# AN ANALYSIS OF THE FACTORS INFLUENCING ACCESS TO CREDIT BY POULTRY FARMERS IN ABUJA, NIGERIA

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## ABSTRACT
This paper examined the factors influencing access to credit by poultry farmers in Abuja using primary data. The factors that are found to be important in explaining access to credit include extension visits, distance to formal credit sources, hours of entrepreneurial training and commercial broiler production enterprise. Years of schooling, household size and broiler parent stock enterprise are the important factors influencing the amount of credit received. To enhance access to credit by poultry farmers in the study area, policies that will encourage the expansion of formal financial services to the rural areas and human capacity development should be strengthened.
**Keywords:** credit, formal sources, poultry farmers, Abuja, Nigeria.

## INTRODUCTION
The poultry industry plays important roles in thedevelopment of Nigeria economy. The industry provides employment opportunities for the populace, thereby serving as a source of income to the people. Also, it provides a good source of animal protein in terms of meat (chicken) and eggs. The protein has a high nutritional value (Abedullah *et. al.*, 2003) as it is important in the building and repair of body tissues; a low intake of protein hinders the development of the brain, reduces the skillfulness of the young, and retards the growth rate and resistance to infections (Ogidan, 2002). Poultry consists of chickens (layers, cockerels and broilers), turkeys, guinea fowls, ostriches, ducks, geese and quails. A study by Laviria *et al.* (1998) revealed that poultry production is capital intensive and the capital includes: poultry pens, feeds, drugs, equipment, day old chicks etc. Modern poultry production requires the application of modern technology in the management of the poultry businesses. Agricultural credit is widely recognized as one of the intermediating factors between adoptions of farm technologies and increase farm incomes among poor farmers in Nigeria (Omonona, *et al.*, 2008; Oladeebo and Oladeebo, 2008; Anyiro and Orriaku, 2011 and Akudugu, 2012).

In Nigeria, one of the major problems confronting small and medium scale farmers is poor access to adequate credit, even though this category of farmers produces the bulk of the domestic agricultural output (Eze and Ibekwe, 2007). Access to credit is regarded as one of the key elements in raising agricultural productivity (Development Bank of South Africa (DBSA), 2005). Availability of adequate and timely credit help in expanding the scope of operation and adoption of new technologies, enhance the purchase and use of improved inputs and facilitates other up-stream and down-stream operations in agriculture (Oladeebo and Oladeebo, 2008). More and more farm households have come to depend on credit. Unfortunately, several factors are thought to limit farmers' access and demand for credit in Nigeria. Identification and understanding of these factors among poultry farmers will better inform the policy makers on how to tackle the problem of credit deficiency in the sub-sector. In light of these, this study focused on the factors that influence poultry farmers' access to formal credit in Abuja.

## MATERIALS AND METHODS
This study was carried out in the Federal Capital Territory, Abuja. A multi-stage sampling technique was employed to obtain data for the study. The first stage was the purposive selection of the six area councils in Abuja noted for poultry production: Abaji, Kwali, Kuje,

Gwagwalada, Bwari, and Municipal. This was followed by random selection of five poultry farm communities from each of the six selected area councils. The list of poultry farmers was obtained from Poultry Association of Nigeria in Abuja. The third and the final stage was a random selection of 140poultry farmers proportionate to size. However, a total of 107 respondents have meaningful information needed for achieving the objectives of this study. The data was analysed using descriptive statistics and Heckman two-stage models. The results of the Heckman two-stage models is presented.

## RESULTS AND DISCUSSION

### Factors influencing poultry farmers' access to credit and amount of credit obtained

The results of the analysis are presented in Table 4. As shown in the table, the likelihood function of the two-step model was significant at 1% showing a strong explanatory power. The coefficient of the mills lamda was significant also at 1% level showing evidence of the presence of self–selection upon which the choice of Heckman two step model is justified.

The analysis shows that extension visits, distance to credit source, entrepreneurial training and broiler parent stock enterprise were the factors that significantly explained the probability of the likelihood of poultry farmers' access to credit. Meanwhile, only distance to credit source and entrepreneurial training are the continuous variables that explain access to credit significantly to give meaningful explanation of marginal effects after probit. As depicted in the table, a unit increase in the distance between respondents' farms to the source of credit will reduce farmers' access to credit by 12.4%. Farmers near the lending institutions have a location advantage and can contact the lender easily and have more access to information than those who live in distant locations. The result support evidence provided by (Zeller, 1994; Dallimore and Mgimeti, 2003; Porteous, 2003 and Akpan *et al.*, 2013), who reported a negative association between credit source distance and farmers' access to formal credit. Entrepreneurial training and access to formal credit are positively correlated, implying that a unit increase in the hour of training resulted in an increase in access to formal credit by 132%. This is understandable because, participation of farmers in capacity building programs increases their chances to get credit from formal institutions. This is because participation in training and extension activities increases awareness among beneficiaries, which enables them to gain adequate knowledge for better utilization of credit, as well as adoption of advanced technologies in farming operations and management. This fact highlights the importance of training and capacity building in allowing poor households to access formal credit. However, given the magnitude of the slope coefficients of this variable makes it to be the most important policy variable that influence famers' access to credit in Abuja. The result is in consonant with (Akpan*et al.*, 2013).

