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## **Determinants of Access to Credit and Performance of Smallholder Farmers in Kumba Municipality, South West Region of Cameroon**

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### **Authors' contributions**

*This work was carried out in collaboration between all authors. All authors read and approved the final manuscript.*

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### **ABSTRACT**

Like any other developing country in the world agriculture is the main economic activity of Cameroon. This sector is mainly dominated by smallholder farmers. Unfortunately, accessibility to finance is among the major drawbacks, which have implications to productivity hence income of smallholder farmers. This study was aimed at investigating the determinants of access to credit on the performance of smallholder farmers in the Kumba municipality. Specifically, the study sought to examine (1) collateral security, (2) cost of credit facility and (3) knowledge/awareness of financial procedures on the performance of smallholder farmers. The study adopted a descriptive survey research design. Using a multi-stage sampling procedure, 272 questionnaires were administered to smallholder farmers in the Kumba municipality. The data was analysed descriptively with the use of frequency tables and inferentially, using the multiple regression analysis. The findings revealed that collateral security, cost of credit facilities and knowledge/awareness of financial procedures have a

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significant impact on the performance of smallholder farmers as indicated by the t-values of 4.74, 4.73 and 17.43 respectively. An F-statistics of 21.19, greater than the critical F-value of 3.157 was obtained, implying that there exists a significant relationship between the determinants of access to credit (collateral security, cost of capital and knowledge and awareness of financial procedures) and performance of small holder farmers in the 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 particularly in Kumba municipality and Cameroon as a whole.

**Keywords:** *Smallholder farmers; formal credit; performance; collateral security; cost of capital.*

## 1. INTRODUCTION

Agriculture continues to be a vital tool for sustainable development and poverty reduction in Cameroon; yet, financial constraints in the sector remain pervasive. Here, farming remains costly and financial inequality severely limits smallholder farmers' ability to compete [1,2,3]. Consequently, the crop cultivation sector in Cameroon is mainly characterised by rudimentary tools, small farm sizes, low capital input, limited control of plant pests and diseases, and low yields [4].

The availability of credit is an essential component of rural development and this helps to achieve rapid and sustainable growth of agriculture [5]. To boost agricultural production and productivity, farmers have to use improved agricultural technologies [5]. However, the adoption of modern technologies is relatively expensive, and smallholder farmers cannot afford to self-finance. As a result, the mainstreaming of sustainable agricultural practices is low. It is argued that enhanced provision of rural credit would accelerate adoption of sound technologies which will go a long way to improve agricultural production and productivity [6].

Kumba the capital of Meme division is one of the main contributor to the agricultural output of the South West Region over the years. Just like other areas of the region, the majority of agricultural activities in Kumba are carried out by smallholder farmers. These farmers generally cultivate on small pieces of land using rudimentary tools. World funds to carry out timely purchases of cash inputs such as fertilizer, quality seeds, herbicides and pesticides as well as to buy capital equipment like hoes, cutlasses and water pumps have long been regarded as

one of the critical constraints hindering increased food production in smallholder agriculture [7,8].

Most of these Smallholder farmers finance their agricultural activities through equity funds from their on-farm and off-farm activities [9,10]. Due to the subsistence type of agriculture practiced by the smallholder farmers, their on-farm and off-farm activities are usually of small-scale and often yield little income. As such, they are not able to invest in improved production technologies that will increase food production. George Njeck, a cocoa farmer in the Mbonge Subdivision in the South West Region interviewed by the Post Newspaper, Business News of Thursday, 4 September 2014, revealed that they need money more than the Cameroon Government in order to improve their productivity.

Many of these farmers cannot farm on a large scale because they mostly use family labour for farming, so if the family size is small, farming on a large piece of land would be very difficult [8]. The only other possibility would be to get paid labour for a larger farm which entails money to pay this extra labour. Banks and microfinance institutions always ask for collateral security before giving out loans, and these farmers have only their farmlands as collateral.

The principal problem is that most of these farmlands have no land title, which makes them invalid to be used as collateral security making it difficult for them to have a loan [11]. Also, the cost of accessing these institutions is perceived high by the farmers. Worse still, some of the farmers do not have information and knowledge of the available financial services for them, their importance and their accessibility modalities. This has limited their access to formal credit. The inability for these farmers to access credits have severe implications for the development of the

economy of the SWR in particular and Cameroon in general.

