



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

CHARACTERIZATION OF BANK LENDING REQUIREMENTS FOR FARMERS IN ZIMBABWE

Chigunhah Blessing^a † Graduate Business School, Chinhoyi University of Technology, Zimbabwe
Ropafadzo^a †, Department of Crop Science and Post-Harvest Technology, Chinhoyi University of Technology, Zimbabwe
Svotwa Ezekia^b, Department of Accounting Science and Finance, Chinhoyi University of Technology, Zimbabwe
Munyoro Gerald^a, Faculty of Agriculture and Environmental Sciences, Bindura University of Science Education, Zimbabwe
Mabvure Tendai Joseph^c
Govere Ignatius^d † ✉ blessingmhere@gmail.com (Corresponding author)



Corresponding author

ARTICLE HISTORY:

Received: 10-Mar-2020

Accepted: 25-Jun-2020

Online Available: 01-Sep-2020

Keywords:

Bank credit,
Bank lending,
Campari,
Collateral,
Investments

ABSTRACT

Bank credit availability is vital for enhancing farm productivity, income, and farmer livelihoods. This study sought to characterize the lending requirements considered by commercial banks when lending to farmers in Zimbabwe. Primary data were collected from a cross-section of 12 registered commercial banks. Relative Importance Index (RII) and Thematic analysis analysed data. High importance lending requirements that were always considered by all commercial banks when lending to farmers included credit history, productive farm assets, business registration, loan purpose, amount, and repayment source. Agricultural production skills, age, business plans, financial statements, social reputation, and project insurance were also mandatory in the majority of the commercial banks. High to medium importance lending requirements included extension support, business management skills, bank account ownership, own contribution, and personal savings. Medium importance requirements included formal basic education, alternative income, and freehold land ownership. Therefore, besides the widely documented collateral, local commercial banks also considered several other requirements when lending to farmers. Government policy should go beyond solving the collateral issue but benchmark its policies to other bank lending requirements. Farmers should also pursue personal development programs in agricultural production, business, and financial management. They should also invest in off-farm assets to ensure collateral availability.

Contribution/ Originality

This study is one of the first few in Zimbabwe, which directly investigated specific lending requirements that commercial banks consider when lending to farmers. The study also uniquely validated the applicability of bank lending models in agricultural lending in Zimbabwe.

DOI: [10.18488/journal.ajard.2020.102.628.644](https://doi.org/10.18488/journal.ajard.2020.102.628.644)

ISSN(P): 2304-1455/ ISSN(E): 2224-4433

How to cite: Chigunhah Blessing Ropafadzo, Svotwa Ezekia, Munyoro Gerald, Mabvure Tendai Joseph and Govere Ignatius (2020). Characterization of bank lending requirements for farmers in Zimbabwe. Asian Journal of Agriculture and Rural Development, 10(2), 628-644.

© 2020 Asian Economic and Social Society. All rights reserved.



1. INTRODUCTION

Financial resources are the basic ingredients for economic growth, provided that they are not left idle (Sulaiman and Aluko, 2015). According to Ponnala (2016), banks are statutorily vested with the primary responsibility of the financial intermediation function to ensure the availability of funds to all economic agents. In executing this function, bank deposits are converted into loans or credits, which foster capital formation that enhances the economy's productive capacity (Afolabi, 1998). Omankhanlen (2012) avers that economic activity would not progress smoothly without the continuous flow of money and credit, particularly from the banking system. Short, medium, and long term loans advanced as institutional credit to agriculture are recognized as important determinants of private capital formation (Joliya *et al.*, 2017). The availability of bank credit in the agricultural sector is also purported to empower farmers to invest in technologies and inputs that are required for enhancing productivity, income and livelihoods, especially in developing countries like Zimbabwe (International Finance Corporation (IFC), 2014; Makamure *et al.*, 2001). Goeringer and Hanson (2013) also propound that bank credit availability is key for enabling the transition of smallholder farmers from subsistence to commercial agriculture.

However, lack of access to bank credit by farmers in developing countries is recurrently cited as a major bottleneck to increased productivity (Ike and Umuedafe, 2013; Reserve Bank of Zimbabwe (RBZ, 2016). According to the IFC (2014), only 5% of commercial lending is destined for the agricultural sector in Africa, while a quarter of loans advanced south of the Sahara originated from a bank (Fan *et al.*, 2013). These financial constraints are also prevalent in Zimbabwe, an agro-based economy which has approximately 60% of its economically active population self-employed in agriculture (Swinkels and Chipunza, 2018). Farmers lack access to formal bank credit in Zimbabwe due to their high dependence on rainfed agriculture, which exposes them to weather risks (United Nations, 2014; Vitoria *et al.*, 2012). They also lack the immovable and titled collateral demanded by banks since they do not have freehold ownership of their farmland (Masiyandima *et al.*, 2011; Ministry of Agriculture, 2013). Besides, the majority of the farmers in Zimbabwe, who benefitted from the Fast Track Land Reform Program (FTLRP) between 1999 and 2010, also lack the skills and passion for farming compared to their predecessors, the former white commercial farmers (Richardson, 2005).

The government of Zimbabwe formulated several policies in response to the financial constraints faced by farmers. Such policies include the Collateral Registry, the 99 Year Lease Agreements, and the ongoing Command Agriculture Program. According to the RBZ (2013), a Collateral Registry is a publicly available database of interests in or ownership of movable assets, which allows borrowers to prove their creditworthiness, and lenders to assess their ranking priority in potential claims against particular collateral. The main purpose of the Collateral Registry cited by the GoZ (2017) is to enable commerce, industry and other socio-economic activities by enabling individuals and businesses to utilize their movable property as collateral for credit. Movable assets that can be used as collateral include equipment, inventory, accounts receivable, farm products, household items, fixtures, and bank accounts, among others (GoZ, 2017). However, the registry is yet to be operationalized.

The government of Zimbabwe has also sought to improve tenure security for the land reform beneficiary farmers to allow them to use their landholdings as collateral for accessing finance (Rukuni, 2012). Consequently, 99 Year Lease agreements were drafted. However, the 99 Year Lease Agreement is still perceived as inadequate for banking purposes because it gave all the powers and rights to the state and a few to the farmer. The 99 Year Lease also segregated against smallholder farmers and is non-transferable to third parties (Bhatasara, 2011).

