Full Length Research Paper

Factors influencing credit access among small-scale poultry farmers in the Sunyani West District of the Bono region, Ghana

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The study assessed the factors influencing credit access among small-scale poultry farmers in the Sunyani West District. In the sampling process, multi-stage sampling procedure was utilized. Data was analyzed descriptively and inferentially. The study showed that small-scale poultry farmers in the Sunyani West District accessed credit facilities mainly from informal sources such as relatives, friends, traders, moneylenders among others. Again, the study discovered that relatives and friends were the main informal sources where they obtained credit facilities in the Sunyani West District. Additionally, results of the regression analysis showed that there was a significant association between small-scale poultry farmer’s individual factors such as education, household size, size of farm, belongingness of farm based organization, savings and access to credit facilities. Again, the results revealed that there was huge connection between institutional elements such as capacity of households to repay loans, interest rate, collateral security and small-scale poultry farmer’s access to credit facilities. Moreover, the study discovered that challenges such as high interest rate on loans, high administrative and insurance costs on credit facilities from financial institutions, lack of collateral securities to secure loans and low educational background and lack of management skills impeded small-scale poultry farmer’s access to credit facilities.

Key words: Credit, poultry, multiple regression, Sunyani West District Assembly, Ghana.

INTRODUCTION

The contribution of poultry production to the socio-economic development of people all over the world especially those living in rural places cannot be over emphasized (Nimoh et al., 2011). This sector of agriculture has been identified as one of the main sources where majority of small-scale farmers earn an income for their livelihood (Adetayo et al., 2013).

Nevertheless, poultry production especially small-scale producers lack the necessary boost in terms of access to funding to contribute to national development. According to Hazell (2010), poultry production is regularly a resource-demanding industry with reserves in farmland, structures, technology, tools and breeding livestock dictating the investment portfolios of most kinds
of farms. Yet, a significant number of these ventures have been recognized to rely upon the provision and access to appropriate financial services. For most developing economies, access to agricultural credit is necessary to sustain growth, which ensures food security and regular income (Akwa-Sekyi, 2013). It is for this reason that many governmental and non-governmental organizations such as the Food and Agricultural Organization (FAO), the United Nations (UN) have invested so much into agriculture to ensure food security all across the globe, which can potentially contribute to achieving the UN's Sustainable Development Goals (SDGs).

Smallholder poultry production largely comprised of chickens that account for most of the poultry population in Low to Middle Income Countries (LMICs) (Gilbert et al., 2015). Smallholder poultry production arrangements involve raising of chicken greater than 200 broilers and or greater than 100 layers (Thieme et al., 2014). This system is generally observed in rural, asset-poor zones that frequently also go through periods of food scarcity (Wong et al., 2017). This system has been coordinated with human occupations for many years, improving nourishment, revenue and nutrition wellbeing of the rustic poor (Alders and Pym, 2009). They are available to weak sets of the public, and offer family units with earnings and healthfully rich food nutrients.

In developing economies, small-scale poultry production accounts for 60-90% of the poultry population in numerous LMICs through Africa and Asia (Akinola and Essien, 2011; Guéye, 2000; Mapiye et al., 2008). Particularly, small-scale poultry production in Africa supplies 70-90% of poultry items and account for 20-32% of all animal protein consumption (Alabi et al., 2006; Branckaert and Guéye, 2000; Tadelle et al., 2003). This sector of agriculture offers work chances to a momentous section of the populace (Adetayo et al., 2013; KIPPRA, 2016). It also offers prospect for farmers to improve food security and alleviate destitution through direct utilisation of their meat and by selling their meat to gain a revenue (Ayerakwa, 2017; Omondi et al., 2017).

In Sub-Saharan Africa, almost a quarter of households (24%) are engaged in poultry farming in medium-sized cities (Omondi et al., 2017). Small-scale poultry raising is described by low output levels because of inadequate access to funding for the purchase of basic poultry tools, materials and feed. This situation discourages many small-scale poultry farmers from increasing their productivity. Several studies have shown that a limited finance is one of the major issues hampering poultry production of small-scale farming households in rural areas in Africa (Lemessa and Gemechu, 2016; Sebopetji and Belete, 2009; Duy et al., 2012; Chauke et al., 2013; Nouman et al., 2013).

