

Factors Influencing Access of Poultry Farmers to Credit: The Case of the Agricultural Development Bank (ADB) in Ga East Municipality, Ghana

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Abstract This study investigated the factors influencing poultry farmers' access to credit with particular reference to the Agricultural Development Bank (ADB) in the Ga-East Municipality. Primary data was collected from a total of 61 poultry farmers sampled from three communities in the Municipality using the simple random sampling technique. To determine the extent to which borrowers' and enterprises' characteristics influenced access to ADB's credit, the regression probit model was employed. Results of the study indicated that majority of the farmers belonged to a farmer-based organization. Secondary occupation and farmer-based organization membership positively influenced access to credit and were significant at ($p < 0.01$) level, market turnover and age on the other hand, directly and indirectly influenced access to credit and were significant at ($p < 0.05$) and ($p < 0.10$) levels respectively.

Keywords Access, Agricultural Development Bank, Credit, Farmers, Ghana, Poultry

1. Introduction

Agriculture the world over continues to contribute to economies in various ways. In developing economies, for instance, it is the livelihood of the very many who live in the rural areas. Now-a-days much of the world's agriculture is struggling and starved of the much needed investment[1]. Heads of state and governments meeting at the 2005 world summit at the United Nations stated that they recognize the need for access to financial services, in particular for the poor, including through microfinance and microcredit[2]. This reflects what must be and increasingly is a concern of development and poverty eradication policy at national and local levels. Agriculture is typically a capital-intensive industry with investments in farmland, building, machinery, equipment, and breeding livestock dominating the asset structure of most types of farms[3]. However many of these investments have been identified to depend on success to appropriate financial services of which the provision of, and access to credit is prominent[4].

Agricultural credit plays a very important role in the development of the agricultural sector. It can meet a range of needs and can be critical to the success of agriculture. In fact, circumstantial evidence shows that where agriculture has

grown more rapidly, institutional credit has expanded more rapidly[5]. Credit does not only serve as a valuable source of liquidity in responding to risk, but also readily available credit has facilitated many of the significant, long-term challenges in the farm sector increasing commercialization, larger farm sizes, fewer farms, greater capital intensity, adoption of new technology, stronger market coordination and others[6].

The need for credit can, therefore, not be overemphasized. In Ghana, this need gave rise to the establishment of the Agricultural Development Bank (ADB Act 286) in 1965 to promote the development and modernization of agriculture and allied industries, one of which is the poultry industry under the livestock subsector. The ADB is currently the largest provider of credit to farmers in Ghana. It, however, allows for a balance in the distribution of its loanable fund between the agricultural sector and the rest of the economy. Below shows the banks performance in terms of credit supply to the agric sector and recovery rates as a whole.

ADB faces difficulty in recovering agricultural loans compared with loans for personal and non-agric purposes. According to the ADB, some farmers feel loans made available to them are from government sources and therefore are not under any compulsion to pay back. Other reasons given for this include: inadequate logistics to monitor farmers, unreliable locations and other risks associated with the enterprise with regards to production and marketing. They also face many challenges when evaluating the credit worthiness of agricultural borrowers. This is because it is

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argued that lenders cannot distinguish between borrowers of different degrees of risk and that loan contracts are subject to limited liability whereby borrowers are not responsible for repaying loans out of their pockets if the projects returns are less than the debt obligation[7].

Faced with a complex risk environment such as lengthy biologically based production, marketing activities, contractual relationships with other parties, changes in asset values and other related income-generating activities, farmers are also faced with risks associated with financial leverage and unanticipated changes in interest rates, debt servicing requirements, and credit availability. Again, when subject to financial analysis, the farm sector's financial statement indicate a reasonable solvent industry, but one that experiences chronic liquidity problems and cash flow pressures resulting from relatively low, but volatile, current rates-of-return to farm assets. These characteristics make the farm sector's debt servicing capacity and credit worthiness vulnerable to downward swings in farm income and land values[3].

The constraints that the farm sector faces in accessing financial services can be classified as internal and external factors[8]. The internal factors are lack of collateral due to poor quality of farm assets, poor financial management, risky nature of farm production and inability to prepare viable project proposals. The external factors are high interest rates; high cost of service delivery to the sector and perception of financial services providers about farming as being high risk. And even where banks advance loans to the farm sector, the preference is for funding less risky and shorter duration processing activities and trade, cold storage facilities, and large-scale milling and plywood manufacture, rather than for primary production (like poultry) and fishing.