The government also introduced the Command Agriculture program in partnership with the private sector (Ministry of Finance and Economic Development, 2017). According to Echanove (2017), it

is a government-mediated contract farming arrangement in which international and domestic capitalists work in alliance with the local banks. In the 2018 Budget Statement, the [Ministry of Finance and Economic Development \(2017\)](#) revealed that the thrust behind Command Agriculture was on the full, efficient and sustainable utilization of allocated land for increased investment and production. As a result, more than US\$2 billion was directed towards the program through treasury bills ([Shonhe, 2018](#)). However, the main shortfall of the Command Agriculture program was that it also segregated against the small farmers who are in most need of support in Zimbabwe ([Echanove, 2017](#)).

Apart from the Command Agriculture program, the Collateral Registry and the 99 Year Lease Agreements were solely focused on solving the collateral problem among farmers in Zimbabwe. This observation raises concerns over the ability of farmers to access bank credit in the long run even if they manage to have their collateral deficiency problems addressed. In other words, the study argues that policy direction in Zimbabwe, which is concentrating on solving the collateral problem alone, is not enough to address the agricultural financing gap in Zimbabwe. According to [Owusu-Dankwa and Badu \(2013\)](#), banks screen loans through several lending requirements to analyse borrowers who are likely to default, to add an incentive for the borrower to repay the loan, to offset the cost to the lender of a loan default, and to reduce the lending risk.

Banks are usually guided by different lending models that provide a checklist of what they have to consider before granting a loan to a borrower. Such models include the 5C's of credit (Character, Capacity, Capital, Collateral and Conditions); the 5P's (Person, Payment, Principal, Purpose and Protection); the LAPP (Liquidity, Activity, Profitability and Potential); the CAMPARI (Character, Ability, Margin, Purpose, Amount, Repayment and Insurance) and Financial Analysis and Past Experiences (FAPE) ([Abbadi and Karsh, 2013](#)). Therefore, this study sought to comprehend the extent to which Zimbabwean commercial banks consider different lending requirements postulated by theoretical and empirical literature when lending to farmers.

2. MATERIALS AND METHODS

The study was conducted in Harare, Zimbabwe, in October 2019. Harare is the capital city of Zimbabwe, where most of the commercial banks' head offices are located. Hence, its selection as the study area. The study was guided by the pragmatism research philosophy and adopted both quantitative and qualitative methods in answering its objectives. Qualitative methods were used to support the study's quantitative findings. The study's population was comprised of 13 registered commercial banks in Zimbabwe ([RBZ, 2019](#)). However, only 12 commercial banks are currently operational in the country. Therefore, the study's sample was made up of all the 12 operational commercial banks in Zimbabwe. An interviewer-administered structured questionnaire was used to collect quantitative data from bank credit officers from the agribusiness units of the targeted commercial banks. The questionnaire included some open-ended sections where the respondents were allowed to elaborate on the importance of various lending requirements they considered when lending to farmers in Zimbabwe.

2.1. Quantitative data analysis

A 3-point Likert Scale was used to establish the extent to which commercial banks in Zimbabwe considered various lending conditions derived from the CAMPARI Model and other requirements stated by empirical literature as important requirements for lending. The CAMPARI Model postulates that banks consider several conditions related to borrower character, ability to run the business, the margin of finance, the purpose of the loan, the amount requested, repayment ability, and insurance before granting loans ([Rouse, 1989](#)). Some factors related to these CAMPARI lending requirements were selected for rating by the bank credit officers. The CAMPARI lending model was chosen in this study because it is confirmed as one of the common credit evaluation tools used by banks in practice ([Chepkoech, 2014](#); [Ntow-Gyamfi and Boateng, 2013](#); [Nyamutowa](#)

and Masunda, 2013; Owusu-Dankwa and Badu, 2013; Seyoum, 2017). Microsoft Excel was used to assign weights to the lending requirements using the Relative Importance Index (RII). The weighted RII scores were subsequently used to rank the lending requirements in order of importance. The following formula was used in determining the RII:

$$RII = \sum \frac{W}{A * N}$$

Where, w is the weight assigned by each respondent on a scale of 1 to 3, with 1 implying the least and three the highest. The responses were categorized into 'always considered (3)', 'sometimes considered (2)' and 'never considered (1)' responses. A is the highest weight, while N is the total number in the sample. Five important levels were transformed from the RII values: high (0.80 to 1) (H); high-medium (0.60 to 0.79) (H-M); medium (0.40 to 0.59) (M); medium-low (0.20 to 0.39) (M-L); and low (0 to 0.19) (L) (Rooshdi *et al.*, 2018). The RII was used by previous studies in the construction industry (Davoodi and Dagli, 2019; Rooshdi *et al.*, 2018; Somiah *et al.*, 2015). According to Davoodi and Dagli (2019), the RII is applicable in instances when the researcher is interested in extracting or determining major important factors from a population. Therefore, RII was chosen in this study because it allowed the identification of the most important lending requirements based on the commercial bank credit officers' responses. The RII is also regarded as a suitable tool to prioritize indicators rated on Likert Scales (Rooshdi *et al.*, 2018). Results were presented on a table.

The Cronbach's Alpha Coefficient was used to authenticate the questionnaire's reliability using SPSS. According to Hair *et al.* (2006), this scale measurement tool is used to determine the internal consistency factor within and among study variables. If a study attains a score that is above 0.70, it is deemed reliable. The questionnaire scored a Cronbach's Alpha Co-efficient of 0.72, which meant that it was reliable.

2.2. Qualitative data analysis

The bank credit officers' verbal responses were analysed by the NVivo software using thematic analysis. The results were mainly presented through word trees.

3. RESULTS AND DISCUSSION

Out of the targeted 12 commercial banks, eight took part in the study. Therefore, a 67% response rate was achieved.

3.1. High importance of lending requirements

All the eight commercial banks that participated in the study always considered credit history; business registration documents; irrigation facilities; a clear and supported loan purpose; and a clear and adequate repayment source in assessing agricultural loan applications by farmers in Zimbabwe (Table 2). These factors received the highest scores on the 3-point Likert Scale from all the commercial banks, and consequently attained the highest RII rank of 1.

