectors that needs supplementary funding in addition to the farmer's own investment budget. Unfortunately, the majority of Nigeria's small-scale farmers, including those who raise poultry, have limited income, which gives room for little savings thereby affecting productivity (Orimogunje et al., 2020; Audu et al., 2007).

Most of the farmers also find it difficult to adopt modern technology that would have increased their farm revenue (Agom and Idiong, 2002). Agricultural credit now serves as a bridge between the adoption of agricultural technologies and increase in farm income among Nigeria's poor farmers (Anyiro and Orriaku, 2011; Akudugu, 2012; Akpan et al., 2013). Agricultural credits are essential components of sustainable agricultural production given to farmers for production, storage, processing, and sale of agricultural products. Its availability and demand are necessary conditions for achieving the national goals of reducing poverty and ensuring the nation's ability to provide for its own food needs (Akudugu, 2012; Akpan et al., 2013).

Although several studies have been conducted on credit accessibility among poultry farming households (Sanusi and Olagunju, 2013; Akpan et al., 2013; Akintunde et al., 2020; James et al., 2021). Various researchers have also examined different problems associated with agricultural credit access among farming households. Yet, there is a dearth of knowledge on factors influencing farmer's access to credit and how credit was utilized in the poultry industry in Ogbomosho Agricultural zone. Thus, it is necessary to examine the factors influencing credit accessibility among farming households in the study area. Specifically, this study describes the socio-economic characteristics of poultry farmers; identifies various credit sources among poultry farmers; identifies how credit was obtained and utilized among poultry farmers and determines the factors affecting credit accessibility among poultry farmers in the study area.

2. MATERIALS AND METHODS

The study was carried out in Ogbomosho agricultural zone of Oyo State, Nigeria. The zone comprises of five (5) local government areas. To select poultry farmers for the study in the zone a multistage sampling procedure was used. Random selection of three (3) local government areas from the

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five (5) local government areas in Ogbomoso were done at the first stage, followed by a random selection of two (2) villages from each of the selected local government at the second stage. Finally, random sampling was used to select fifteen (15) poultry farmers in each of the villages across the selected local government area. A total number of ninety (90) poultry farmers were selected as a representative sample size for the study in the zone. A well-structured questionnaire was adopted to collect the data, in which descriptive statistics and a logistic regression model were used to analyse the data. To profile the socio-economic characteristics of poultry farmers, to identify various credit sources among poultry farmers and to identify how credit was obtained and utilised among poultry farmers in the study area descriptive statistics were used while factors affecting credit accessibility among poultry farmers in the study area was determined using logistic regression.

The logistic regression model is specified as:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \mu_i$$

Where Y= Access to Credit (1= Yes; 0= No)

X1= Sex (male=1, female=0)

X2= Age (years)

X3= Household size (actual number)

X4= Marital status (1= married; 2= others)

X5 = Contact with Extension agent (1= Yes; 0= No)

X6 = Level of Education (years)

X7 = Farming Experience (years)

β_0 = Constant

$\beta_1 - \beta_7$ = Coefficients of the variables

μ_i = error term

2.1 Socioeconomic Characteristics of The Respondents

The socio-economic characteristics of poultry farmers in the study area are shown in Table 1. 64.4% of the poultry farmers were male and 35.6%

of them were female. This shows that men dominate poultry farming in the study area. The age distribution of the respondents revealed that 30% of the poultry farmers are between the age of 41 - 50 years and 40% are above 50 years. The average age of the poultry farmers was 48 years. This implies that many poultry farmers were still within their productive and active age, and can make positive contribution to agricultural production. The result further revealed that majority (83.3%) of poultry farmers were married. Marriage confers emotional stability on the respondents hence most of the respondents could display high level of maturity and responsibility especially when paying back credit obtained. 52.2% of the respondents had a household size that ranged between 4 - 6 members; with a mean household size of 6 members. This implies that poultry farmers still have adequate household size which may guarantee the availability of labour and can in turn reduce expenses on hired labour.

The results show that majority of the farmers had one form of formal education or the other. With 43.3% of the respondents having at least secondary education. This result implies that there is potential for poultry production to increase since education will enable farmers to have access to information on new agricultural innovation, which can be adopted to enhance their productivity. In addition, 50% of the respondents had between 10-20 years of farming experience. The mean farming experience was 17 years. This implies that majority of the farmers have vast experience in poultry farming. 48.9% of the respondents are primarily into farming. This is expected as most households in the rural areas depend mainly on agriculture as their primary source of livelihood.