In view of the above, if credit is available according to [9], the general question raised in this study is, what factors influence access to ADB's credit, especially i) what sources of credit are available to poultry farmers, ii) what factors influence access to ADB's credit, iii) what do poultry farmers use credit from the ADB for and iv) what constraints do poultry farmers face in accessing credit from the ADB.

2. Materials and Methods

The target population was all poultry farmers in the Ga-East Municipality. Three communities namely: Abokobi, Boi and Oyarifa were chosen for the study. This was because most of the poultry farmers were concentrated there and they formed the majority farmers in the municipality. Sixty one poultry farmers were selected randomly within these three communities. Nine were sampled from Abokobi, 15 from Boi and the remainder from Oyarifa. Both primary and secondary data were used for the study from poultry farmers and on loan amount to the agric sector and their recovery rates from the ADB, and list of poultry farmers from MoFA Directorate of Ga East Municipality. Descriptive statistics such as frequency table, charts and percentages were used to analyse the data collected to achieve objectives one, three and four. To achieve objective two, the probit model was used to analyse the factors influencing access to ADB's credit by poultry farmers in the Ga East Municipality.

3. Results and Discussion

3.1. Farmer Based Organization (FBO) Membership

Table 1. FBO Membership

Attributes	Frequency	Percent
Members	50	82.0
Non-Members	11	18.0
Total	61	100.0

From Table 1, it is observed that the people who normally patronized the services of ADB were members of various farmer based organisations. This implies that, loan acquisition is highly serviceable by people who belonged to groups.

3.2. Sources of Credit

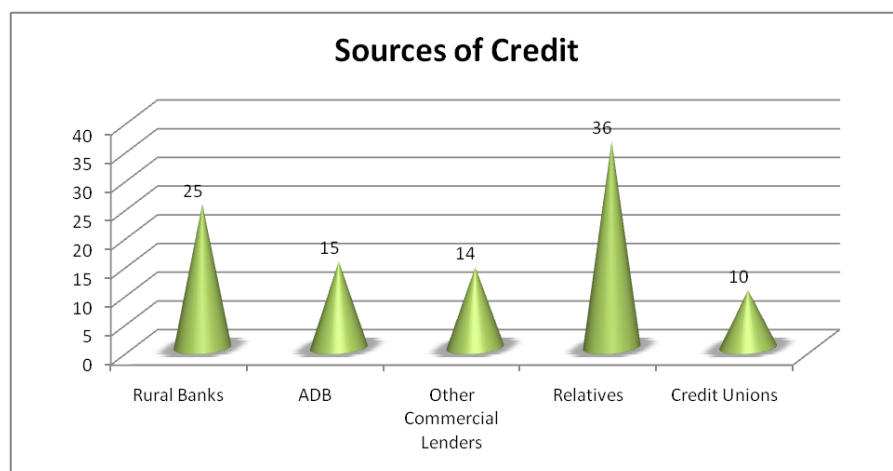


Figure 1. Sources of credit available to poultry farmers

Fig. 1 indicates that most farmers preferred to borrow from informal financial institutions, citing reasons such as the cumbersome procedures, funds not given at the very time they are needed, high interest rates among others from formal lenders. They rather would prefer borrowing from other private commercial lenders and rural banks for reasons above. The study however revealed that most farmers had multiple accounts and mostly supplemented formal institutional funding with credit from either friends or relatives or other convenient sources.