For Cameroon to be able to attain the Vision 2035 and to meet its developmental targets, the small-scale farming sector should be given due attention. Many efforts have been made by the government of Cameroon to make funds available to farmers to increase agricultural output in Cameroon. Despite these efforts, one important problem remains, smallholder farmers' access to these funds [7,8]. The study sought to investigate the determinants of access to credit by smallholder farmers and to ascertain its relationship with the performance of the farmers, using Kumba as a case study. Specifically, the study sought: to examine the relationship between collateral security, cost of credit facility and knowledge/awareness of financial procedures as a determinant of access to credit and the performance of smallholder farmers in the Kumba municipality.

## 1.1 Hypothesis of the Study

### 1.1.1 Main hypothesis

The determinants of access to credit have no significant impact on the performance of smallholder farmers in the Kumba Municipality.

### 1.1.2 Specific hypothesis

1. Collateral security as a determinant of access to credit has no significant impact on the performance of smallholder farmers in the Kumba municipality.
2. Cost of credit as a determinant of access to credit has no bearing on the performance of smallholder farmers in Kumba municipality.
3. Knowledge/awareness of financial procedures as a determinant of access to credit has no significant impact on the performance of smallholder farmers in the Kumba municipality.

## 2. LITERATURE REVIEW

Historical development and the associated culture of the banking system, underpin the problem of limited emphasis on the provision of collateral as a primary condition in lending [12]. Banks have always adopted an adverse risk stance towards small firms, with an accompanying inability to focus on the income generating potential of the venture, when

analyzing the likelihood of loan repayment [13]. Credit constraints can occur when banks increase collaterals for loans. As a result, banks charge low-interest rates for less risky businesses (big farmers) and high-interest rate for risky businesses (Smallholder farmers) [14]. In a study to examine the empirical relationship between credit terms, credit accessibility and the performance of agricultural cooperatives in Rwanda by [15] revealed that there is an inverse relationship between credit terms, accessibility and the performance of agricultural cooperatives.

Lack of access to credit facilities is almost universally indicated as a key problem for small and micro enterprises. In most cases, even where credit is available mainly through banks, the entrepreneurs may lack freedom of choice because the banks' lending conditions may force the purchase of heavy, immovable equipment that can serve as collateral for the financial institution. Credit constraints operate in a variety of ways in Cameroon where undeveloped capital market forces farmers to rely on self-financing or borrowing from friends and relatives. Lack of access to long-term credit for micro, small and medium smallholder farmers forces them to rely on high-cost short term finance [16].

Hallberg [17] singled out high risks associated with lending to smallholder farmers and fixed costs associated with getting sound information about the borrower by financial institutions as the principal driving forces to the high cost of credit. High transaction costs do therefore not only increase the cost of borrowing but can also restrict access to external finance for some borrower groups. While transaction costs are restraining for all borrowers, there are arguments that they are even more constraining for small and micro enterprises.

According to [18], high transactions cost of borrowing emanating from these two sources discourage small farmers, artisans, entrepreneurs from availing themselves of formal credit. Here the market fails from the demand side. Lack of information, inadequate credit supply, high-interest rates and defaulting are also major factors hindering smallholder farmers' access to credit [19]. It has been estimated that only five percent of the farmers in Africa and about fifteen percent in Asia and Latin America have had access to formal credit; and on an average, across developing countries, five percent of the borrowers have received eighty percent of the credit [20]. Access to affordable

agricultural credit enables farmers, who constitute the majority of the population in most developing countries, to adopt new technology and take advantage of new economic opportunities to increase production and income [21].

To more effectively facilitate smallholder farmer's access to microcredit, there is need to better understand and identify the major factors that affect smallholder farmers' accessibility to microcredit and the influence of accessing credit on smallholder farmers' performance [22].