In Ghana, the poultry sector contributes to approximately 40% of the country’s animal protein supply and is able to deliver enough poultry for self-reliance (FASDEP, 2002). According Anang et al. (2013), 80% of commercial poultry producers in Ghana operate at the small and medium scale levels. Like many other countries in the Sub-Saharan zone, majority of small-scale farmers in Ghana face challenges accessing credit from financial institutions in running their poultry production (Owusu and Yankson, 2007). Factors such as gender, household earnings, farm capital, improved innovation reception, contact with extension, farm location, and awareness have been identified to be significant factors hampering poultry production in Ghana (Owusu, 2017).

The Bono Region formerly called the Brong Ahafo Region is seen as one of the key areas where poultry is heavy produced. In 2009, the Region was recognized as the highest broiler meat production (Anang et al., 2013). As indicated by the Food and Agricultural Organization (2014), the region ranked first in terms of the number of poultry flocks produced. The total number of birds produced in the year 2009 was a little less than 11 million making up almost 30% of the national output followed closely by Ashanti Region with a total number of about 10 million birds constituting 28% of the national output (Anang et al., 2013).

The Sunyani West District (SWD) is predominantly an agrarian communality with as high as 60.4% of family units in the district involved in farming. Poultry is the dominant reared in the district accounting for 70.0% of livestock rearing in the district. According to FAO (2014), the district is recognized, as one of the best performing poultry clusters in Ghana, as such it is justifiable to select the district as case for this study.

Despite this significant influence of poultry production to socio-economic development, the sector is still saddled with many problems most importantly with regard to financing. Several studies such as Enyim et al. (2013). Anang et al. (2013) have all shown that lack of access to banks’ credit facilities have had negative impacts on small-scale poultry production and agriculture as a whole. In Ghana, the privation of credit accessibility has been noticed as the single most important challenge facing the poultry industry and the agricultural sector (Kusi et al., 2015). In responds to this, successive governments in Ghana have instituted and implemented policies, measures and strategies to improve and boost the agricultural sector over the years. These efforts have led to the establishment of financial institutions such the Agricultural Development Bank (ADB), National Investment Bank (NIB) and Ghana Commercial Bank (GCB) to provide credit for rural farmers including smallholder poultry farming households within the nation. Although some strides have been achieved by these financial institutions particularly the ADB, yet farmer’s especially small-scale poultry farmers lament that they face challenges in accessing credit facilities from financial institutions. Previous studies have attempted to establish the factors that contribute to farmer’s inability to access
credit facilities from financial institutions. For instance, Anang et al. (2013) established that factors such as gender, family unit revenue, farm resources, enhanced innovation reception, extension contact, farm location, and awareness have been identified to be significant factors hampering poultry production in Ghana. Again, Nimoh et al. (2015) also discovered that factors that influence credit access of poultry farming households in the Ga East Municipality of Ghana include age, alternative employment, market sales, and membership of poultry FBO as well as social collateral. The Sunyani West District (SWD) is one of the districts of the newly created Bono Region and have poultry farmers who face similar challenges like the other districts in Ghana. The district has over 47.1% of the population engaged in various agricultural activities including small-scale poultry farming, but majority of these small-scale poultry farmers are unable to obtain credit from financial institutions (Ghana Statistical Service, 2010). The lack or limited access to credit facilities has affected the farmer’s ability to purchase agricultural inputs such as feeds, drugs, feeding troughs, build modern storage facilities among others in the Sunyani area, (Akwaas-Sekyi, 2013). This has subsequently led to low production of farmers. It is in the light of this that this study seeks to analyze the factors influencing credit access among smallholder poultry farming households in the Sunyani West District.

**METHODOLOGY**

**Description of the study area**

The municipality is located between latitude 7° 19’N and 7° 35’N and longitudes 2° 08’ W and 2° 31’ W. It shares boundaries with Wenchi Municipality to the North East, Tain District to the North, Berekum and Dormaa East to the West, Sunyani District to the South East and to the Eastern borders of the District are Tano North and Ofinso North District. In terms of land size, Sunyani West District has overall land mass of approximately 1,658.7 km² (Sunyani West District Assembly, 2014) (Figure 1).