3.3. Analysis of Factors Influencing Access to Credit

Table 2. Empirical estimates of factors influencing access to credit

Variable	Coefficient	Std. Error	z-Statistic	Prob.
AGE	-0.076229*	0.043247	-1.762634	0.0780
CRDHIS	8.254718	8307468	9.94E-07	1.0000
FBOMEM	3.791352***	1.137724	3.332402	0.0009
MKTOV	0.212115**	0.089860	2.360515	0.0182
SECOCC	3.227193***	1.088831	2.963907	0.0030
YRSEXP	0.063609	0.107407	0.592222	0.5537
C	-2.799414	1.958642	-1.429263	0.1529

Mean dependent var 0.819672 S.D. dependent var 0.387651
 S.E. of regression 0.233126 Akaike info criterion 0.562956
 Sum squared resid 2.934780 Schwarz criterion 0.805187
 Log likelihood -10.17015 Hannan-Quinn criter. 0.657889
 Restr. log likelihood -28.78531 Avg. log likelihood -0.166724
 LR statistic (6 df) 37.23031 McFadden R-squared 0.646690
 Probability(LR stat) 1.59E-06 Jarque Bera 718.6696 (0.0000)
 Obs with Dep=0 11 Total obs 61
 Obs with Dep=1 50
 ***Significant at 1%, **Significant at 5%, *Significant at 10%
 Source: Field Survey, 2009.

Cross-sectional data of poultry farmers in the study area was collected and analysed with the probit model to determine borrowers and enterprises characteristics that influenced their access to credit. The probit model seeks to explain the probability of access to ADB's credit as a result of the six independent variables. The signs of the coefficients of the regressors largely determine their influence on access to credit [10, 11]. Of the 61 farmers sampled, 82% accessed credit and the remainder (18%) not accessing credit from the ADB. Among the characteristics that significantly influenced access to credit were age, secondary occupation, market turnover, and FBO membership of poultry farmers. The coefficient of age was negative and that of secondary occupation was positive and was significant at 10 and 1% respectively. This is consistent with [12], who found that credit demand (desire to use credit) was strongly influenced by age and occupation.

The negative coefficient (of age) indicates an indirect relationship between age and access to credit and the positive coefficient (of occupation), a direct relationship between secondary occupation and access to credit. An increase in age will decrease the probability of a poultry farmer to access credit. On the other hand one's desire for credit increases with his/her occupation. The coefficients of market turnover and FBO membership were positive and significant at 5 and 10% respectively; an indication of a direct relationship between market turnover and FBO membership to access to ADB's

credit. The strong significance of FBO membership and secondary occupation could be explained by the fact that ADB prefers more effective social collateral as alternatives to the more traditional forms of collateral. According to [10] members of responsible formal organization (like FBO's) plus formal credit experience are viewed positively by lenders for loan approval/reception and credit needs being met.

It was further stated that secondary occupation serve as alternative sources of funds and livelihood for individuals in failing circumstances of main businesses, including agricultural enterprises. The McFadden R-squared of 0.65 implies that the regressors account for 65% of variation in the regressands. The normality test showed a Jarque Bera value of 718.6696 significant at 1%. We therefore reject the null hypothesis of normally distributed residuals. The data collected showed a minimum of -3.858, maximum 1.702, mean -1.92E-05 and skewness of -3.535. These account for the heavy outliers and the subsequent rejection of the null hypothesis. All these can be observed in Table II.

3.4. Uses of Credit

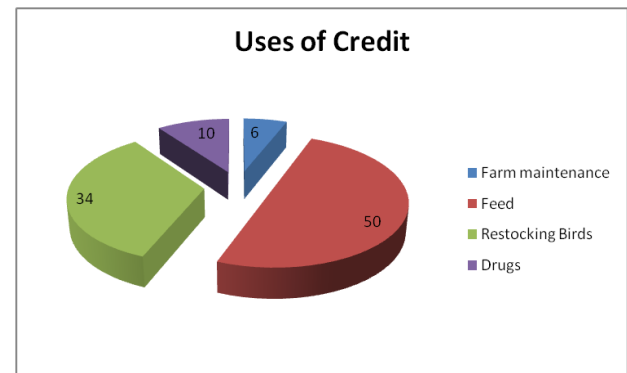


Figure 2. Uses of credit by the poultry farmers

Feed constitutes 50% of credit use on cost of production (Fig. 2). According to the farmers, maize and vitamin supplements constitute mainly high costs of feed in poultry production. The availability and price of feed among others affect the high cost associated with feed. Other uses of credit include restocking of day-old birds (34%), drugs (10%) and farm maintenance (6%). In times of disease outbreaks (as was with Bird Flu in 2007), uses of credit mainly for the prevention of such diseases are bound to increase. [13] showed that about 42% of the respondents receive credit for the purpose of rearing livestock/poultry, 21% of them were interested in development of micro enterprise, and 19% use their loans for agricultural purposes. The implication is that farmers will use credit available for the purpose they deem fit. But there is a controversy surrounding the fungibility of credit in the form of cash (that farmers are likely to use their credit for purposes other than why they requested for the credit). Funds borrowed for one stated purpose may be used for something else entirely [14].