Table 1: Ranking of lending requirements by commercial banks in Zimbabwe

LENDING REQUIREMENT	RELATIVE IMPORTANCE INDEX (RII)	IMPORTANCE LEVEL
Credit history	1	H
Business registration documents	1	H
Productive farm assets	1	H
Clear and supported loan purpose	1	H
Clear and adequate repayment source	1	H
Loan amount	1	H
Agricultural production experience, qualifications, and skills	0.96	H
Project insurance	0.96	H
Financial statements	0.92	H
Business plan	0.88	H
Guarantor	0.88	H
Social reputation	0.83	H
Economically active age	0.83	H
Agricultural extension support	0.79	H-M
Business management qualifications, skills, and experience	0.79	H-M
Bank account ownership	0.79	H-M
Own contribution to the loan amount requested	0.71	H-M
Personal savings with a bank	0.67	H-M
Formal basic education	0.54	M
Alternative Income	0.54	M
Freehold land ownership	0.54	M

Source: Primary Data (2019)

Key to Table 1

	High (H) importance (0.80 - 1)
	High-Medium (H-M) importance (0.60 - 0.79)
	Medium (M) importance (0.40 - 0.59)
	Medium-Low (M-L) importance (0.20 - 0.49)
	Low (L) Importance (0 - 0.19)

3.2. Credit history

A good and flawless history of honouring past loan obligations was a key requirement for advancing credit to farmers in all the commercial banks that participated in the study. The consideration of a farmer's credit history attained a perfect RII score of 1 (Table 2). Commercial Bank 4 (CB4) specified that looking into the potential borrower's credit history was part of its compulsory character checks. CB5 also stated that "We do not lend to anyone with an outstanding loan within or outside the bank". According to CB8, it made use of the Credit Registry and the Financial Clearing Bureau (FCB) platforms within the formal banking system to determine the farmers' credit history in terms of how they honoured their past loan obligations and to also ascertain their gearing levels in terms of current debt obligations. In support of these findings, [Gebremedhin \(2010\)](#) avers that a good and outstanding past loan repayment history is the first and probably the most important requirement for a successful loan. [Feschijan \(2008\)](#) also confirms that the process of establishing client reputation is long and revolves around the use of information relating to the payment of previous loans. [Ijioma and Osondu \(2015\)](#) discovered that if farmers repaid borrowed funds timeously without default, lenders would become willing to release more

loans to them. It also validates the applicability of the character component of the CAMPARI lending model in Zimbabwean commercial banks.

3.3. Business registration documents

Business registration documents as a lending requirement received another highest RII score of 1, after attaining perfect scores from all the commercial banks that participated in the study (Table 1). According to all the bank credit officers, business registration documents portrayed the legitimacy of the agricultural business entity, and also positively contributed to the character profile of the farmer. CB1 expounded that the verification of a farmers' business registration documents like the current tax clearance certificates enabled the bank to enforce tax compliance issues within the agricultural sector. On the other hand, CB4 reiterated in its interview that this lending requirement was an essential part of the Know Your Customer (KYC) standards that are key in bank lending. The bank credit officer from CB5 specifically said, "An agricultural enterprise must be a registered company with a company account because we strictly offer corporate lending...Tax clearance is a condition for loan access". CB8 also indicated that it only financed registered companies that could produce documents like the CR6, CR14, and tax clearance along with its credit application. In the case of South Africa, [Mayowa \(2015\)](#) concluded that a registered business was one of the key requirements set by the Land Bank in its lending programs to smallholder farmers and that credit access increased with the smallholder farmers registering their farms. These findings also validate further the applicability of the CAMPARI model in local commercial banks.

3.4. Productive farm assets

All the commercial banks always considered the presence of productive farm assets in their credit evaluation processes because productive farm assets enhance the production capacity, income and loan repayment ability of the farmer. The requirement also scored the highest RII score of 1 (Table 1). All the banks specifically emphasized the need for irrigation facilities on the farm. CB1's bank credit officer underlined that the bank no longer financed dryland farming and that irrigation was mandatory for a farmer who wished to receive an agricultural production bank loan (Figure 1). Similarly, CB5's bank credit officer declared that they did not finance dryland farming and that this had been adopted as a bank policy (Figure 1). CB8 also revealed that its key condition for advancing a loan to an agricultural enterprise was that 70% of its crop had to be under irrigation. However, CB1 stressed that it was selective on the type of physical assets that a farmer had because most farms owned movables that were not valuable and did not provide recoverability. CB1 went on to declare that the only movable asset that stored value on a farm was the center pivot (irrigation equipment), which had a 25-30-year lifespan.

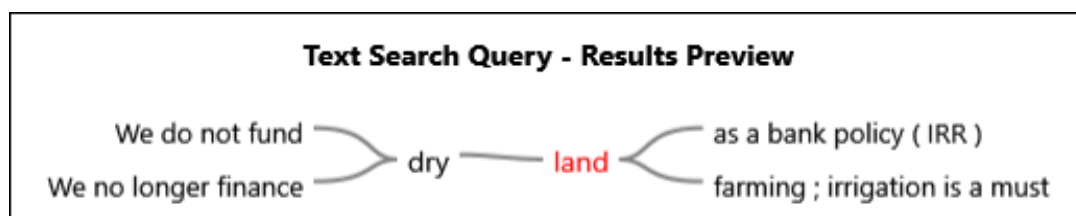


Figure 1: Word tree output for the word "irrigation"

Source: Primary data, 2019

These findings confirm claims that Zimbabwean banks are now reluctant to fund local farmers due to the recurring El-Nino induced droughts in the country and their high dependence on rainfed agriculture, which all negatively affect their production, income and loan repayment ability ([United Nations, 2014](#); [Vitoria et al., 2012](#)). Similarly, [Samuel et al. \(2015\)](#) discovered that lenders perceived farmers with irrigation facilities as capable of timeously repaying their loans because they had less risk of loss from rainfall fluctuations in Dharwad District of Karnataka in India.

Credit access in the Land Bank of South Africa was also discovered to be higher among farmers who had irrigation sources in their farms (Mayowa, 2015).

Several studies from different countries have also demonstrated that farm assets enhance access to bank credit for farmers by fulfilling the collateral requirements by banks. Moreover, the requirement for farm assets by banks was centered on the fact that they enhanced productive farm capacity. Such studies that established higher credit access among farmers who had the required productive assets by banks include Mayowa (2015) (South Africa) and Njogu *et al.* (2018) (Kenya). However, Wulandari *et al.* (2017) discovered that collateral assets owned by farmers were a less important requirement to obtain finance in Indonesia. These findings have shown the banks' emphasis on farm viability to ensure enhanced ability to repay loans, and also the collateral role that farm assets can play. It validates the application of the Ability, Repayment and Insurance requirements of the CAMPARI lending model in local banks.