From the result, most of the respondents were members of a cooperative society. About 48.9% did not belong to any cooperative society while 51.1% belonged to cooperative society. This implies that majority of the respondents would be able to access benefits such as loans, credit facilities, subsidized price of products etc. The result revealed that majority (67.8%) of the respondents were contacted by extension agents. while 22.2% had no contact with extension agents. This implies that majority of the respondents could have access to agricultural information from extension agents which will further help them in their business. In addition, majority (64.4%) of the respondents had access to credit while 35.6% had no access to credit. This implies that majority of the respondents received credit for production purposes; for the payment of wages, procurement of inputs, feeds for poultry birds, herbicides and improved seeds e.t.c to enhance their business.

Table 1: Socio-Economic Characteristics of Respondents

Characteristics	Frequency	Percentage
Gender		
Male	58	64.4
Female	32	35.6
Age (Years)		
≤30.0	8	8.89
31-40.0	19	21.1
41-50.0	27	30.0
51-60.0	36	40.0
Marital status		
Single	6	6.67
Married	75	83.3
Widowed	9	10.0
Level of education (years)		
No formal education	11	12.2
Primary school	15	16.7
Secondary school	39	43.3
Tertiary school	25	27.8
Main occupation		
Farming	44	48.9
Trading	13	14.4
Artisan	23	25.6
Civil servant	10	11.1
Household size		
≤ 3	10	11.1
4-6	47	52.2
7-9	32	35.6
> 9	1	1.11
Membership of cooperative/ association		
Yes	46	51.1
No	44	48.9
Access to formal Credit		
Yes	58	64.4
No	32	35.6
Total	90	100.0

Source: Field Survey, 2022

2.2 Source of Credit Among Poultry Farmers

According to the result shown in Table 2, the farmers in the study area source for credit from different avenue. Majority (51.1%) of the poultry farmers are members of cooperative societies, therefore they were able to collect loans from cooperative societies, while 48.9% of the farmers did not source for credit from cooperative society. Only a few (12.2%) of the farmers get loans from commercial banks while a larger percentage (87.8%) did not apply for a loan in commercial banks. Only 3.3% and 21.1% of the farmers collect credit from friends/relatives and thrifts respectively, while majority (96.7% and 78.9%) of them did not source for agricultural credit from these sources.

Table 3 further shows the various conditions to obtain credit from

different sources among respondents in the study area. Majority (82.2%) of the respondents acknowledged ownership of collateral as condition to obtain credit while few (17.8%) of the farmers did not acknowledge ownership of collateral as condition to obtained credit. A larger percentage (60%) of the poultry farmers acknowledged that being members of cooperative societies are conditions to obtain credit and 40% did not acknowledge that being members of cooperative societies are conditions to obtain credit. About 46.7% of the farmers acknowledged credit worthiness as conditions to fulfil before obtaining credit while more than half (53.3%) did not acknowledge credit worthiness as conditions to fulfil before obtaining credit. Moreover, 51.1% of the farmers acknowledged having a guarantor as condition for obtaining credit while the remaining 48.9% did not acknowledge having a guarantor as condition for obtaining credit.

Table 2: Distribution of Respondents According to Sources of Credit

Sources of Credit	Frequency	Percentage (%)
Cooperative		
Yes	46	51.1
No	44	49.9
Commercial Bank		
Yes	11	12.2
No	79	87.8
Friends/Relatives		
Yes	3	3.33
No	87	96.7
Thrifts		
Yes	19	21.1
No	71	78.9
Total	90	100

Source: Field Survey, 2022

Table 3: Distribution of Respondents by Conditions for Obtaining Credit Among Respondents

Conditions	Frequency	Percentage (%)
Collateral		
Yes	74	82.2
No	16	17.8
Membership in cooperative		
Yes	54	60.0
No	36	40.0
Credit worthiness		
Yes	42	46.7
No	48	53.3
Guarantor		
Yes	46	51.1
No	44	48.9
Total	90	100

Source: Field Survey, 2022

2.3 Credit Obtained and Utilised Among Poultry Farmers

Table 4 and 5 shows distribution of respondents according to the credit they obtained and utilised. Result in table 4 shows that the highest amount of credit obtained was between ₦251,000 to 500,000 with an average of ₦190,222.2 and was from the cooperative society. Friends and relatives offered the lowest amount of credit with an average of ₦1,777.78. The average total credit obtained was ₦272,444.42. Table 5 reveals that majority (23.3% and 47.8%) of credit amount obtained between ₦1-200,000 was spent on agricultural purpose and non-agricultural purpose respectively. The average amount spent on agricultural purpose was ₦207,600 while the average amount spent on non-agricultural purpose was ₦57,196.44. This result implies that credit obtained by the farmers in the study area was used mainly on agricultural activities such as buying of feeds, payment of labour, drugs and medication e.t.c and was well utilised.