3.5. Constraints to Credit Acquisition

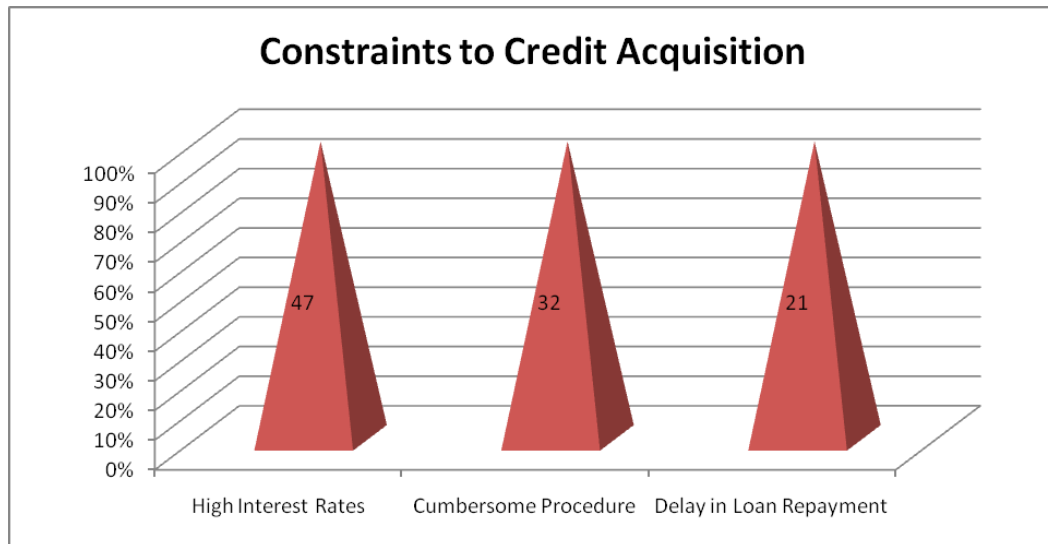


Figure 3. Constraints to credit acquisition by the poultry farmers

Among the constraints that continue to limit both individuals and group of poultry farmers' access to ADB's credit are high interest rates (47%), cumbersome procedure (32%) and delay in the repayment of loans by individual members of farmer groups (21%) as can be seen in Fig. 3. Between 2005 and 2007 for instance, ADB's interest rates have risen from 18 and 25%, thus preventing the many who desired to use ADB's credit. The cumbersome loan making process coupled with the delay in making loans available at the time they are needed for production prevent many farmers from individually using ADB's credit. According to the farmers, valuation of security and the associated documentations constrain their interest to use ADB's credit. The greatest challenge to accessing credit for farmers in a group is the delay in repayment of loans by individual members. This tends to delay the group as a whole in subsequent attempt to apply for loans[15]).

4. Conclusions

A good number of the poultry farmers (46%) still preferred to borrow from informal sources to supplement that from the formal sources. Estimates of the probit model revealed that age, FBO association, market turnover and secondary occupation(s) of poultry farmers significantly affected the use of ADB's credit. Other variables such as years of experience and credit history of farmers did not significantly affect the use of ADB's credit.

Credit use indicated that feed constituted 50% of credit use with the remainder (50%) going for other costs of production such as restocking of birds, purchase of drugs and farm maintenance. Among the constraints identified by poultry farmers affecting the access to credit included high interest rates, cumbersome loan procedures and delay in the repayment of loans among individual members of FBOs.

It is recommended that there should be co-operation of indigenous NGO's with ADB to relieve the latter of the

bureaucratic procedures of financial intermediation. The intermediation such NGO's could play would be to work on behalf of individual borrowers. Credit terms and conditions should be reviewed to allow for production by small scale poultry producers. There should be concessional interest rate special for poultry production. MOFA should strengthen small FBO's to empower poultry farmers to access credit and finally, venture capital should be provided for experienced poultry farmers.

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