Even though they have been a plethora of research carried out in the thematic area, a lot of emphasis has been laid on ascertaining the contribution of micro-credits alleviating poverty [7,23], agricultural productivity [24,3], agricultural variability challenges and agricultural productivity [25,26], agricultural extension services and wellbeing [9,27]. Works on the determinants of access to microcredits mostly looked at collateral security and in line with the performance of small and medium-sized enterprises. This study intends to fill the gap by assessing the impact of the determinants to access of credits on the performance of smallholder farmers. The study did not limit the variables to collateral and demographic factors as most studies did, but, expanded it to include knowledge/awareness and cost of credit facilities.

Unlike [13] who made use of the probit model, this study adopted the linear regression analysis to ascertain the impact of the determinants of access to credit on the performance of smallholder farmers in Kumba municipality SWR of Cameroon. More effectively to 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 [22].

### 3. MATERIALS AND METHODS

#### 3.1 Study Area

Kumba also known as K Town is a city in the Southwest Region of Cameroon. It has estimated population of about 400.000 inhabitants. ¾ of this population are within the youthful age bracket. Kumba is the political headquarter and the economic capital of the Meme Division. It is located at latitude 3°, 4'N of the equator and longitude 9°, 10' east of the Greenwich Meridian with a total surface area of about 800km<sup>2</sup>

(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). It acts as a redistribution center for many divisions of the Southwest Region, and it is a transit zone to Nigeria through Mundemba and main creek zones of the Region.

#### 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.

#### 3.3 Population and Target Population

The total population of Kumba is about 400.000 inhabitants 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 1.

Table 1. Targeted population

Cocoa	472	151.75
Cassava	166	53.37
Cocoyam's	87	27.97
Maize	77	24.75
Plantains	34	10.93
Yams	10	3.21
Total	846	272

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

#### 3.4 Sampling Technique and Sample Size

The researcher used a multi-staged sampling procedure. The first stage, the farmers were grouped according to their activities (cocoa, cassava, cocoyam, plantains, and yams) as seen in Table 1. In stage two, a proportionate sampling procedure was used to determine the number of farmers to be selected from each of the group based on the sample size. Finally, in stage three, the farmers were randomly selected with the use of the balloting system to make up the determined proportion of each category.

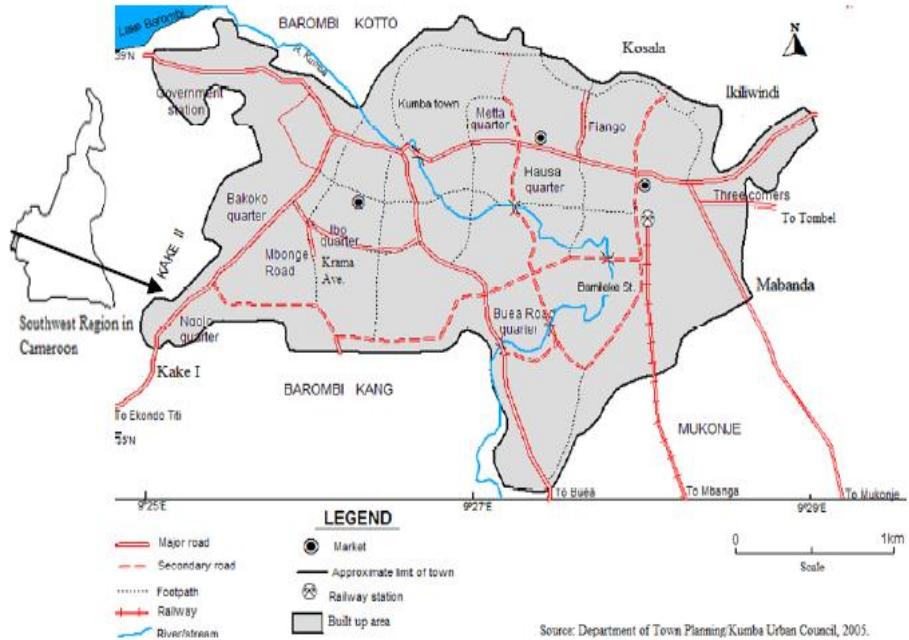


Figure 1. The map of Kumba (Department of Town Planning/KUC, 2005).

## 4. FINDINGS AND DISCUSSION

### 4.1 Demographic Information of Respondents

The first part of the presentation of findings was done by cross-tabulations to ascertain whether some demographic factors (gender, age, and level of education) influence the access to credit in the Kumba municipality.