2.4 Determinants of Credit Accessibility Among Poultry Farmers

Table 6 shows the maximum likelihood estimates of the logit regression model. The model was used to estimate the factors affecting credit accessibility among poultry farmers in the study area. The coefficient of determination (R^2) was 0.2346. This suggests that 23.46% of the variability in the access to credit of the respondents is jointly explained by

variations in the specified independent variables in the model. In the model, three coefficients out of seven explanatory variables were found to be significant. The results reveal that marital status, farming experience and visit by extension agent are significant variables that influence credit access by the farmers.

The coefficient for marital status was positive and statistically significant at 10%. The positive sign for the coefficient of this variable indicates that married farmers have a likelihood of having access to credit. This may probably be because marriage confers some level of responsibility. Also, extension visit by extension agents was positive and statistically significant at 5%. The positive sign for the coefficient of this variable indicates that farmers visited by extension agents have a likelihood of having access to credit. The result shows the important role played by extension agents as sources of information and enforce the farmers to use credit for productive purpose rather than for consumption purpose.

On the other hand, the coefficient of farming experience was negative and statistically significant at 5%. The negative sign for the coefficient of this variable indicates that the higher the farming experience of the farmers the lower the probability of having access to credit. This might be because farmers did not gain more entrepreneurial skills and do not have the ability to diversify production as expected.

Table 4: Distribution of Respondents According to Credit Obtained

Source Amount (₦)	Cooperative	Commercial Bank	Friends/Relatives	Thriffs/	TOTAL
1-250,000	16(17.8%)	4(4.44%)	3(3.33%)	18(20.00%)	
251,000-500,000	24(26.7%)	6(6.67%)	0(0.00%)	1(1.11%)	
501,000-750,000	4(4.4%)	1(1.11%)	0(0.00%)	0(0.00%)	
> 750,000	2(2.2%)	0(0.00%)	0(0.00%)	0(0.00%)	
Mean	190,222.2	47,222.22	1,777.78	33,222.22	272,444.42

Source: Field Survey, 2022

Table 5: Distribution of Respondents According to Credit Utilization

Amount (₦)	Agricultural Purpose	Non- Agricultural Purpose
1-200,000	21(23.33%)	43(47.78%)
201,000-400,000	18(20.00%)	4(4.44%)
401,000-600,000	15(16.67%)	
> 600,000	4(4.44%)	
Mean	207,600	57,194.44

Source: Field Survey, 2022

Table 6: Logit Regression Analysis of Determinants of Credit Accessibility

Credit Access	Coefficient	Std. Error	Z Value	P> z
Age	0.0732	0.0654	1.12	0.263
Gender	0.5389	0.5575	0.97	0.334
Marital Status	0.9249	0.5148	1.80	0.072*
Household Size	-0.2494	0.1688	-1.48	0.140
Educational level	0.4511	0.2773	1.63	0.104
Farming experience	-0.2048	0.0806	-2.54	0.011**
Extension agent visit	1.0943	0.5458	2.00	0.045**
Constant	-2.1755	2.3202	-0.94	0.348
Number of observation	90			
R ²	0.2346			

Source: Field Survey, 2022 ** represents 5%, * represents 10% level of significance

3. CONCLUSION

The study examined factors influencing credit accessibility among poultry farmers. The findings of the study showed that male farmers dominate poultry production, in which majority of the poultry farmers are still in their active age, hence they have the strength to carry out the poultry production activities. In addition, poultry farmers have moderate household size and vast experience in farming, in which majority of them had access to credit in the study area. The study concluded that factors such as marital status, farm experience and extension agent contact significantly influenced credit accessibility among poultry farmers in Ogbomoso agricultural zone. To enhance credit accessibility among poultry farmers, cooperatives and other financial institutions should provide farmers with adequate access to credit facilities and soft loans with low interest in order to motivate the farming communities to source for credit

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