**Population, sample size and sampling technique**

Multi-stage sampling procedure was utilized for this investigation. First, Sunyani West District was purposively selected based on the
intensive poultry farming activities within the Bono region. Second, five communities were purposively selected due to the fact that majority of small-scale poultry farmers were inter-sparse within these communities in the district. The targeted small-scale poultry farms were selected from Odumase, Dumasua, Nsoatre, Chiraa and Fiapre communities. Again, a simple random sampling method was utilized to pick at random 100 poultry farmers from the five farming communities. A list of the entire population in which every subject is listed only once was secured from the Ministry of Food and Agriculture office in the district. Every subject in the list was numbered and simple random sampling method was used to choose the subjects from each community, which constituted the sample size. The number of poultry farmers in the communities was selected proportionately grounded on the number of poultry farms in each community. The sample size for this investigation was calculated based on the following procedure provided by Yamane (1967):

\[
n = \frac{N}{1 + N(e^2)} = \frac{198}{1 + 198(0.072)} = 100
\]

Where \( n \) = sample size, \( N \) = population size and \( e \) = level of precision (Table 1).

Method of data collection

Both primary and secondary data were utilised for the study. The study obtained primary information directly from the respondents through survey using a semi-structured questionnaire and interview guide as the main research instruments. Secondary data was obtained from secondary sources such as textbooks, journals, magazines, institutional reports, newspapers, internet materials, published and unpublished student thesis among others.

Data analysis

Descriptive analysis involving frequency tables, pie chart and bar graph were employed to categorize the sources from which small-scale poultry farmers access credit facilities in the Sunyani West District. The second objective was analyzed by a linear regression to consider the elements influencing access to credit facilities by small-scale poultry farming units. The linear regression was utilized to test the association between the dependent and independent variables (Access to Credit) to unit change in the educational levels and this could be deduced that most of the people engaged in smallholder poultry farming activities within the Sunyani West Municipality.

Table 1. Sampled respondents from each community.

| Community | Number of poultry firms | Sample size |
|-----------|-------------------------|-------------|
| Odumase   | 41                      | 23          |
| Dumasua   | 34                      | 17          |
| Nsoatre   | 34                      | 17          |
| Chiraa    | 53                      | 25          |
| Fiapre    | 36                      | 18          |
| **Total** | **198**                 | **100**     |

Source: Own survey (2020).

The detailed equation with the variables is as follows:

\[
\text{Access to Credit} = \beta_0 + \beta_1 \text{Age} + \beta_2 \text{Gender} + \beta_3 \text{Level of Education} + \beta_4 \text{HouseholdSize} + \beta_5 \text{Marital Status} + \beta_6 \text{FarmSize} + \beta_7 \text{Savings} + \beta_8 \text{Membership of Farm Based Organization} + \beta_9 \text{Collateral Security} + \beta_{10} \text{Capital} + \beta_{11} \text{Capital} + \beta_{12} \text{Interest Rate} + \beta_{13} \text{Terms of Credit} + \beta_{14} \text{Awareness of Lending Institutions in the area} + \epsilon
\]

Where; Access to Credit was measured by funds required to purchase necessary agricultural inputs and tools to improve on their production in the Sunyani West Municipality, \( \beta = 1 \ldots 9 \) coefficient used to quantify the sensitivity of the dependent variable (Access to Credit) to unit change in the independent variables. \( X_1 = \text{Age of farmers}, X_2 = \text{Gender}, X_3 = \text{Level of Education}, X_4 = \text{Household Size}, X_5 = \text{Marital Status}, X_6 = \text{Farm Size}, X_7 = \text{Savings}, X_8 = \text{Membership of farm based organization}, X_9 = \text{Collateral Security}, X_{10} = \text{Capital}, X_{11} = \text{Capacity}, X_{12} = \text{Interest Rate}, X_{13} = \text{Terms of the Credit}, X_{14} = \text{Awareness of Lending Institutions in the area}, \epsilon = \text{is the error term to capture unexplained variations in the model and which is assumed to be normally distributed with mean zero and constant variance.}

RESULTS AND DISCUSSION

Demographic characteristics of the farmers

Table 2 shows the demographic features of the farmers. From the table, it can be seen that majority (59.0%) of the respondents were men compared to 41.0% who were women. This showed that men compared to women dominated small-scale poultry farmers in the Sunyani West District. This situation was as a result of custom barriers that restricted women to only household chores and other less physically demanding farming activities, unlike men who engaged largely in more physically demanding farming and other income-generating activities; hence their less involvement.

Again, from Table 2, it can be seen that 31.0% of the respondents had JHS as their highest educational level, 25.0% had SHS as their educational level whiles 18.0% had schooled to the Primary School and Tertiary education level. The remaining 16.0% had no formal education as their educational level respectively. From this outcome, it is inferred that the most of the small-scale poultry farming households in the Sunyani West District had lower educational levels and this could affect their ability to effectively manage their farms.

Moreover, it can be seen that majority (37.0%) of the respondents fell within the age bracket of 26-35, 28.0% also fell within the 18-25 age range whiles 18.0% between 36-45 years' age bracket. The remaining 11.0 and 6.0% of the respondents also fell within the 46-55 and 56 and above ages respectively. From this outcome, it can be deduced that most of the people engaged in smallholder poultry farming within the Sunyani West District were in their active working age since the work demands a lot of energy and activities; hence, young and active men were mostly employed unlike older men.

Furthermore, it is noticed from Table 2 that most (34.0%) of the farmers were married whiles the remaining
Table 2. Demographic characteristics of the respondents.

| Characteristics         | % (Number) |
|-------------------------|------------|
| **Gender**              |            |
| Male                    | 59.0 (59)  |
| Female                  | 41.0 (41)  |
| **Age category**        |            |
| 18-25 years             | 28.0 (28)  |
| 26-35 years             | 37.0 (37)  |
| 36-45                   | 18.0 (18)  |
| 46-55                   | 11.0 (11)  |
| 56 and above            | 6.0 (6)    |
| **Level of education**  |            |
| None                    | 16.0 (16)  |
| Primary                 | 18.0 (18)  |
| JHS                     | 31.0 (31)  |
| SHS                     | 25.0 (25)  |
| Tertiary                | 6.0 (6)    |
| Other                   | 4.0 (4)    |
| **Farmer group affiliation** |        |
| Yes                     | 63.0 (63)  |
| No                      | 37.0 (37)  |
| **Farm size**           |            |
| Small-scale             | 56.0 (56)  |
| Medium scale            | 44.0 (44)  |
| **Level of participation** |       |
| Part-time               | 24.0 (24)  |
| Full time               | 76.0 (76)  |
| **Purpose**             |            |
| Profit                  | 52.0 (52)  |
| Alternative income      | 14.0 (14)  |
| Livelihood              | 34.0 (34)  |
| **Marital status**      |            |
| Single                  | 22.0 (22)  |
| Married                 | 34.0 (34)  |
| Widow                   | 28.0 (28)  |
| Divorced                | 16.0 (16)  |

Source: Field Data, 2020; Percentage (Frequency).

22.0, 28.0 and 16.0% were singles, widowed and divorced respectively. This was an indication that most of the smallholder poultry farming households within the Sunyani West District were matured people who were married or had been married before hence, had a responsibility of taking care of their homes, thereby engaging in the poultry production business.

Sources of credit facilities to small-scale poultry farmers in the Sunyani West District

From Table 3, majority (58.0%) of the farmers accessed credit facilities from the informal sources compared to (31.0%) that sourced credit from the formal or institutional sources. This outcome implied that most of the smallholder poultry farming households in the Sunyani West District did not access credit facilities for their poultry business from the formal or institutional sources but mainly from the informal sources such as relatives, friends, traders, moneylenders among others. These groups provided small to medium size loans to their fellow farmers based on social networks. Most often, the well-to-do households in the farming communities had the capacity to transfer loans to the poor rural farmers (Osei-Assibey, 2009). They give loans to needy farmers with relatively no interest and mostly do not operate under any regulatory body or any central monetary authority (Helmke and Levitsky, 2003). Loans offered by lenders normally do not require any strict regular payment schedule (Fichera, 2010). Even though, there are no formal mechanisms in place to compel borrowers to conform strictly to payment timelines, borrowers who fail to portray creditworthiness may be refused any opportunities for future loans (Fichera, 2010).

Informal sources of credit facilities to small-scale poultry farmers in the Sunyani West District

From Table 4, it was discovered that 34% of the respondents, which forms the majority, answered in the affirmative that they obtain their credit facilities from relatives and friends. This was followed by 23% of the respondents who also confirmed in the affirmative that they obtain their credit facilities from Rotating Savings and Credit Association (ROSCA). Twenty percent and 16% of the respondents obtain their credit facilities from traders and moneylenders respectively. The remaining 7% obtained their credit facilities from landlords. This information implies that relatives and friends are the main sources where small-scale poultry farmers obtain their credit facilities from in the Sunyani West District. This outcome is in accordance with the works of several authors such as (Aryeetey, 2008; Osei-Assibey, 2009; Owusu-Antwi and Antwi, 2010; Fichera, 2010) who also established that non-institutional credit providers do not operate under the regulation of any central monetary authority and provide credit to others primarily based on social networks. Again, these people are mainly farmers or traders who have accumulated surplus income from their productive activities and have the capacity to transfer loans to the poor rural farmers at no stringent requirement and any strict regular payment schedule.
Table 3. Source of credit facilities to small-scale poultry farmers in the SWD.

| Sources of credit                  | Percentage | Number |
|-----------------------------------|------------|--------|
| Formal or Institutional           |            |        |
| Yes                               | 31.0       | (31)   |
| No                                | 58.0       | (58)   |
| Sometimes                         | 11.0       | (11)   |
| Informal                          |            |        |
| Yes                               | 58.0       | (58)   |
| No                                | 31.0       | (31)   |
| Sometimes                         | 11.0       | (11)   |

Source: Field Data (2020); Percentage (Frequency).

Table 4. Informal Sources of Credit Facilities to small-scale poultry farmers in the SWD.

| Specific informal sources of credit | Percentage | Number |
|-------------------------------------|------------|--------|
| Rotating Savings and Credit Association (ROSCA) | 23.0       | (23)   |
| Traders                             | 20.0       | (20)   |
| Landlords                           | 7.0        | (7)    |
| Moneylenders                        | 16.0       | (16)   |
| Relatives and friends               | 34.0       | (34)   |
| Total                               | 100        | (100)  |

Source: Field Data, 2020; Percentage (Frequency).

(Aryeetey, 2008).

Moreover, the ROSCA has been noticed as one of the major sources where poultry farmers obtained their credit facilities in Ghana because it serve as social collateral since most of these poor farmers do not have properties to use as collateral securities (Nimoh et al., 2015).

Formal or institutional sources of credit facilities to small-scale poultry farmers in the Sunyani West District

On the institutional sources of credit facilities to smallholder poultry farming households within the Sunyani West District, the study outcome as shown in Table 5 revealed that 57% of the respondents obtained their credit facilities from Commercial banks particularly from the GCB Bank as against 43% of the respondents who did not or seldom received credit from such sources. This outcome implied that the GCB was the main commercial bank that provided credit facilities to the smallholder poultry farming household within the Sunyani West District. This finding substantiates the study of Fichera, (2010) who concluded that Commercial Banks are major formal financial organizations that offer credit facilities to the agrarian sector in Ghana.

Again, as shown in Table 5, 62% of the respondents forming the majority affirmed that the Agricultural Development Bank (ADB) was the major Development Bank where small-scale poultry farmers obtained credit facilities within the Sunyani West District. However, 38% of the respondents did not or seldom received credit from such sources. This outcome implies that Development banks particularly the Agricultural Development Bank (ADB) is the main institutional source where majority of small-scale poultry farmers in the Sunyani West District access credit facilities for poultry and general agricultural business. According to Kusi et al. (2015), the ADB was established to advance the growth and transformation of farming and associated enterprises, one of which is the poultry business under the domesticated animals subsector. The ADB is presently the biggest supplier of credit to farming households in Ghana. Although some strides have been achieved by these financial institutions particularly the ADB, yet farmers’ especially small-scale poultry farmers lament that they face challenges in accessing credit facilities from the ADB.

Furthermore, the study outcome as shown in Table 5 revealed that, Community and Rural Banks (CRBs) were another major source where small-scale poultry farmers obtained credit facilities within the Sunyani West District. It was revealed that almost all, 70% of the respondents...
Table 5. Formal or institutional sources of credit facilities to small-scale poultry farmers in the SWD.

| Specific formal sources of credit | Percentage | Number |
|----------------------------------|------------|--------|
| Commercial Bank (GCB)            |            |        |
| Yes                              | 57.0       | (57)   |
| No                               | 33.0       | (33)   |
| Sometimes                        | 10.0       | (10)   |
| RCBs (Wamfie and Nsoatreman Rural Bank) |        |        |
| Yes                              | 70.0       | (70)   |
| No                               | 12.0       | (12)   |
| Sometimes                        | 18.0       | (18)   |
| Development Banks (ADB)          |            |        |
| Yes                              | 62.0       | (62)   |
| No                               | 17.0       | (17)   |
| Sometimes                        | 21.0       | (21)   |

Source: Field Data, 2020; Percentage (Frequency).

received credit from the CRBs compared to about 30% who did not or seldom received credit facilities from such sources. This outcome implied that RCBs were some of the institutional sources where some small-scale poultry farmers obtained their credit facilities in the Sunyani West District.

Factors influencing access to credit facilities by small-scale poultry farmers in the Sunyani West District

To achieve this objective, multiple regression analysis was performed to determine the effect of both individual and institutional factors on credit accessibility by smallholder poultry farmers within the Sunyani West District.

Individual factors influencing access to credit facilities by small-scale poultry farmers in the Sunyani West District

A multiple regression was run to analyze the influence of the explanatory variables on the dependent variable. The results analyzed suggested that the five independent variables explained 75.7% of small-scale poultry farmer’s access to credit facilities as represented by the adjusted $R^2$. Again, a unit increase in level of education, household size, farm size, member of farm based organization and savings led to a 0.321, 0.654, 0.124, 0.547 and 0.124 unit’s increment in credit accessibility by smallholder poultry farmers respectively. These variables were identified to be significantly correlated to farmer’s access to credit facilities. These variables were also observed to be significant at 5 and 10% significant levels. This implied that these variables had an influence on small-scale farmer’s access to credit facilities. From Table 6, it could be seen that small-scale poultry farmer’s access to credit facilities was influenced by large changes in farmer’s individual factors such as education, size of household, size of farm, membership of farm based organization and savings. Many similar investigations like Anang et al. (2013) and Nimoh et al. (2015) confirm this finding.

Institutional factors influencing small-scale poultry farmer’s access to credit facilities in the Sunyani West District

The analysis illustrates that taking all other explanatory variables at zero, a unit increment in capacity of households to repay loans will lead to a 0.5367 units increase in access to credit by smallholder poultry farming households. In addition, a unit increase in interest rate, collateral security and awareness of lending organizations within the area will lead to 0.0013, 0.0275 and 0.1312 units increments in credit access by smallholder poultry farming households respectively. These variables were identified to be significantly connected to farmer’s access to credit facilities at 1 and 5% significance levels. This also suggest that these factors such as capacity of households to repay loans, interest rate, collateral security and awareness of lending organizations in the area have significant effect on determining farmer’s credit accessibility in the Sunyani West District. The six independent variables altogether
explained 63.5% of small-scale poultry farmer’s access to credit facilities as represented by the adjusted \( R^2 \). This also suggests, a unit change in institutional factors results in approximately 64% change in credit accessibility by smallholder poultry farming households in the Sunyani West District. Moreover, the variance inflation factors (VIF) of the explained variables of the model were all below 10, displaying lower level of collinearity of the model. This diagnostic test shows that the entire model shows goodness-of-fit for the study (Table 7).

**Challenges small-scale poultry farmers face in accessing credit facilities from financial institutions in the Sunyani West District**

From Table 8, 79.0% of the respondents representing majority are in agreement to the statement that high interest rate on credit facilities from financial institutions was their major challenge. This outcome indicates majority of small-scale poultry farming households within the Sunyani West District find it difficult accessing credit facilities because of the high interest rate on loans. This outcome confirms the work of Nimoh et al. (2015) who discovered that most poultry farmers in Ghana lacked access to credit facilities because of high interest rate on loans. The limited access to credit facilities has affected the farmer’s ability to purchase agricultural inputs such as feeds, drugs, feeding troughs, and build modern storage facilities among others. This has subsequently led to low production of small-scale poultry production in the Sunyani West District. This result backs the statement of Kusi et al. (2015) that lack or limited access to credit has been noticed to be the single most important challenge facing the poultry industry and the agricultural sector in Ghana.

Similarly, the study discovered that 93% of the respondents forming majority are in total agreement that high administrative and insurance costs on credit facilities from financial institutions were challenges to them when accessing credit. This outcome also implies that a chunk of the smallholder poultry farmers within the Sunyani West District faced the challenge of high administrative and insurance costs on credit facilities, which deter them from securing loans financial institutions. The challenge of high administrative and insurance costs on credit facilities from financial institutions is as result of the fact that most financial institutions consider the agricultural sector to be more dangerous, risky and unrewarding comparative with different areas (Enyim et al., 2013). The high service charges alone deter farmers from accessing credit facilities from the banks, which is a major challenge to accessing credit from the financial institutions. This outcome is similar to the study of Adeyinka et al. (2015) who observed that high administrative cost is among the key challenges confronting farmers in obtaining credit facilities from banks in Africa. He stressed that credit to smallholder farming households is more costly and several banks are reluctant to embrace a policy that favour lending to the peasant farmers.

Again, the study discovered that, majority (86%) of respondents were in total agreement to the fact that demands for collateral security was a major challenge in accessing credit facilities from financial institutions. This outcome implied that demand for collateral security was a key problem confronting majority of the small-scale poultry farming households in accessing credit facilities in the Sunyani West District. It can be deduced from this outcome that most small-scale poultry farmers in Ghana do not have landed properties to be used as collateral securities to secure loans hence were more probable to be refused loans compared to their colleagues who have

| Variable                             | Coefficient | Standard error | EXP(B) | t-statistic | Sig. |
|--------------------------------------|-------------|----------------|--------|-------------|------|
| Constant                             | 1.841       | 0.657          | 0.347  | 2.147       | 0.032|
| Age                                  | -0.147      | 0.157          | -0.347 | -2.547      | 0.802|
| Gender                               | -0.287      | 0.174          | 1.547  | 3.547       | 0.160|
| Marital Status                       | 0.654       | 0.354          | 0.874  | 2.577       | 0.072*|
| Level of Education                   | 0.321       | 0.036          | 0.257  | 3.887       | 0.056*|
| Household Size                       | 0.654       | 0.547          | 0.647  | 1.687       | 0.085*|
| Farm Size                            | 0.124       | 0.325          | 0.531  | 1.457       | 0.031**|
| Member of Farm Based Organization    | 0.547       | 0.650          | 0.412  | 1.351       | 0.010**|
| Savings                              | 0.124       | 0.014          | 0.354  | 1.585       | 0.046**|
| \( R^2 \)                            | 0.7219      |                |        |             |      |
| Adjusted \( R^2 \)                   | 0.757       |                |        |             |      |
| F-Statistic                          | 701.277     |                |        |             |      |
| Durbin Watson                        | 0.8905      |                |        |             |      |

** and * = 5% and 10% significance levels respectively.
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Table 7. Results of multiple regression analysis of institutional factors influencing small-scale poultry farmers’ access to credit facilities in the SWD.

| Variable                                      | Coefficient | Standard error | EXP(B)  | t-statistic | Sig.  |
|-----------------------------------------------|-------------|----------------|---------|-------------|-------|
| Constant                                      | 1.6936      | 0.1116         | 1.4742  | 15.2686     | 0.000 |
| Terms of the credit                           | 0.0414      | 0.0393         | 0.0354  | 1.0631      | 0.289 |
| Capital                                       | 0.0012      | 0.0397         | 0.0781  | 0.0238      | 0.981 |
| Capacity of households to repay loans         | 0.5367      | 0.0614         | 0.4176  | 8.8461      | 0.000*** |
| Interest Rate                                  | 0.0013      | 0.0335         | 0.0635  | 0.0407      | 0.096* |
| Collateral Security                           | 0.0275      | 0.0511         | 0.1277  | 0.5243      | 0.006*** |
| Awareness of lending institutions in the area  | 0.1312      | 0.0372         | 0.0588  | 3.5222      | 0.000*** |
| $R^2$                                         | 0.6436      |                |         |             |       |
| Adjusted $R^2$                                | 0.6352      |                |         |             |       |
| F-Statistic                                   | 84.92       |                |         |             |       |
| Durbin Watson                                 | 0.479       |                |         |             |       |

***, ** and * = 1, 5 and 10% significance level respectively.

Table 8. Challenges small-scale poultry farmers face in accessing credit facilities from financial institutions.

| Challenges                                                                 | % (SA) | % (A) | % (D) | % (SD) | % (Total) |
|---------------------------------------------------------------------------|--------|-------|-------|--------|-----------|
| High interest rate on credit facilities from financial institutions      | 33.0(33) | 46.0(46) | 12.0(12) | 9.0(9) | 100.0(100) |
| High administrative and insurance costs on credit facilities from financial institutions | 43.0(43) | 50.0(50) | 6.0(6) | 1.0(1) | 100.0(100) |
| Demand for collateral security                                           | 47.0(47) | 39.0(39) | 9.0(9) | 5.0(5) | 100.0(100) |
| Low educational background and lack of management skills                 | 35.0(35) | 47.0(47) | 9.0(9) | 9.0(9) | 100.0(100) |

Source: Field Survey (2020).

landed properties. This result is in accord with the study of Anang et al. (2013); Nimoh et al. (2015) and Owusu (2017) who all discovered that most peasant farmers including small-scale poultry farmers in Ghana with no collateral securities are more probable to be denied credit by financial institutions.

Moreover, it was revealed that majority (82%) of the respondents agreed that low educational background and lack of management skills impeded their access to credit facilities from the financial institutions. The outcome implied that most small-scale poultry farmers were challenged with low educational background and lack of management skills when accessing credit facilities. It is an undeniable fact that most smallholder poultry farming households within the Sunyani West District and in Ghana as whole have lower level of education usually primary and secondary education and this have a significant influence on their access to credit facilities. This suggests that well-educated farmers may be considered by financial institutions to have much knowledge on how to manage their poultry farms well compared to those with lesser educational levels. This finding established the work of Bendig et al. (2009) who proved that well-educated farmers are more probable to obtain credit from the formal sources.

CONCLUSION AND RECOMMENDATIONS

The study assessed the elements influencing credit access among small-scale poultry farmers in the Sunyani West District of the Bono region. The study established that smallholder poultry farmers within the Sunyani West District accessed credit facilities for their poultry business mainly from informal sources such as relatives, friends, traders, moneylenders, and Rotating Savings and Credit Association (ROSCA) among others. Secondly, this study revealed that small-scale poultry farmer’s access to credit facilities in the Sunyani West District was largely affected by farmer’s individual factors such as educational level, size of household, size of farm, membership of farm based organization and saving. The results of the regression analysis on institutional elements affecting credit accessibility by small-scale poultry farmers revealed factors such as capacity of households to repay loans, interest rate, collateral security and awareness of lending institutions in the area had significant influence on determining farmer’s access to credit facilities.

Finally, it has been established that several challenges such as high interest rate on loans, high administrative and insurance costs on credit facilities from financial institutions, lack of collateral securities to secure loans,
and low educational background and lack of management skills were the main bottlenecks that impeded smallholder poultry farming households access to credit facilities within the Sunyani West District.

The study recommends that the regime should come out with policies that will boost the banking sector to offer credit facilities to farming households at lower interest rate. This can be achieved by the government subsidizing interest rate charge on agricultural credit facilities. This will encourage more people especially the youth to develop interest to venture into the agricultural sector to produce more food for the nation. Again, the government should institute and implement measures that will help farmers with inadequate collateral security to access credit facilities from banks. The Bank of Ghana (BoG) should put in place policies and measures that will help reduce and curb the high service and administrative charges by the banks on credit facilities offered to the agricultural sector. The Government of Ghana should enact laws to raise taxes on the importation of frozen chicken; adopt policies to enhance small-scale poultry financing in Ghana; develop proper training institutions for poultry farmers; encourage the consumption of local poultry products whiles the industry offer relevant training and live demonstration programmes for its members.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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