**Table 2. Access to formal credit by smallholder farmers in the Kumba Municipality**

	Frequency	Percent	Cumulative percent
Yes	75	27.6	27.6
No	197	72.4	100
Total	272	100.0	

Source: Field survey, 2017

Table 2 shows that majority of the respondents, that is 72.4% do not have access to credit and only 27.6% of the respondents have access to credit in the Kumba municipality.

Fig. 2 reveal that more than half of smallholder farmers (61.54%), finance their farming activities using internal sources. On the other hand, only 4.62% smallholder farmers of the total sample

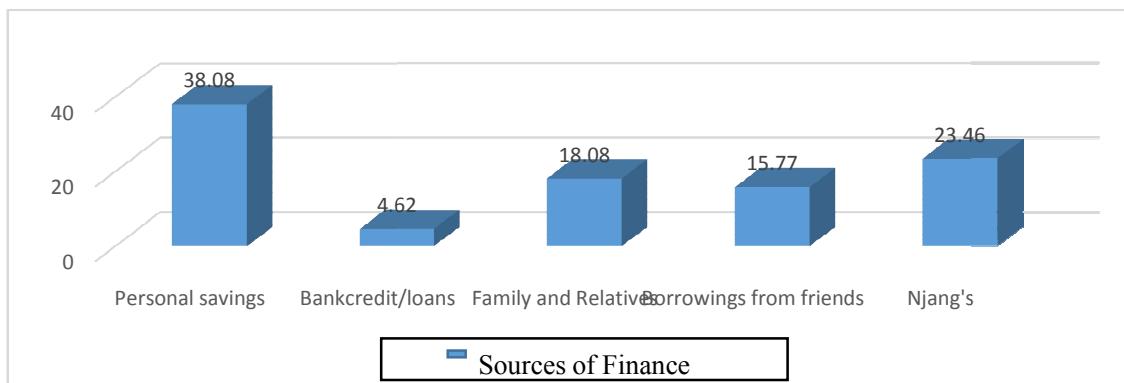
finance their farming activities using bank credit. Bank credit is the least source of capital used by farmers.

The findings in Table 3 reveal that more female (102) do not have access to credit, as compared to males (95). While of the 272 respondents, only 75 of them have access to credit, 48 females, and 27 males.

The findings on Table 4. indicates that 79.6% (78/98) of the farmers who have no formal education do not have access to credit as opposed to 68.4% among the farmers who have formal education. There was a relatively high percentage of farmers who do not have access to credit among those (farmers) who have no formal education when compared to those who have formal education. This suggest that formal education influences positively farmers' access to credit.

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

Table 5 would be used to explain the extent to which factors influence the access to credit. The scale used 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. This scale of measurement is adopted from [28].

**Fig. 2. Sources of capital**

Source: Field survey, 2017

**Table 3. Access to credit \* Gender of smallholder farmers Cross tabulation**

	Gender of smallholder farmers		Total
	Male	Female	
Access to credit	Yes	27	48
	No	95	102
Total		122	150

Source: Field survey 2017

**Table 4. Access to credit \* Level of Education Cross tabulation**

	Level of education				Total
	No formal education	Primary education	Secondary education	Tertiary education	
Access to credit	Yes	20	45	10	0
	No	78	80	35	4
Total		98	125	45	4

Source: Field survey 2017

**Table 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

The findings in Table 6 shows that, high collaterals are demanded which influenced access to credit to a great extent ( $M = 3.61$ ,  $SD = 1.304$ ). Given that smallholder farmers don't have enough assets their access to credit is affected to a great extent ( $M = 3.85$ ,  $SD = 1.214$ ). Given that MFIs give free loans their access to credit is influenced to a great extent ( $M = 3.63$ ,  $SD = 1.149$ ). In the same light, ascertaining that group guarantee is allowed by MFIs their access to credit is affected to a moderate extent ( $M = 3.50$ ,  $SD = 1.377$ ). Finally, the inability to make

available collateral securities which is needed to secure loans influences the access to finance to a great extent ( $M = 3.61$ ,  $SD = 1.362$ ). 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.