On the other hand, years of schooling and broiler parent stockenterprise were positively related with amount of credit obtained from formal sources, while household size had an indirect association with it. This means that, ceteris paribus, a unit increase in years of schooling and being a commercial broiler farmer relative to been a turkey farmer will result in an increase in the amount of loan farmers obtained by124% and 29% respectively. Increase in years of farmers' formal education would expose them to various sources of credit and thus increase tendency to acquire more credit too. In addition, it will enhance access to various information about credit sources and some criteria needed to formalize any loan acquisition procedures. This result supports literature that education and access to loan are positively related (Duflo and Crépon, 2008;Akuduru, 2012; Akpan *et al.*, 2013). The relationship between amount of credit and broiler parent stock enterprise is perhaps not a surprising one due to capital intensive nature of the enterprise. Surprisingly, a unit increase in household size, all other things being equal, will lead to a decrease in likelihood of amount of loan by 71.5%. This might be a reflection of an increased number of earning members in the household. On the other hand, it could be that other members of the household were used as labor resources in performing farming operations instead of demanding credit from formal institutions tohire workers. The result is in line with earlier submission by Quoc

(2012) but in sharp disagreement with Akpan*et al.* (2013), Oluwasola and Alimi (2008), Olomola and Gyimah-Brempong, (2014) who reported a positive association.

## CONCLUSION

This study assessed the factors influencing access to credit by poultry farmers in Abuja, Nigeria. The results showed that distance to credit sources and hours of entrepreneurial training were positively associated with access to credit. On the other hand, years of schooling and broiler production enterprise positively influenced the amount of credit obtained, while household size negatively determined it. Thus, to improve poultry farmers' access to credit, the study recommended that financial services should be expanded in areas close to rural areas where most farms are located as this would improve their access to credit. In addition to that, provision of training to framers in aspects of credit and poultry enterprise should be considered. Also, to improve on the amount of credit obtained, the study recommended that government should focus more on the policies that support educational development in the area. Finally, policy on ban of importation of frozen poultry products into the country should be sustained.

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**Table 4: Estimates of Heckman two-step model for the likelihood of access to credit and amount of credit obtained (₦) in the study area**

| Variable | Probability of access to credit | | | Amount of credit obtained | |
|---|---|---|---|---|---|
| | Coefficient | P-value | Marginal effect | Coefficient | P-value |
| Age | -0.0104 | 0.578 | -0.0180 | -0.1628 | 0.111 |
| Sex | 0.0105 | 0.801 | -0.4788 | -3.0959 | 0.623 |
| Marital status | 0.0449 | 0.885 | 0.3234 | 3.0850 | 0.502 |
| Schooling | 0.2080 | 0.442 | 0.1524 | 2.2399*** | 0.000 |
| Membership of association | 0.1021 | 0.771 | 0.7929 | 3.4365 | 0.821 |
| Poultry experience | -0.0013 | 0.959 | -0.0099 | 0.2473 | 0.502 |
| Household size | -0.1008 | 0.163 | -0.0332 | -0.7156*** | 0.000 |
| Extension visit | 0.9287** | 0.019 | 0.0316 | 3.8959 | 0.437 |
| Agricultural Insurance | 0.8530 | 0.139 | 0.2683 | 4.7105 | 0.559 |
| Distance to credit source | -0.5139* | 0.098 | -0.1240 | -0.4089 | 0.316 |
| Entrepreneurial training | 0.0003*** | 0.014 | 1.3212 | 0.0578 | 0.522 |
| Collateral | 0.2969 | 0.004 | 0.0019 | 5.5738 | 0.899 |
| Types of poultry enterprises | 0.0900 | 0.636 | 0.2970 | 4.2942** | 0.040 |
| Broiler parent stock | 0.5878** | 0.035 | 0.0970 | 17.3510 | 0.920 |
| Commercial broiler | 0.2853 | 0.126 | 0.6608 | 0.0400 | 0.210 |
| Commercial layer | -1.57e-08 | 0.603 | 0.3794 | 1.8e-08 | 0.561 |
| Value of stock | -0.1442*** | 0.413 | | -2.1908*** | 0.131 |
| Constant | | | | | |
| Statistics | | | | | |
| Total observation | 107 | | | | |
| Censored observation | 74 | | | | |
| Mills lamda | 8.497*** | | | | |
| Wald Chi2 | 56.95*** | | | | |
| Pro >Chi2 | 0.0000 | | | | |

Note: *10% significant, **5% significant, ***1% significant