3.5. Clear and supported loan purpose

A clear and supported loan purpose was also mandatory in all commercial banks under study. The requirement also attained a perfect RII score of 1 (Table 1). According to all the bank credit officers, local farmers were compelled to disclose loan purposes that were legally acceptable in Zimbabwe. Abbadi and Karsh (2013) confirm that a potential borrower is obligated to define the purpose of the loan to enable the lender to ascertain the acceptability of the project and the riskiness of the loan. Seyoum's (2017) study of Ethiopian private banks similarly established that 90% of bank employees agreed that the purpose of the loan had to be checked before releasing funds to a prospective borrower. It also confirms the applicability of the CAMPARI lending model in Zimbabwean commercial banks.

3.6. Clear and adequate repayment source

A clear and adequate repayment source of the loan being sought by a farmer was also always considered by all the commercial banks in their agricultural credit evaluation processes in this study. The lending requirement scored a high RII of 1 (Table 1). Seyoum's (2017) study mentioned above again discovered that 93.3% of bank employees agreed that checking the repayment potential of a loan could help the bank to recover its loans successfully. It is also confirmed that the lender is obliged to establish the degree of certainty that the promised funds will be received through the analysis of income and cash flow projections, to ensure that there are surplus funds to cover repayment after meeting other commitments (Feschijan, 2008; Seyoum, 2017). Feschijan's (2008) study of Bulgarian banks also confirms that banks check if the potential borrower's source of repayment is clear and if there is a secondary source of repayment available in case of failure. Repayment is another component that is regarded as important by the CAMPARI model, which further validates its application in local banks.

3.7. Loan amount

A farmer was also obligated to determine the loan amount required for an agricultural project according to the study's findings. This lending requirement also scored a perfect RII of 1 (Table 1). The bank credit officers emphasized that the loan amount had to match the project financing needs of the farming enterprise, and also fall within the farmer's qualifying loan amount limit. Seyoum (2017) confirms that a bank considers whether the customer is asking too much or too little because there are dangers in both, which calls for banks to establish if the amount requested is correct, adequately accommodating incidental expenses and other contingencies. In support of these findings, Feschijan (2008) also avers that credit insufficiency or excess leads to the lowering of profitability of the credited undertaking, and may have several unfavorable effects on the financial situation of the borrower and his/ her capacity to service the debt by the negotiated terms. Therefore, the accumulation of information on the amount and aim of the requested loan by banks plays an important role in monitoring if the amount corresponds to the real financial needs of the

loan applicant (Feschijan, 2008). These findings also confirm that all commercial banks apply the Amount component of the CAMPARI model in Zimbabwe.

3.8. Agricultural production qualifications, skills and experience

The requirement for agricultural production qualifications, skills and experience scored a high RII of 0.96 (Table 1). A total of 7 out of the eight banks that participated in the study always considered this requirement in assessing agricultural production loan applications by farmers, while only one bank sometimes considered it. Figure 2 below shows what the banks said regarding the requirement for agricultural production skills within a farming enterprise.

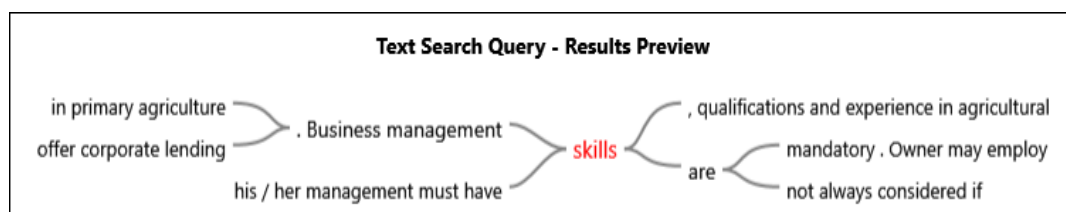


Figure 2: Word tree output for the word "Skills"

Source: Primary data, 2019

CB3 expounded that the farmers or their management team were supposed to have skills, qualifications and experience in agricultural production to be able to qualify for agricultural production loans. Tetteh (2011) confirms that the background and experience of individuals or businesses are perceived indicators of the potential for success, hence their inclusion as an important lending requirement. According to Seyoum (2017), the spread of skill and experience in the area where funding is sought among the management team is also considered in ascertaining borrower ability, as well as their relevant professional qualifications and their commitment to making the company successful. A study by Odu *et al.* (2010) in the Niger State of Nigeria also discovered that farmer experience was advantageous in the securing of formal credit facilities because it acted as a guarantee that the project would succeed. The emphasis on farm viability based on the production skills of the management in the majority of the commercial banks also validates the applicability of the CAMPARI model in Zimbabwean commercial banks.

3.9. Insurance

The need for agricultural project insurance also scored a high RII of 0.96 (Table 1). According to the bank credit officers, insurance acted as a cushion to the bank, which safeguarded it from loss in case of unforeseen events like theft and market price fluctuations, as well as natural disasters like droughts, floods and hailstorms. All of the banks indicated that insured agricultural projects were a must for a farmer to receive financing in Zimbabwe. These results coincide with claims by Tsikirayi *et al.* (2013). They aver that after the FTLRP, there was a decline in farming knowledge, insurance, management skills, experience, capacity and property ownership among the new breed of farmers compared to the previous owners, which resulted in elevated risk levels in the agricultural sector. This may serve to explain why most banks are strict on the financing of insured agricultural projects only. Mishra *et al.* (2017) in Ghana also confirm that agricultural insurance guarantees full loan repayment during drought spells, allowing lenders to expand credit access even to the marginalized smallholder farmers. It also confirms the applicability of the CAMPARI model in Zimbabwean commercial banks.

3.10. Financial statements and business plan

The requirement for financial statements of the agricultural enterprise also scored a high RII of 0.92 (Table 1). Six out of the eight commercial banks revealed that they always considered the requirement for a farm's financial statements in their evaluations of agricultural loan applications.

At the same time, the remaining two said that they sometimes required financial statements from farmers seeking loans. Closely related to this lending requirement was the need for a farmer to present a business plan, which scored another high but lower RII score of 0.88 (Table 1). Six commercial banks also revealed that they always required a business plan for a farming project that seeks funding. However, one commercial bank indicated that it sometimes considered the condition, while the remaining one bank never considered it. The banks revealed that historical financial statements and business plans enabled them to assess the project's viability, from which they could make sound lending decisions with certainty that their advanced loans would be paid back. CB8 stated that it always needed a letter of financing request, which is essentially a business plan. Supporting the banks' need for financial statements and business plans from potential borrowers, [Seyoum \(2017\)](#) avers that the analysis of income and cash flow projections by the bank ensures that there are surplus funds in the potential borrower's project to cover repayment after meeting other commitments.

In support of these findings, [Sebatta et al. \(2014\)](#)'s study in Zambia also revealed that farmers who were able to make informed decisions concerning the amount needed to undertake particular projects through making business plans, or budgets had better access to bank credit. According to the study, their better access to bank credit was premised on the fact that loan granting institutions usually needed such documents before issuing out loans. [Goeringer and Hanson \(2013\)](#) also aver that one document required by banks that demonstrates the business' ability to generate adequate cash is the business plan because it contains financial statements like projected cash flow statements and balance sheets that show the financial standing of an enterprise. The business plan is also purported to enable lending institutions to establish if the potential borrower has a basic understanding of the industry and the business, which may also suggest their ability to successfully manage the business ([Goeringer and Hanson, 2013](#)). Therefore, the requirement for these documents by local commercial banks to verify the ability of the farmer to repay the loan also validate the applicability of the CAMPARI model in agricultural lending in Zimbabwe.

3.11. Guarantor

This study also established that local commercial banks required guarantors for agricultural loans granted to farmers in Zimbabwe. This lending condition also scored a high RII of 0.88, as shown in Table 1 above. Five out of the eight commercial banks that participated in the study always required guarantors, while the remaining three sometimes required them when lending to farmers. CB1 stated that "Third party guarantors are considered subject to gearing checks and due diligence." CB7, on the other hand, indicated that it opted for co/ peer guaranteeing of farmers under communal irrigation setups, in which no new loans were granted until every farmer had honored his/her outstanding loan obligations. [Otieno \(2013\)](#) confirms that guarantees are a part of considerations that determine the acceptance or rejection of any loan, and have been one of the most popular credit risk reduction strategies by banks. Another Nigerian study by [Ololade and Olagunju \(2013\)](#) in the Oyo State of Nigeria also revealed that the availability of a guarantor positively affected the farmers' access to bank credit. [Abdul-Jalil \(2015\)](#)'s study in Ghana similarly revealed that farmers with guarantors had a higher likelihood of accessing higher loan amounts of credit from formal sources. Guarantors are part of the Insurance aspect of the CAMPARI model, and its requirement in the majority of the banks also validates the applicability of the model in Zimbabwe.

3.12. Social reputation

Five out of the eight commercial banks always considered the farmer's social reputation, whereas two sometimes considered it. However, only one bank highlighted that it never considered the farmers' social reputation in the evaluation of their agricultural loan applications. The borrowing condition consequently scored another high RII of 0.83 (Table 1). The banks which considered a farmer's social reputation before granting a loan clarified that a farmer's conduct in a society formed part of their verification of borrower character. [Safi and Lin \(2014\)](#) similarly assert that

character is concerned with reputation, which is the opinion about an entity resulting from social evaluation. According to Gebremedhin (2010), in ascertaining borrower character, lenders need to know the personal reputation of the borrowers and their attitude towards financial obligations. This lending requirement, which is directly linked to the character of the borrower, also confirms the application of the CAMPARI model in local commercial banks.

3.13. Age

Age also scored a high RII of 0.83 (Table 1). Five commercial banks always considered it, while two banks sometimes considered it in assessing agricultural loan applications. However, only one bank never considered age in its assessment of farmer loan applications.

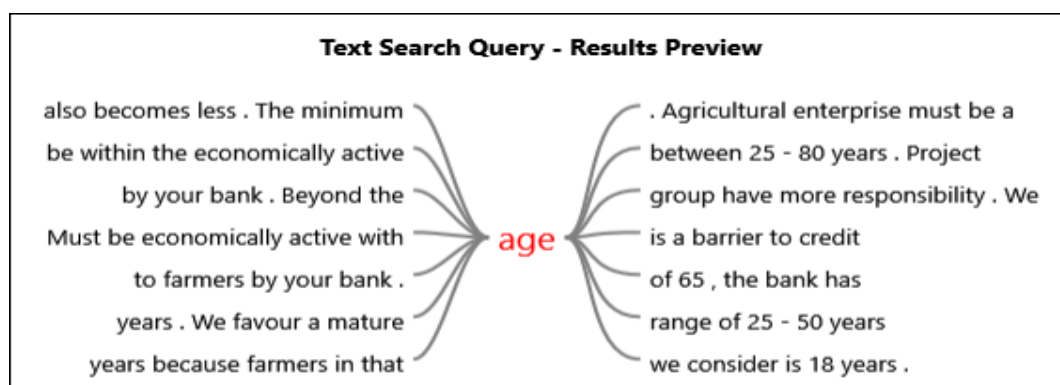


Figure 3: Word tree output for the word 'Age'

Source: Primary data, 2019

CB2 revealed that it accepted farmers ages between 25 to 80 years, while CB7 expressed no desire to deal with farmers beyond the age of 65 favouring a mature 25-50-year range (Figure 3). CB4 did not specify its preferred age group but highlighted that old age was a barrier to credit access among prospective farmer borrowers. On the other hand, CB8 underlined that if an old farmer makes a credit application, he/she should at least furnish the bank with a convincing succession plan. Empirical evidence from Ethiopia availed by Mukasa *et al.* (2017) equally established that older loan applicants were perceived as most likely to default than younger ones because of their higher risk of premature death and other recurring age-related health complications that could considerably undermine their ability to generate revenues for repaying credit. Age falls under the ability and repayment component of the CAMPARI model. Its requirement by the majority of the commercial banks in Zimbabwe also validates the applicability of the CAMPARI model in agricultural lending in the country.

3.14. High to medium importance requirements

Lending requirements whose RII fell within the high to medium importance range included agricultural extension support, business management qualifications, skills and experience, bank account ownership, own contribution to the loan requested and personal savings with a bank. These lending requirements are discussed in detail below.

3.15. Extension support

The lending requirement for agricultural extension support in the farm seeking a loan was always considered by exactly half (4) of the commercial banks, sometimes considered by three and never considered by 1. The lending requirement scored an RII of 0.79, which fell within the high to medium importance category (Table 1). According to the banks that always considered this condition in agricultural lending, extension support enhanced the farmers' knowledge of agricultural production, which helped them to enhance their yield, income and loan repayment

ability. It is supported by Djoumessi *et al.* (2018) 's study in Cameroon, where banks preferred farmers with higher extension contact to those who had less frequent extension contact. Tetteh *et al.* (2015) and Kiplimo (2015) 's studies in Northern Ghana and Kenya respectively also established higher credit access among farmers who received agricultural extension services. CB8, which sometimes considered extension support when lending to farmers, highlighted that it was only strict about the lending requirement in Value Chain Financing (VCF), especially for export markets production where strict specifications like product weight, moisture content or organic products had to be met.

3.16. Business management qualifications, skills and experience

The requirement for a farmer to have business management skills, qualifications and experience also scored an RII of 0.79 (Table 1). Similar to extension contact, 4 out of the eight commercial banks always considered them when lending to farmers, while three banks sometimes considered them. However, only one bank never considered business management qualifications, skills, and experience it in its evaluation of farmer loan applications.

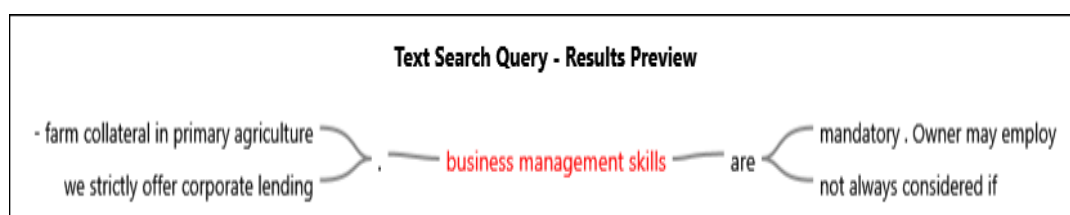


Figure 4: Word tree output for business management skills

Source: Primary data, 2019

CB4 indicated that business management skills were mandatory, and in their absence, a farmer could fill the gap by hiring technically competent employees. CB5 equally highlighted that the farmers' business management skills were not always considered if there was evidence that their farming enterprises were well run (Figure 4). Tetteh (2011) confirms that banks look at the evidence of financial understanding and aptitude in managing financial affairs of the business in potential borrowers. According to Feschijan (2008), the banks' believe that borrower profitability is highly dependent on the management and staff qualifications, professional qualities and competence. Hence its inclusion as a crucial lending requirement as confirmed by this study.

3.17. Bank account ownership

Four banks always considered bank account ownership with the bank from where the farmer is seeking bank credit, sometimes considered by three, and never considered by 1. This lending condition scored an RII score of 0.79, which also fell within the high to medium category (Table 1). CB1 stressed that bank account ownership by a prospective borrower was a must, which prompted the need for account opening. However, other commercial banks that sometimes or never considered account ownership by a farmer highlighted that the prospective borrower could always be requested to open an account at the point of contact with the bank. The importance of owning a bank account by a farmer is articulated in the study of Mohamed and Temu (2008), which established that it positively influenced farming households' access to bank credit in Zanzibar. Seyoum (2017) also confirms that account opening procedures are done to establish that the customer is honest and trustworthy, especially if the customer wishes to borrow at a later stage. According to Feschijan (2008), the analysis of movements in the bank accounts of a prospective borrower also furnishes the bank with valuable information about the financial state of the loan applicants, which is also crucial in the making of a lending decision.

3.18. Own contribution to the loan amount requested

The farmer's contribution to the loan amount requested was ranked in the medium to a high category with an RII score of 0.71 (Table 1). Only three banks always considered this requirement, sometimes considered by three banks and never considered by two banks. CB6, one of the banks that always considered own contribution as a lending requirement, implored farmers to have some equity to the loan amount they are seeking before approaching the bank. They were encouraged to seek part of the funding, for example, 60%. On the other hand, CB4, which never considered this lending requirement, highlighted that it only requested a farmer's contribution to the loan amount requested under asset financing facilities. Despite not demanding its own contribution to the loan amount requested by the farmer, CB3 highlighted that the owner's equity in the transaction came in the form of the crop in the field if the farmer approached the bank for other loans like asset financing facilities. [Goeringer and Hanson \(2013\)](#) confirm that banks usually dictate their clients to contribute a certain margin as a borrowing commitment because they seldom grant 100% financing. Confirming the need for a borrower's contribution to asset financing loans as shown by this study, [Abbadi and Karsh \(2013\)](#) underlined that a potential borrower is obliged to pay a certain percentage of the value of the asset that needs to be financed, which they claimed to show that the potential borrower had a high level of seriousness and commitment to the project by willing to share the risk with the lending institution. This requirement falls within the Margin component of the CAMPARI model, which also validates its applicability in Zimbabwean commercial banks.

3.19. Personal savings with bank

Personal savings with a bank scored the lowest RII score of 0.67 in the high to medium category (Table 1). Only three banks always considered savings as a lending condition for farmers, while two sometimes considered it. However, three banks never considered the personal savings of the farmer in the bank as a lending requirement. Banks that always considered this lending requirement highlighted that personal savings and deposits into the farmer's bank account provided evidence that the farmer could generate enough income from his/her farming enterprise, which therefore guided them in making lending decisions. [Sebatta et al. \(2014\)](#) confirms that personal and voluntary savings with a bank positively affect the loan amounts that farmers accessed from banks in the case of Zambia. The banks that sometimes considered this lending requirement only highlighted that it was difficult to use personal savings as a measure of creditworthiness in Zimbabwe, where most individuals and corporates lack confidence in the formal banking system but opt for alternative saving options like physical assets. Moreover, the availability of alternative payment systems that have been more efficient than bank accounts like Ecocash and One Money have negatively affected the amount of savings channeled into the banking system. Hence, the use of personal savings with a bank as a criterion for judging a potential borrower's creditworthiness could segregate against other potentially good borrowers who may be making meaningful alternative savings or making use of alternative transacting platforms.

3.20. Medium importance requirements

Three lending conditions, namely formal basic education, alternative income, and freehold land ownership, scored lower RIIs, which fell within the medium importance category as discussed further below.

3.20.1. Formal basic education

The lending requirement for a farmer with formal basic education scored a low RII of 0.54 (Table 1). Only one bank (CB4) always considered farmer education because educated farmers understood better the conditions and other requirements of their contracts, and were therefore in a better position to honor their loan obligations. This is confirmed by [Ijioma and Osondu \(2015\)](#) in the case of Nigeria that educated farmers' better understanding of loan contracts, better tendencies of loan management and their adoption of new productivity-enhancing technologies improved their repayment potential. Also, education was perceived by lenders as a signal that prospective borrowers were financially mature, creditworthy, and capable of better credit management in

Mukasa *et al.* (2017) 's study in Ethiopia. Three banks sometimes considered farmer education, while an additional four never considered this lending condition. Most of these banks highlighted that the farmer's education was not an issue, but the farm's management team had to be educated to some extent. However, more emphasis was placed on their agricultural production qualifications and skills instead of their formal education qualifications.

3.20.2. Alternative employment

The need for a farmer to have alternative employment scored another low RII of 0.54, which also fell within the medium importance category (Table 1). Only one bank (CB7) always considered the farmers' alternative employment because it guaranteed the repayment of the loan in case of the agricultural project's failure. CB1, which sometimes considered this lending requirement, stated that "A diversified portfolio of income is not a key requirement, but an advantage for gaining credit access". This validates reports that loans in Zimbabwe are easily accessed by individuals who have proof of alternative employment like payslips because they are perceived as less risky by banks (FACASI, 2015). On the other hand, three banks sometimes considered this lending requirement, whereas the other three never considered it in lending to farmers. Expounding why it never considered alternative farmer employment in granting loans, CB1 underscored that a full-time farmer was preferable than the one involved in other activities off the farm because the presence of a full-time farmer on the ground at all times helps in reducing theft risk. The bank also argued that a full-time farmer results in better management of the farm.

3.20.3. Freehold land ownership

The requirement for farm title deeds or freehold land ownership also scored a low RII of 0.54 in the medium importance category (Table 1). Only one bank (CB2) emphasized that it required farm title deeds to extend bank credit to a farmer, while three banks sometimes considered them, and four never considered them altogether. Some of the banks highlighted that where there was solid proof of project viability, they accepted the 99-year lease document and also adopted cashflow based instead of collateral-based lending. These results were quite unexpected to the researcher, who expected freehold land ownership to be the key lending requirement in local banks in light of the available literature, which propounds that most farmers are denied credit access by local banks because they are required to produce farm title deeds, which they do not have because the state wholly owns their land (Masiyandima *et al.*, 2011; Ministry of Agriculture, 2013; Richardson, 2005; Vitoria *et al.*, 2012).

Three banks (CB1; CB3 and CB4) went on to highlight that even if they practiced more of cash flow based lending, every loan in primary agriculture had to be backed by off-farm titled collateral in light of the lack of land titles among land reform beneficiaries in Zimbabwe (Figure 5). Therefore, based on these findings, this study infers that as long as the farmers who benefitted untitled land under the FTLRP do not have titled property off the farm to pledge as collateral, then their chances of accessing bank credit in Zimbabwe are very slim. These findings are also corroborated by several studies which claim that local banks are reluctant to lend to farmers under the current land tenure system of user rights, but instead demand upfront immovable and titled property (Masiyandima *et al.*, 2011; Nyamutowa and Masunda, 2013; Richardson, 2005; Vitoria *et al.*, 2012).

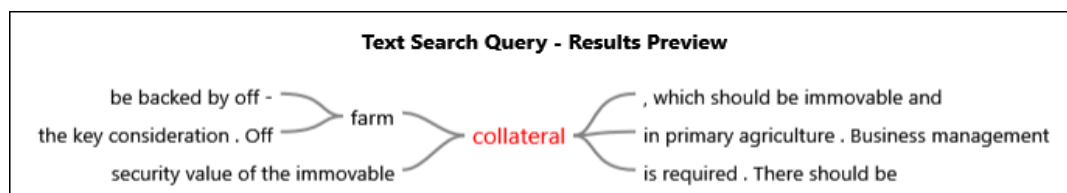


Figure 5: Word tree output for the word collateral

Source: Primary data, 2019

4. CONCLUSION AND RECOMMENDATIONS

Commercial banks in Zimbabwe consider multiple requirements for assessing agricultural loan applications. Credit history, registered business, irrigation, loan purpose and repayment source are their major considerations for lending to farmers in Zimbabwe. Therefore, the government of Zimbabwe should not only focus on solving the collateral problem, but also other lending requirements by banks. Farmers are encouraged to treat their farming enterprises as businesses, pursue training in production and management, maintain a clean credit history and invest in off-farm collateral assets.

Funding: This study received no specific financial support.

Competing Interests: The authors declare that there is no competing interest.

Contributors/Acknowledgement: All authors participated equally in designing and estimation of current research.

Views and opinions expressed in this study are the views and opinions of the authors; the Asian Journal of Agriculture and Rural Development shall not be responsible or answerable for any loss, damage or liability, etc. caused in relation to/arising out of the use of the content.

References

- Abbadi, S. M., & Karsh, S. M. A. (2013). Methods of evaluating credit risk used by commercial banks.pdf. *International Research Journal of Finance and Economics*, 111, 146–159.
- Abdul-Jalil, M. A. (2015). *Determinants of access to credit and its impact on household food security in Karaga District of the northern region of Ghana*. [http://dspace.knust.edu.gh/bitstream/123456789/8049/1/ma-Az Abdul-Jalil.pdf](http://dspace.knust.edu.gh/bitstream/123456789/8049/1/ma-Az%20Abdul-Jalil.pdf).
- Afolabi, L. (1998). *Monetary economics*. Perry Barr Limited.
- Bhatasara, S. (2011). Women, land and poverty in Zimbabwe: deconstructing the impacts of the fast track land reform program. *Journal of Sustainable Development in Africa*, 13(1), 316–330. <https://pdfs.semanticscholar.org/b281/12469afb2ba5e730df0c52ccda819263b7dd.pdf>.
- Chepkoech, D. (2014). *The effect of credit assessment process on repayment of bank loans in commercial banks in Kenya*. In Masters Thesis of Business Administration. [http://erepository.uonbi.ac.ke/bitstream/handle/11295/75235/Chepkoech Dorothy_The Effect of Credit Assessment Process on Repayment of Bank Loans in Commercial Banks in Kenya.pdf?sequence=3](http://erepository.uonbi.ac.ke/bitstream/handle/11295/75235/Chepkoech%20Dorothy_The%20Effect%20of%20Credit%20Assessment%20Process%20on%20Repayment%20of%20Bank%20Loans%20in%20Commercial%20Banks%20in%20Kenya.pdf?sequence=3).
- Davoodi, T., & Dagli, U. U. (2019). Exploring the determinants of residential satisfaction in historic urban quarters: Towards sustainability of the Walled City Famagusta, North Cyprus. *Sustainability (Switzerland)*, 11(22), 1-25. <https://doi.org/10.3390/su11226261>.
- Djoumessi, Y. F., Kamdem, C. B., Afari-Sefa, V., Bidogeza, J. C., Djoumessi, Y. F., & Kamdem, C. B. (2018). Determinants of smallholder vegetable farmers' credit access and demand in Southwest region, Cameroon. *Economics Bulletin*, 38(2), 1231–1240. <http://hdl.handle.net/10419/179942www.econstor.eu>.
- Echanove, J. (2017). *Food security, nutrition, climate change resilience, gender and the small-scale farmers*. <https://www.fanrpan.org/sites/default/files/publications/Zimbabwe/policy/analysis/final.pdf>.
- FACASI (2015). *Financial Products for Farmers and Service Report*. http://facasi.act-africa.org/file/20160125_financial_products_for_farmers_and_service_providers_report_zimbabwe.pdf.
- Fan, S., Brzeska, J., Keyzer, M., & Halsema, A. (2013). From subsistence to profit; transforming smallholder farms. *International Food Policy Research Institute (July)*. <https://doi.org/10.1016/j.euromechsol.2011.01.004>.
- Feschijan, D. (2008). Analysis of the creditworthiness of bank loan applicants. *Economics and Organization*, 5(3), 273–280. <http://facta.junis.ni.ac.rs/eao/eao200803/eao200803-10.pdf>.
- Gebremedhin, K. T. (2010). *Determinants of successful loan repayment performance of private borrowers in Development Bank of Ethiopia, North Region* (Issue May) [Mekelle

- University].
<https://opendocs.ids.ac.uk/opendocs/bitstream/handle/123456789/5139/determinantsofsuccessfulloanrepayment.pdf?sequence=1>.
- Goeringer, P., & Hanson, J. (2013). *Review of lender requirements for beginning farmer loan products*.
<https://drum.lib.umd.edu/bitstream/handle/1903/15007/Credit/Fact/Sheet.pdf?sequence=1>.
- Government of Zimbabwe (2017). *Movable property security interests* (Chapter 14:15), Pub. L. No. 9/2017, 149 (2017).
http://www.veritaszim.net/sites/veritas_d/files/Movable_Property_Actr.pdf.
- Hair, J., Black, W., Babin, B., Anderson, R., & Tatham, L. (2006). *Multivariate data analysis*. Pearson International Edition.
- Ijioma, J. C., & Osondu, C. K. (2015). Agricultural credit sources and determinants of credit acquisition by farmers in Idemili Local Government Area of Anambra State. *Journal of Agricultural Science and Technology B*, 5, 34-43. <https://doi.org/10.17265/2161-6264/2015.01.004>.
- Ike, P. C., & Umuedafe, D. E. (2013). Determinants of savings and capital formation among rural farmers in Isoko North local government area of Delta State, Nigeria. *Asian Economic and Financial Review*, 3(10), 1289–1297.
- International Finance Corporation. (2014). *Access to finance for smallholder farmers: learning from the experiences of microfinance institutions in Latin America*. www.ifc.org.
- Joliya, P., Kamalvanshi, V., Kushwaha, S., & Lpi, S. (2017). Determinants of capital formation in agriculture: Hadoti Region of Rajasthan, India. *International Journal of Current Microbiology and Applied Sciences*, 6(7), 4239–4245.
<https://doi.org/10.20546/ijcmas.2017.607.439>.
- Kiplimo, J. C. (2015). Determinants of access to credit by smallholder farmers in eastern and western Kenya. *Journal of Development and Agricultural Economics*, 7(9), 303–313.
<https://doi.org/10.5897/JDAE2014.0591>.
- Makumbe, J., Jowa, J., & Muzuva, H. (2001). *Liberalisation of agricultural markets*. Retrieved from http://www.saprin.org/zimbabwe/research/zim_agriculture.pdf.
- Masiyandima, N., Chigumira, G., & Bara, A. (2011). *Sustainable financing options for agriculture in Zimbabwe* (ZWPS 02/10, Issue March).
- Mayowa, B. T. (2015). *Determinants of agricultural credit acquisition from the land bank of South Africa: A case study of smallholder farmers in peri-urban areas of Mopani District, Limpopo Province, South Africa*.
http://ulspace.ul.ac.za/bitstream/handle/10386/1730/braide_tm_2015.pdf?sequence=1&isAlloved=y.
- Ministry of Agriculture Zimbabwe. (2013). *Zimbabwe agriculture investment plan (ZAIP): A comprehensive framework for the development of Zimbabwe's agriculture sector*. (pp. 1–131). <http://extwprlegs1.fao.org/docs/pdf/zim152671.pdf>.
- Ministry of Finance and Economic Development. (2017). *National budget statement for 2018*. http://www.zwrcn.org.zw/images/Budget_corner/2018_Budget_Statement_Final.pdf.
- Mishra, K., Sam, A. G., & Miranda, M. J. (2017). *You are approved!, insured loans improve credit access and technology adoption of Ghanaian farmers*.
<http://pubdocs.worldbank.org/en/570041495654735804/D2-Mishra-et-al-ABCA-20170518.pdf>.
- Mohamed, K. S., & Temu, A. (2008). Access to credit and its effect on the adoption of agricultural technologies: the case of Zanzibar. *Africa Review of Money, Finance and Banking*, 45-89.
- Mukasa, A. N., Simpasa, A. M., & Salami, A. O. (2017). *Credit constraints and farm productivity: Micro-level evidence from smallholder farmers in Ethiopia*. In African Development Bank (Issue 247). <https://doi.org/10.1039/c5ra03566j>.
- Njogu, G. K., Olweny, T., & Njeru, A. (2018). Relationship between farm production capacity and agricultural credit access from commercial banks. *International Academic Journal of Economics and Finance*, 3(1), 159–174.

- Ntow-Gyamfi, M., & Boateng, S. S. (2013). Credit risk and loan default among Ghanaian banks: An exploratory study. *Management Science Letters*, 3(3), 753–762. <https://doi.org/10.5267/j.msl.2013.01.015>.
- Nyamutowa, C., & Masunda, S. (2013). An analysis of credit risk management practices in commercial banking institutions in Zimbabwe. *International Journal of Economic Research*, 4(1)(2229–6156), 31–46.
- Odu, O., Okoruwa, V., Adenegan, K., & Olajide, A. (2010). Determinants of rice farmer's access to credit in Niger State, Nigeria. *Journal of Rural Economics and Development*, 20(1), 8–20.
- Ololade, R., & Olagunju, F. (2013). