

## Original Research Article

### **DETERMINANTS OF ACCESS TO FORMAL CREDIT AND PERFORMANCE OF SMALLHOLDER FARMERS: EVIDENCE FROM KUMBA MUNICIPALITY**

**Comment [OO1]:** You can reframe the title as "Determinants of Access to Credit and Performance of Smallholder Farmers in Kumba Municipality, South West Region of Cameroon".

#### Abstract

**Comment [OO2]:** Use bone.

Cameroon like any other developing country in the world, main economic back bone is agriculture. Owing to this sector, it is mostly dominated by smallholder farmers. Limited finance remains the major challenge hampering production productivity and income of smallholder farmers. Micro finance institutions are quoted to be the major suppliers of finance to these farmers but the farmers's cry of lack of adequate farm credit persist. Thus this study aimed at investigating the impact of the determinants of access to credit on the performance of smallholder farmers in the Kumba municipality. Specifically, the study sought to examine the impact of collateral security as a determinant of access to credit on the performance of smallholder farmers; to ascertain the impact of cost of credit facility as a determinant of access to credit on the performance of smallholder farmers and finally, to evaluate the impact of knowledge/awareness of financial procedures as a determinant of access to credit on the performance of smallholder farmers in Kumba municipality. The study adopted a descriptive survey research design. Using a multi-stage procedure, the study adopted the sample size of 272 smallholder farmers in the Kumba municipality. Questionnaire was used for data collection. The data was analysed descriptively with the use of frequency tables and inferentially, using the regression analysis. The study found out that demographic factors (gender, age and level of education) have an influence on access to capital by farmers in Kumba municipality. The findings also revealed that collateral security, cost of credit facilities and knowledge/awareness of financial procedures have a significant impact on the performance of smallholder farmers as indicated by the t-values of 4.74, 4.73 and 17.43 respectively. The F-statistics of 21.19 which was greater than the critical F-value of 0.157 needed for significance at 0.05 level of significance implied that there exists significant relationship between the determinants of access to credit

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(collateral security, cost of capital and knowledge and awareness of financial procedures) and performance of small holder<sup>2</sup> farmers in Kumba municipality. The study recommended amongst others that government should provide exclusive financial services to farmers and also ensure the smooth running and establishment of policies governing agriculture. Micro financial institutions should provide financial literacy to smallholder farmers and also develop new financial products that will cater for the needs of smallholder farmers both in the Kumba municipality and Cameroon.

**Comment [004]:** Delete this.

Keywords:- Smallholder farmers, Formal Credit, Performance

**Comment [005]:** You can still add to these keywords to make it five. You can use words or phrases.

## 1.0 Introduction

Agriculture continues to be a fundamental instrument for sustainable development and poverty reduction in Cameroon; yet, financial constraints in the sector remain pervasive, agriculture remains costly and finances inequitably distributed, severely limiting smallholders, capability to compete (Mandiefe, 2015; Besong, 2013; World Bank, 2013). Consequently, cultivation practices in Cameroon continue to be characterized by the use of basic tools, small farm size, low capital input, high labor inputs, limited control of plant pests and diseases, and low yields (MINADER 2014, 2015).

**Comment [006]:** This is not in your references.

Credit provision is one of the principal components of rural development, which helps to attain rapid and sustainable growth of agriculture. Farm credit is a temporary substitute for personal savings, which catalyzes the process of agricultural production and productivity. To boost agricultural production and productivity, farmers have to use improved agricultural technologies. However the adoption of modern technologies is relatively expensive and small farmers cannot afford to self-finance. As a result, the utilization of agricultural technologies is very low. It is argued that enhanced provision of rural credit would accelerate agricultural production and productivity (FAO, 2016).

Kumba the capital of Meme division and the agricultural hub of the South west region (SWR) has contributed enormously to the agricultural output of the southwest region over the years. Just like other areas of the SWR, the majority of agricultural activities in Kumba are carried out by small holder farmers. This farmers generally cultivate on small pieces of land using rudimentary tools. The availability and access to food to a large extent depend on increased food production as well

59 as income to meet the household's consumption needs. Funds to carry out timely purchases of  
60 cash inputs such as fertilizer, quality seeds, herbicides and pesticides into agricultural production,  
61 as well as to buy capital equipment like hoes, cutlasses and water pumps has long been regarded  
62 as one of the critical constraints inhibiting increased food productivity in smallholder agriculture  
63 (Akanga, 2017; Chena & Kimengsi, 2017).

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64 Most of these Smallholder farmers finance their agricultural activities through equity funds from  
65 their on-farm and off-farm activities (Seini, 2002; Sadick, Egyir and Amegashie, 2013). Due to  
66 the subsistence nature of agriculture practiced by the smallholder farmers their on-farm and off-  
67 farm activities are usually small scale and yield little income. As such, they are not able to invest  
68 in improved production technologies that will increase food productivity. This challenge plaguing  
69 the agricultural sector in Kumba is further collaborated by an interview granted by George Njeck,  
70 a cocoa farmer in the Mbonge Subdivision in Southwest Region by the Post Newspaper, Business  
71 News of Thursday, 4 September 2014, and he said: "We need money more than the Cameroon  
72 Government," while explaining that it is in order to improve on their productivity.

**Comment [008]:** These are not in your references.

73 Many of these farmers cannot farm on a large scale because they mostly use family labour for  
74 farming, so if the family size is small, farming a large piece of land would be very difficult. The  
75 only other possibility would be to get paid labour for a larger farm which entails money to pay  
76 this extra labour. Banks and microfinance institutions always ask for collateral security before  
77 giving out loans, and these farmers have only their farm lands as collateral. The principal problem  
78 is that most of these farm lands have no land title, which makes them invalid to be used as  
79 collateral security making it difficult for them to have a loan. Also, the cost of accessing this  
80 institutions is perceived high by the farmers. Worse still, some of the farmers do not have  
81 information and knowledge of the available financial services for them, their importance's and  
82 their accessibility modalities. This has contributed in limiting their access to formal credit. The  
83 inability for these farmers to access credits have serious implications for development of the  
84 economy of the SWR in particular and Cameroon in General.

85 For Cameroon to be able to attain the Vision 2035 and meet its developmental targets, the small  
86 scale farming sector should be given due attention. Many efforts have been made by the  
87 government of Cameroon to make funds available to famers so as to increase agricultural output  
88 in Cameroon. A good example is the agricultural bank, but one problem remains, the principal

89 problem is not the lack of funds, the real problem lies in how to access the funds. Unfortunately, it  
 90 is perceived to serve more the large scale and commercial farmers and has left the small scale  
 91 subsistent farmers who happen to be in a majority cut off the chain. It is against this back drop  
 92 that this study sought to investigate the determinants of access to credit by small holder farmers  
 93 and to ascertain its relationship with the performance of the farmers, using Kumba as a case study.  
 94 Specifically, the study sought: to examine the relationship between collateral security, cost of  
 95 credit and knowledge/awareness of financial procedures as a determinant of access to credit and  
 96 the performance of smallholder farmers in Kumba municipality

## 97 2.0 Literature Review

98 Historical development and the associated culture, of the banking system underpin the problem of  
 99 the emphasis on the provision of collateral as a primary condition in lending. Banks have always  
 100 adopted a risk adverse stance towards small firms, with an accompanying inability to focus  
 101 on the income generating potential of the venture, when analyzing the likelihood of loan  
 102 repayment (Beaver, 2002). Credit constraints can occur when banks increase collaterals for loans.  
 103 As a result, low interest borrowers (including SHFs) may be removed from the list of potential  
 104 customers and banks may skip these customers (Stiglitz & Weiss, 1981). Hence will be a great  
 105 effect in their performance in that their output will turn to decrease. This is supported by  
 106 Byaruhanga (2013) who conducted a study to examine the empirical relationship between  
 107 credit terms, credit accessibility and the performance of agricultural cooperatives in  
 108 Rwanda. The result revealed that there is an inverse relationship between credit terms,  
 109 accessibility and the performance of agricultural cooperatives.

110 Lack of access to credit facilities is almost universally indicated as key problem for small and  
 111 micro enterprises. In most cases, even where credit is available mainly through banks, the  
 112 entrepreneurs may lack freedom of choice because the banks' lending conditions may force the  
 113 purchase of heavy, immovable equipment that can serve as collateral for the Micro financial  
 114 institution. Credit constraints operate in variety of ways in Cameroon where undeveloped capital  
 115 market forces farmers to rely on self -financing or borrowing from friends and relatives. Lack of  
 116 access to long-term credit for micro, small and medium smallholder farmers forces them to  
 117 rely on high cost short term finance (Wanjohi & Mugure, 2008).

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118 In a study by Hallberg, (2002), he singled out high risks associated in lending smallholder farmers  
119 and fixed costs associated in acquiring sound information about the borrower by financial  
120 institutions as the major driving force to the high cost of credit. High transaction costs do  
121 therefore not only increase the cost of borrowing, but can also restrict access to external finance  
122 for some borrower groups. While transaction costs are restraining for all borrowers, there are  
123 arguments that they are even more constraining for small and micro enterprises.

124 According to Masuko & Marufu (2003)), high transactions cost of borrowing emanating from  
125 these two sources discourage small farmers, artisans, entrepreneurs from availing themselves of  
126 formal credit. Here the market fails from the demand side. This was also supported by Gonzalez -  
127 Vega (1976) who found that the transactions cost of lending to small borrowers to be higher than  
128 that of larger borrowers, thus discouraging these small borrowers to access micro credit. Girabi &  
129 Mwakaje (2013) posit that the major factors hindering smallholder farmers' access to credit were  
130 reported to be lack of information, inadequate credit supply, high interest rates and defaulting. It  
131 has been estimated that only five percent of the farmers in Africa and about fifteen percent in Asia  
132 and Latin America have had access to formal credit; and on an average across developing  
133 countries five percent of the borrowers have received eighty percent of the credit (Bali, 2001).  
134 Access to affordable agricultural credit enables farmers, who constitute the majority of population  
135 in most developing countries, to adopt new technology and take advantage of new economic  
136 opportunities to increase production and income (Mbugua, 2012).

137 Many smallholder farmers do not have access to formal credit that may have been cost prohibitive  
138 to have access to micro credit, hence an increase on their performance. To more effectively  
139 facilitate smallholder farmer's access to micro credit, there is need to better understand and  
140 identify the major factors that affects smallholder farmers' accessibility to micro credit and the  
141 influence of accessing credit on smallholder farmers' performance. Elsevier (2016), according to  
142 him, to more effectively facilitate the development and investment in scale-appropriate  
143 machinery, there is a need to better understand the factors associated with agricultural machinery  
144 purchases and service provision. Consequently, due to this gap, it will require both the knowledge  
145 of the present study and requires further research.

146 Even though they have been a plethora of research carried out in the thematic area, a lot of  
147 emphasis has been laid on ascertaining the contribution of micro credits alleviating poverty (Toh,

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2013: Akanga 2017), agricultural productivity (Besong, 2011; Ogunremi, 2013), agricultural variability challenges and agricultural productivity (Tingem, 2008; Innocent, 2015; Balgah, 2017), agricultural extension services and wellbeing (Nyambi, 2012; Besong, 2011; Ogunremi, 2013). However, to the best of the researcher's knowledge, study has not been carried out in Kumba municipality on the topic. Also, the authors who researched on the determinants of access to microcredits mostly looked collateral security and in line with the performance of small and medium size enterprises. This study intends to fill the gap by assessing the impact of the determinants to access of credits on performance of smallholder farmers. The study did not limit the variables to collateral and demographic factors as most studies did but expand it to include knowledge/awareness and cost of credit facilities.

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Also, Unlike Okaten and Osil (2004) which made use of the probit model, this study adopted the linear regression analysis to ascertain the impacts of the determinants of access to credit on the performance of smallholder farmers in Kumba municipality SWR of Cameroon. To more effectively facilitate smallholder farmers' access to micro credit, there is need to better understand and identify the major factors that affects smallholder farmers' accessibility to formal credit and the influence of accessing to credit on smallholder farmers' performance. Elsevier (2016) posit that to more effectively facilitate the development and investment in scale-appropriate machinery, there is a need to better understand the factors associated with agricultural machinery purchases and service provision. Consequently, due to this gap, it will require both the knowledge of the present study and requires further research. This study will contribute to knowledge by filling this gaps, thereby, updating and expanding the exiting literature.

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### 3.0 Materials and Methods

#### 3.1 Study Area

Kumba is a city in Southwest Region, Western Cameroon also known as K town. Kumba has an estimated population of about 400.000 inhabitants with about  $\frac{3}{4}$  of this population falling within the youthful age group. Kumba which is the headquarters and the economic capital of Meme Division of Cameroon is located between latitude  $3^{\circ}, 4''N$  of the equator and longitude  $9^{\circ}, 10''$  east of the Greenwich Meridian with a total surface area of about  $800\text{km}^2$  (Kumba Urban Council, 1995). It is bounded to the north by Barombi Kotto, to the south by Mukonje and Matumba II, to the east by Mabanda and to the west by Kake II (Figure 1). Kumba is a town in Cameroon with a

colonial history; it has gone through pre-colonial through colonial and post-colonial developments and can therefore be used to picture the Cameroonian situation. In addition, it acts as a redistribution centre for all divisions of the Southwest Region and it is a transit zone to Nigeria through Mundemba and other creek zones of the Region.

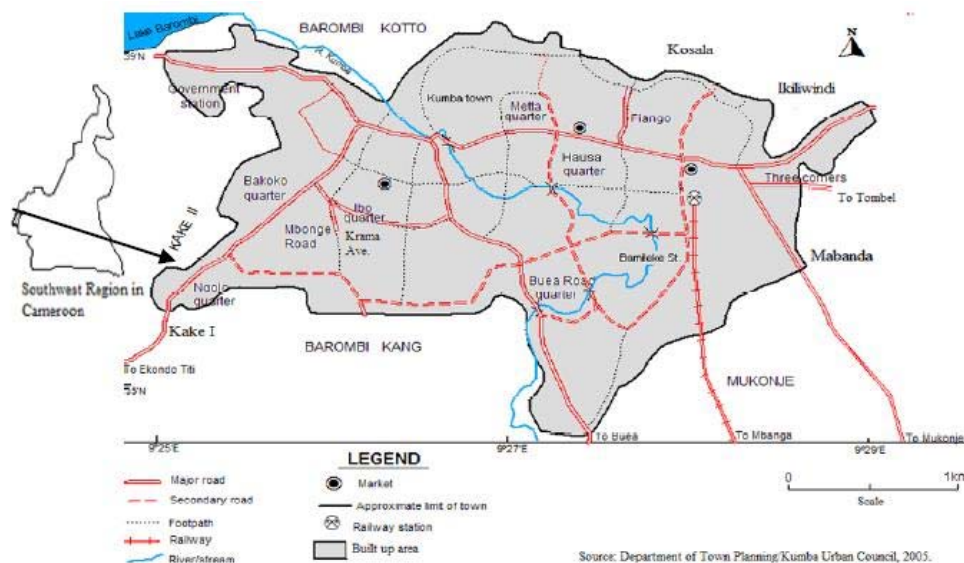


Figure 1. The map of Kumba (Department of Town Planning/KUC, 2005).

### 3.2 The Study Design

The study adopted the survey research design. This design was adopted because it enabled the researcher obtain data about practices, situations at one point in time through questionnaires and interviews in the field.

### 3.3 Population and Target Population

The total population of Kumba is about 400.000 inhabitant and the target population constituted all smallholder farmers registered under cooperative societies. The information of the registered farmers were obtained from the Delegation of Agriculture and Rural Development in Kumba. This information is presented on the table 3.1.

**Table 3.1 Targeted population**

| Groups | No of members | Desired Sample Size |
|--------|---------------|---------------------|
|--------|---------------|---------------------|

|              |            |            |
|--------------|------------|------------|
| Cocoa        | 472        | 151,7541   |
| Cassava      | 166        | 53,37116   |
| Cocoyam's    | 87         | 27,97163   |
| Maize        | 77         | 24,7565    |
| Plantains    | 34         | 10,93144   |
| Yams         | 10         | 3,21513    |
| <b>Total</b> | <b>846</b> | <b>272</b> |

194 Source: Delegation of Agriculture and Rural Development, Kumba (2017)

**Comment [OO15]:** This is wrong , please crosscheck it.

### 195 3.5 Sampling Technique and Sample Size

196 The researcher used a multi- stage sampling procedure. The first stage, the farmers were group  
 197 according to their activities (cocoa, cassava, cacao yams, plantains and yams) as seen on table 3.1  
 198 bellow. In stage two, a proportionate sampling procedure was used to determine the number of  
 199 farmers to be selected from each of the group based on the sample size. Finally, in stage three, the  
 200 farmers were randomly selected with the use of the balloting system to make up the determined  
 201 proportion of each category.

**Comment [OO16]:** Use coco yams.

### 202 3.6 Data Collection

203 Data for the study were collected from primary sources; It involves the use of structured  
 204 questionnaire, interviewing method were employed for the collection of data.

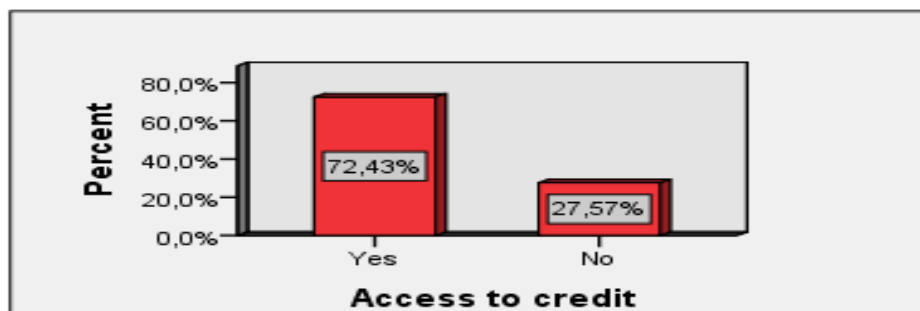
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## 206 4.0 Findings and Discussion

### 207 4.1 Demographic information of Respondents

208 The first part of the presentation of findings was done by cross-tabulations to ascertain whether  
 209 some demographic factors (gender, age and level of education) have an influence on access to  
 210 credit in Kumba municipality. Access to credit was further cross-tabulated with Performance of  
 211 smallholder farmers. The findings are represented on table 4.1, 4.2, 4.3 and 4.4 respectively.ss

### 212 Table 4.1 Access to Credit by smallholder farmers in Kumba Municipality



213

214 Source: Field survey, 2017

215 Table 4.1 shows that majority of the respondents, that is 72.43% do not have access to credit and  
 216 only 27.57% of the population have access to credit in the Kumba municipality.

217

218 **Table 4.2 Access to credit \* Gender of smallholder farmers Cross tabulation**

|                  |     | Gender of smallholder farmers |        | Total |
|------------------|-----|-------------------------------|--------|-------|
|                  |     | Male                          | Female |       |
| Access to credit | Yes | 95                            | 102    | 197   |
|                  | No  | 27                            | 48     | 75    |
| Total            |     | 122                           | 150    | 272   |

219 Source: Field survey 2017

220

221 The findings on table 4.2 reveals that, more female (102) do not have access to credit, as  
 222 compared to males (95). Accordingly, 48 female have access to credit and 27 have access to  
 223 finance.

224

**Comment [OO17]:** Always use evidences from the literature to support your own research findings either to validate the claim or refute it.

225 **Table 4.3 Access to credit \* Level of Education and access to credit Cross tabulation**

|  | Level of Education  |                   |                     |         | Total |
|--|---------------------|-------------------|---------------------|---------|-------|
|  | No formal education | primary education | Secondary education | Diploma |       |
|  |                     |                   |                     |         |       |

|                  |     |    |     |    |   |     |
|------------------|-----|----|-----|----|---|-----|
| Access to credit | Yes | 78 | 80  | 35 | 0 | 197 |
|                  | No  | 20 | 45  | 10 | 4 | 75  |
| Total            |     | 98 | 125 | 45 | 4 | 272 |

Source: Field survey 2017

The findings of table 4.3 reveals that majority of the respondents 197, cannot access finance due to little or no formal education (that is; 78 are farmers with no formal education, 80 are farmers with primary education and finally 35 farmers having secondary education). Thus, it can be seen that most farmers do not have access to finance due to little or no formal education.

**Table 4.4 Access to credit \* Performance of smallholder farmers Cross tabulation**

|                  |  | Performance of smallholder farmers |                           |                    |                               |                    |                                               | Total |
|------------------|--|------------------------------------|---------------------------|--------------------|-------------------------------|--------------------|-----------------------------------------------|-------|
| Access to credit |  | increase in productivity           | increase in annual return | improve technology | increases the skills of labor | Increase farm size | increase the use of fertilizer and chemical s |       |
|                  |  |                                    |                           |                    |                               |                    |                                               |       |
| Yes              |  | 27                                 | 40                        | 35                 | 36                            | 26                 | 24                                            | 188   |
| No               |  | 16                                 | 18                        | 16                 | 14                            | 5                  | 13                                            | 82    |
| Total            |  | 43                                 | 58                        | 51                 | 50                            | 31                 | 37                                            | 270   |

Source: Field survey 2017.

Apart from the demographic factors that influence access to finance, the study also look at the influence of access to credit on performance. Access to credit was cross-tabulated with

performance of the smallholder farmers to find out if access to credit can influence the performance of farmers. Table 4.4 revealed that if smallholder farmers have access to credit, it will increase productivity (27), annual return (40), technology (35), skill labour (36) farm sizes (26) and use of inputs (24). On the other hand, if they don't have access to credit there will be a decrease in productivity (16), annual return (18), technology (16), skill labour (14) farm sizes (5) and use of inputs (13). To conclude, from Table 4.4, it indicates that majority (72.57%) smallholder farmers do not have access to finance. Thus, revealing that following the analysis on table 4.4 above, there is a decrease in the performance of smallholder farmers.

250

## 251 4.2 Presentation of Findings in line with the Objectives of the Study

252

253 **Table 4.5 Means interpretation keys**

| Range     | Extent of Influence |
|-----------|---------------------|
| 1.0 – 1.5 | Very Small Extent   |
| 1.6 – 2.5 | Small Extent        |
| 2.6 – 3.5 | Moderate Extent     |
| 3.6 – 4.5 | Great Extent        |
| 4.6 – 5.0 | Very Great Extent   |

254

Table 4.5 would be used to explain the extent to which factors influence the access to credit. The scale use is from 1 to 5. Where 1.0-1.5 is very small extent, 1.6 – 2.5 small extent, 2.6 – 3.5 moderate extent, 3.6 – 4.5 great extent and 4.6 – 5.0 very great extent

258 s

259 **Table 4.5.1 Influence of collaterals securities**

| N <sup>0</sup> |                                                                                  | Mean | St. Deviation |
|----------------|----------------------------------------------------------------------------------|------|---------------|
| 1              | The collateral demanded by most financial institutions are so high               | 3.61 | 1.304         |
| 2              | Smallholder farmers do not have enough assets to stand as a collateral for loans | 3.85 | 1.214         |
| 3              | There are many financial institutions that                                       |      |               |

|   |                                                                                |             |             |
|---|--------------------------------------------------------------------------------|-------------|-------------|
|   | give collateral free loans                                                     | 3.63        | 1.149       |
| 4 | One of the easiest way to secure a loan is through group guarantee             | 3.50        | 1.377       |
| 5 | Limited capital means limited collateral which will limit your access to loans | 3.61        | 1.362       |
| 6 | Collateral requirement affect the capital of smallholder farmers               | 3.85        | 1.232       |
|   | <b>Average</b>                                                                 | <b>3.68</b> | <b>1.26</b> |

Source: Primary Data from field survey, (2017)

The findings in table 4.5.1 shows that, the high collaterals demanded influenced access to credit to a great extent ( $M = 3.61$ ,  $SD = 1.304$ ), while the fact that smallholder farmers don't have enough assets influences access to credit to a great extent ( $M = 3.85$ ,  $SD = 1.214$ ), so do the fact that MFI's give free loan influenced access to credit to a great extent ( $M = 3.63$ ,  $SD = 1.149$ ), adding to that, group guarantee influenced the access to credit to a moderate extent ( $M = 3.50$ ,  $SD = 1.377$ ), and the limited collaterals influenced the access to finance to a great extent ( $M = 3.61$ ,  $SD = 1.362$ ) and finally collateral requirement influences the access to credit to a great extent ( $M = 3.85$ ,  $SD = 1.232$ ). Thus to conclude, collateral securities influence the access to credit to a great extent (Av,  $M = 3.64$ ,  $SD = 1.26$ ). Showing that access to credit was highly restricted by the stringent collateral requirements.

**Table 4.5.2 the influence of cost of capital**

| N <sup>0</sup> |                                                                                                 | Mean | St. Deviation |
|----------------|-------------------------------------------------------------------------------------------------|------|---------------|
| 1              | Financial institutions charge high interest rates                                               | 3.77 | 1.288         |
| 2              | Taxes, Loan processing charges and inspection fees prior to the awarding of loans are very high | 3.93 | 1.314         |
| 3              | There is room for negotiation of the interest rate with most financial institutions             | 3.75 | 1.368         |
| 4              | High inflation level of taxes and fluctuation of interest rates increases cost of credit        | 3.80 | 1.413         |

|   |                                                                           |             |             |
|---|---------------------------------------------------------------------------|-------------|-------------|
| 5 | Smallholder farmers do not meet up the repayment period                   | 3.77        | 1.381       |
| 6 | The cost involved in lending procedure also increases the cost of credit. | 3.97        | 1.265       |
|   | <b>Average</b>                                                            | <b>3.83</b> | <b>1.34</b> |

Source: Primary Data from field survey (2017)

On the extent to which cost influences the access to credit, table 4.5.2 shows that, the high interest rate influence access to credit in a great extent ( $M = 3.77$ ,  $SD = 1.288$ ), while the high taxes, loan, proceeding charges influences the access to credit to a great extent ( $M = 3.93$ ,  $SD = 1.214$ ), followed by no negotiating room of interest rate influences access to credit to a great extent ( $M = 3.75$ ,  $SD = 1.368$ ), also fluctuation of taxes influenced access to credit to a great extent ( $M = 3.80$ ,  $SD = 1.413$ ), adding to that, repayment period influenced access to credit to a great extent ( $M = 3.77$ ,  $SD = 1.381$ ), and finally fluctuation of interest rates influenced the access to finance to a great extent ( $M = 3.97$ ,  $SD = 1.265$ ). Generally, cost of credit influence access to credit to a great extent ( $AV$ ,  $M = 3.83$ ,  $SD = 1.34$ ). Thus proving that high interest rate, taxes, legal fee, insurance and travelling expense are the cost factors that influences the access to credit.

**Table 4.5.3 Influence of knowledge/awareness**

| N <sup>o</sup> |                                                                                        | Mean  | St. Deviation |
|----------------|----------------------------------------------------------------------------------------|-------|---------------|
| 1              | Smallholder farmers lack the knowledge of accessing finance                            | 1.85  | 1.178         |
| 2              | smallholder don't see the need of accessing micro credit                               | 1.99m | 1.318         |
| 3              | Smallholder famers are aware how to go about securing credit facilities                | 2.29  | 1.321         |
| 4              | They are aware of the chances the are exposed to when they have access to micro credit | 2.09  | 1,355         |
| 5              | Smallholder farmers are aware who is offering credit facilities                        | 2.29  | 1.394         |

|   |                                                                                |             |             |
|---|--------------------------------------------------------------------------------|-------------|-------------|
| 6 | Smallholder farmers have the ability to compile financial records and accounts | 1.98        | 1.245       |
|   | <b>Average</b>                                                                 | <b>2.08</b> | <b>1.29</b> |

Source: Primary Data from field survey (2017)

In regards to the extent to which knowledge/awareness influences access to credit, table 4.5.3 shows that, knowledge influenced access to credit to a small extent ( $M = 1.85$ ,  $SD = 1.178$ ), meanwhile the need to access influences access to credit to a small extent ( $M = 1.99$ ,  $SD = 1.318$ ), also aware of the importance influenced access to credit to a small extent ( $M = 2.29$ ,  $SD = 1.321$ ), adding to that, aware of the chances influenced the access to credit to a small extent ( $M = 2.09$ ,  $SD = 1.355$ ), and also aware of the benefits influenced access to credit to a small extent ( $M = 2.29$ ,  $SD = 1.394$ ) and lastly aware of the offers influenced access to credit to a small extent ( $M = 1.98$ ,  $SD = 1.245$ ). Thus in a nutshell, knowledge/awareness influence access to credit in to a small extent ( $AV$ ,  $M=2.08$ ,  $SD=1.29$ ).

**Table 4.5.4 Performance of smallholder farmers**

| N <sup>o</sup> |                                                                   | Mean        | St. Deviation |
|----------------|-------------------------------------------------------------------|-------------|---------------|
| 1              | Access to credit enables an increase in productivity              | 3.73        | 1.571         |
| 2              | Also Access to credit increased annual return                     | 3.61        | 1.287         |
| 3              | Access to credit will improve technology                          | 3.86        | 1.185         |
| 4              | Access to credit also increases the skilled of labor              | 3.67        | 1,156         |
| 5              | Access to credit will increase farm size                          | 3.30        | 1.288         |
| 6              | Mori credit will also enables the use of fertilizer and chemicals | 3.42        | 1.306         |
|                | <b>Average</b>                                                    | <b>3.63</b> | <b>1.16</b>   |

Source: Primary Data from field survey (2017)

The findings of table 4.5.4 reveals that, access to credit will lead to increase in productivity to a great extent ( $M = 3.73$ ,  $SD = 1.571$ ), whereas, access to credit will lead to an increase in annual

299 return to a great extent (M= 3.61, SD= 1.287), access to credit will improve technology to a great  
 300 extent (M = 3.86, SD = 1.185), also access to credit will influence an increase in the use of skilled  
 301 labor to a great extent (M = 3.67, SD = 1.156), adding to that, access to credit will influence an  
 302 increase in farm size to a moderate extent (M = 3.30, SD = 1.288), and finally, access to credit  
 303 will influence an increase in the use of inputs to a moderate extent (M = 3.42, SD = 1.306).

304

305 Regression result of the factors that influence access to credit on the performance of small holder  
 306 farmers

307 **Table 4.2 Regression result**

| Model                                | Unstandardized Coefficients |            | Standardized Coefficients | T      | Sig. |
|--------------------------------------|-----------------------------|------------|---------------------------|--------|------|
|                                      | B                           | Std. Error | Beta                      |        |      |
| (Constant)                           | 2.417                       | 1.365      |                           | 1.771  | .087 |
| The influence of collaterals         | -0.768                      | -0.162     | .134                      | -4.74  | .002 |
| The influence of cost                | -0.768                      | -0.162     | 0.234                     | -4.740 | .000 |
| The influence of Knowledge/awareness | 8.908                       | 0.511      | 0.146                     | 17.437 | .000 |

308 a. Dependent Variable: Performance of smallholder farmers

309 Source: Primary Data

310

311  $R^2=0.84$

312  $Adj.R^2=0.80$

313  $F\text{-statistics}=21.19$

314 The result in Table 4.6 revealed the  $R^2$  value, the coefficient of multiple determinants of 0.84, this  
 315 implies that about 84 per cent of variation in the performance of small holders' farmers is caused  
 316 by changes in the factors influencing the access to credit. This implies that the remaining 16 per  
 317 cent changes in performance of small holders farmers is caused by variation in other variables

**Comment [OO18]:** These should be included in the table and not separated.

not included in this equation and represented by the error term. The F-statistics of 21.19 which is greater than the critical F-value of 0.157 needed for significance at 0.05 level of significance implies that there exists significant relationship between the determinants of access to credit and performance of small holder's farmers in Kumba municipality.

The estimated coefficient for the influence of collaterals securities, and influence of cost are negative. This result implied that there exist an inverse relationship between these variables and the performance of small holder farmers. In other words an increase in any of these variables will lead to a decrease in the performance of small holder farmers. These result are in order with economic a priori criteria. The result is significant at 5 per cent level of significance.

The estimated coefficient for the influence of knowledge/awareness is positive. This mean that there exist a direct relationship between these variables and the performance of small holder farmers. These results are in line with economic theories. The result are significant at 5 percent level of significance.

331

## 4.2 Discussions

The main objective of this study was to investigate the impact of the determinants of access to credit on the performance of smallholder farmers in the Kumba municipaplity. In order to achieve this, data was collected from 272 smallholder farmers in the Kumba municipality. It was found that given the sample, 38.08 percent of smallholder farmers finance their farming activities using internal funds, 18.08 percent borrowed from friends/ relatives and 6.62 percent secured bank loans/credit. These findings are consistent with similar discoveries made by InfoDev (2012) who reported that 48 percent of the investment structure of agriculture in Tanzania is derived from internally available funds, 14 percent from family/ relatives and 4 percent from bank.

More specifically, the study revealed that the influence of collaterals such as high collaterals, limited collaterals, group guarantee, and huge collateral requirement have a great influence in accessing credit. These findings are in line with those of Matavire et al (2013) who carried out a study on challenges facing SMEs in accessing finance from financial institutions, found out that SMEs fail to secure loans because of restrictive requirements, top among them being collateral security. According to objective one, it was hypothesized that there is no significant relationship between collateral security and the performance of smallholder. But since the

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348 calculated t-value of 4.74 was greater than the critical t-value of 1.96, as indicated on table 4.6,  
349 the null hypothesis was rejected. It therefore means that there exist a significant relationship  
350 between collateral security and performance of smallholder farmers. |

**Comment [OO21]:**

351 |  
352 Furthermore, in objective two, the study revealed that the influence of cost of credit such as high  
353 interest rate, taxes, legal fee, insurance and travelling expense, have a great influence on access to  
354 credit. This study is in line with Mwangi and Bwisa, (2013), where they found out that most of  
355 youth entrepreneurs faced challenges in accessing credit due high cost of credit. It was  
356 hypothesized that there is no significant impact of cost of credit as a determinant of access to  
357 credit on the performance of smallholder farmers in Kumba municipality. But since the calculated  
358 t-value of 4.740 was greater than the critical t-value of 1.96, as shown in table 4.6, the null  
359 hypothesis was rejected. Consequently, there exist a significant relationship between cost of credit  
360 and performance of smallholder farmers in Kumba.

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361  
362 Finally for objective three the study revealed that another mild factor that influence the access to  
363 credit was knowledge/awareness of financial procedures. According to this study, knowledge and  
364 awareness will influence credit access to a moderate extent. This is in line with (Claessens, 2002;  
365 Claessens, 2006 and Beck and Demirg,Á-Kunt, 2008). Lastly the study showed that the  
366 performance of smallholder farmers is influenced by the factors to a greater extent. This reflects  
367 the study of Byaruhanga (2013), who conducted a study to examine the empirical relationship  
368 between credit accessibility and agricultural performance, this was to show whether agricultural  
369 performance was affected by credit accessibility and also see if the is a relationship between the  
370 two. Therefore, collateral security and cost of credit as a determinant to access to credit have an  
371 inverse relationship with performance of smallholder farmers. On the other hand,  
372 knowledge/awareness of financial procedures by the farmers have a direct relationship with the  
373 performance of smallholder farmers. This is demonstrated by the hypothesis which showed that  
374 there exist a significant relationship between knowledge/awareness of financial procedures and  
375 the performance of smallholder farmers, even though to a limited extent.

**Comment [OO23]:** From this study, there is no place where hypotheses were mentioned in this study. Where iis this hypothesis mentioned in this manuscript?

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## 377 5.0 Conclusion

378 The study had as aim to investigate the impact of the determinants of access to credit on the  
 379 performance of smallholder farmers in the Kumba municipality. Using a sample of 272  
 380 smallholder farmers, the study concluded that the determinants (cost of credit facilities, collateral  
 381 security, knowledge/awareness of financial procedures by farmers and demographic factors such  
 382 as age gender, level of education and farm sizes) influence access to credit by smallholder  
 383 farmers. Cost of credit facilities and collateral securities influenced access to credit to a high  
 384 extent whereas, knowledge/awareness of financial procedures influenced access to a lower extent.  
 385 This affects the performance of the farmers and have implications for development.

386 Consequently, for Cameroon to develop considering that agriculture is the backbone of the  
 387 economy, financial institutions need to channel their resources to smallholder farmers who  
 388 account for more than 80 percent of the population in the agriculture sector. Availability of bank  
 389 credit to smallholder farmers will enhance their efficiency and boost their performance through  
 390 acquiring new technological tools, knowledge and skills regarding modern farming system.  
 391 Therefore, it was found that despite the fact that smallholder farmers are the major producers in  
 392 the agricultural sector, a sector that acts as an effective instrument in offering employment,  
 393 alleviating poverty and enhancing food security, they have very limited access to credit from  
 394 banks which are also the major suppliers of finance in the economy.

## 395 6.0 Recommendations

396 Based on the findings of this study, the following recommendations were made:

- 397 1. Joint liability borrowings should be encouraged to the farmers. In other to facilitate credit  
 398 access, smallholder farmers should form groups or cooperation's because financial  
 399 institution will prefer lending credit to groups than individuals. Thus it is recommended  
 400 that smallholder farmers should join unions or create groups to lessen the burden of  
 401 repayment. Also, pulling their resources together will help them acquire more innovative  
 402 ways of farming and marketing their produce/products.
- 403 2. Also, the farmers are recommended to partner with other cooperatives for information and  
 404 resource sharing. The farmers that cultivate maize for instance should get a measure per  
 405 bag of maize and exchange it for fertilizer from farmers involved in poultry farming. This

will permit the maize farmers use the fertilizers on their farms while the farmers dealing with birds can locally transform the maize to feed.

3. Also most of the farmers who own land do not have land titles. The study recommends that they should acquire land titles for their lands which they could use as collateral security to secure loans. This to an extent will address the challenge of access to credit
4. Financial institutions should overcome distance barrier and provide financial literacy to smallholder farmers. This is an important aspect that needs to be tackled by the financial institutions themselves. It is recommended that banks should extend and increase branches or agencies (reduce cost of transportation) in rural areas and conduct a number of colloquium that will enhance farmers' financial literacy as smallholder farmers are their potential profitable customers.
5. It is recommended that banks should develop special financial products such as loans that cater for the needs of smallholder farmers which will increase the amount of credit rendered to them and equally reduce the burden of repayments.
6. The Government of Cameroon through the microfinance institutions should develop an effective social network that links financial institution and the farmers. The India model can be adapted or adopted in Cameroon. It has been tested in India and has been proven to be a very effective mechanism to finance the rural poor. This will limit transaction cost of the financial institutions and will extend their outreach to the rural communities.
7. Finally, the government should also facilitate the issuance of Certificate of Occupancy. This is one of the documents required in the process of credit lending. Most smallholder farmers have real estate to use to secure loans but they don't have the certificate for those real estates. Thus if the government facilitates the issuing of these certificates, it will be easy for smallholder farmers to overcome the problem of collaterals.

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