On the extent to which cost influences the access to credit, Table 7 shows that, high interest rate are charged on loans which influenced access to credit to a great extent ( $M = 3.77$ ,  $SD = 1.288$ ). Given that taxes, loan and proceeding charges are high their access to credit is affected to a great extent ( $M = 3.93$ ,  $SD = 1.214$ ). Also, the inability to negotiate interest rate affects their access to credit to a great extent ( $M = 3.75$ ,  $SD = 1.368$ ). Given that the repayment period of loans are not often met their access to credit is affected to a great extent ( $M =$

3.77, SD = 1.381). The high fluctuation of interest rates influenced the access to finance to a great extent (M = 3.97, SD = 1.265). Finally, the cost involved in lending procedures are high increasing the cost of credit which affected access to credit to a great extent (AV, M= 3.83, SD=1.34). Thus proving that high-interest rate, taxes, legal fee and insurance are the cost factors that influence the access to credit.

In regards to the extent to which knowledge/awareness influences access to credit, Table 8 reveals that, smallholder farmers lack the knowledge the access finance which influenced access to credit to a small extent (M= 1.85, SD = 1.178). Given that they do not see the need to access credit their access to credit is affected to a small extent (M = 1.99, SD = 1.318). Also, the awareness the farmers of the procedure to access credit facilities has influenced the access to credit to a small extent (M = 2.29, SD = 1.321). Furthermore, the awareness of the opportunities available when farmers have access to credit influenced the access to credit to a small extent (M = 2.09, SD = 1.355). Lastly, farmers do not have the ability to compile financial records which affected access to credit to a small extent (M = 1.98, SD = 1.245).

Thus, in a nutshell, knowledge/awareness influence access to credit to a small extent (AV, M=2.08, SD=1.29).

The findings of Table 9 revels that, access to credit will lead to increase in productivity (M= 3.73, SD = 1.571), increase in annual return (M= 3.61, SD= 1.287), improve technology (M = 3.86, SD = 1.185), and increase in the use of skilled labor (M = 3.67, SD = 1.156) to a great extent. While access to credit will lead to increase in farm size (M = 3.30, SD = 1.288), and increase in the use of inputs (M = 3.42, SD = 1.306) to a moderate extent.

Regression result of the factors that influence access to credit on the performance of smallholder farmers.

The result in Table 10 reveal that the value of the adjusted  $R^2$  is 0.80. This shows that the regression line captures more than 80 percent of the total variation in performance of Smallholder farmers explained by variation in the explanatory variables specified in the equation with less than 20 percent accounting for the error term. Thus, the model is 80 percent of goodness fit.

**Table 6. Influence of collaterals securities**

Nº		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
Average		3.68	1.26

Source: Primary Data from field survey, (2017)

**Table 7. The influence of cost of capital**

Nº		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
Average		3.83	1.34

Source: Primary Data from field survey (2017)

**Table 8. Influence of knowledge/awareness**

N <sup>0</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	1.99	1.318
3	Smallholder famers are aware how to go about securing credit facilities	2.29	1.321
4	They are aware of the opportunities they 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
	Average	2.08	1.29

Source: Primary Data from field survey (2017)

**Table 9. Performance of smallholder farmers**

N <sup>0</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	Access to credit will also enables the use of fertilizer and chemicals	3.42	1.306
	Average	3.63	1.16

Source: Primary Data from field survey (2017)

**Table 10. Regression result**

Model	Unstandardized coefficients		Standardized coefficients	T	Sig.
	B	Std. Error			
1 (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

 $R^2=0.84$  $Adj.R^2=0.80$ 

F-statistics=21.19

a. Dependent Variable: Performance of smallholder farmers \*significant at 5%

The F-statistics of 21.19 which is greater than the critical F-value of 3.157 needed for significance at 0.05 level of significance implies that there exists a significant relationship between the determinants of access to credit and performance of small holder's farmers in Kumba municipality.

The estimated coefficients for the influence of collaterals securities and influence of cost of credit facility are negative. This result implies that there exists an inverse relationship between these variables and the performance of

smallholder farmers. In other words, an increase in any of these variables will be associated with a decrease in the performance of smallholder farmers in the Kumba municipality. These results are in order with economic a priori criteria. The result is significant at 5 percent level of significance.

The estimated coefficient for the influence of knowledge/awareness of financial procedures is positive. This means that there exists a positive relationship between knowledge/awareness and the performance of

smallholder farmers in the Kumba municipality. These results are in line with economic theories. The result is significant at 5 percent level of significance.

## 5. DISCUSSION

The main objective of this study was to investigate the impact of the determinants of accessing credit based on the performance of smallholder farmers in the Kumba municipality. To achieve this, data was collected from 272 smallholder farmers in the Kumba municipality. It was found that given the sample, more than half of the smallholder farmers (61.54%), finance their farming activities using internal sources. On the other hand, only 4.62% smallholder farmers of the total sample finance their farming activities using bank credit. These findings are consistent with similar discoveries made by [29] 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 the bank.

More specifically, the study revealed that the influence of collaterals (limited collaterals, group guarantee, and huge collateral requirements) greatly affected access to credits by smallholder farmers. These findings are in line with those of [28] who carried out a study on challenges facing Small and Medium Enterprises (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. Most of the farmers who had a challenge accessing finance cannot afford collaterals to secure loans. The few farmers that have access to credit operate in groups and they groups pose as a guarantor for the farmers. According to objective one, it was hypothesized that there is no significant relationship between collateral security and the performance of smallholder farmers. The calculated t-value of 4.74 which is greater than the critical t-value of 1.96, as indicated in Table 10, reveals that there exists a significant relationship between collateral security and performance of smallholder farmers.

Furthermore, in objective two, the study revealed that the influence of cost of credit (high-interest rates, fluctuating taxes and high legal fees) have a great influence on access to credit by smallholder farmers. This study is in line with [30], where they found out that most of the youth entrepreneurs faced challenges in

accessing credit due to the high cost of credit. It was hypothesized that there is no significant impact of the cost of credit as a determinant of access to credit on the performance of smallholder farmers in Kumba municipality. The calculated t-value of 4.740 is greater than the critical t-value of 1.96, as shown in Table 10. This implies that there exist a significant relationship between the cost of credit and performance of smallholder farmers in Kumba.

Finally, for objective three the study revealed that another mild factor that influences the access to credit was knowledge/awareness of financial procedures. According to this study, knowledge and awareness will influence credit access to a moderate extent. Aforementioned is in line with [31,32]. Lastly, the study showed that the factors influence the performance of smallholder farmers to a greater extent. This reflects the study of [15], who conducted a study to examine the empirical relationship between credit accessibility and agricultural performance, this was to show whether the agricultural performance was affected by credit accessibility and also see if there is a relationship between the two. Therefore, collateral security and cost of credit as a determinant to access to credit have an inverse relationship with the performance of smallholder farmers in the Kumba municipality. On the other hand, knowledge/awareness of financial procedures by the farmers have a direct relationship with the performance of smallholder farmers. This is demonstrated by the hypothesis which showed that there exists a significant relationship between knowledge/awareness of financial procedures and the performance of smallholder farmers, even though to a limited extent.

## 6. CONCLUSION

The study aims to investigate the impact of the determinants of access to credit on the performance of smallholder farmers in the Kumba municipality. The study concluded that the determinants (cost of credit facilities, collateral security, knowledge/awareness of financial procedures by farmers and demographic factors such as age gender, level of education and farm sizes) influence access to credit by smallholder farmers. Cost of credit facilities and collateral securities influenced access to credit to a great extent whereas, knowledge/awareness of financial procedures influenced access to a lower extent. This affects

the performance of the farmers and has implications for development.

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

## 6. RECOMMENDATIONS

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

Joint liability borrowings should be encouraged to the farmers. In order to facilitate credit access, smallholder farmers should form groups or cooperation's because financial institution will prefer lending credit to groups than individuals. Thus it is recommended that smallholder farmers should join unions or create groups to lessen the burden of repayment. Also, pulling their resources together will help them acquire more innovative ways of farming and marketing their produce/products.

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 the cost of transportation) in rural areas and conduct some colloquium that will enhance farmers' financial literacy as smallholder farmers are their potentially profitable customers. Also, 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.

Finally, the Government of Cameroon through the microfinance institutions should develop an effective social network that links financial institutions 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.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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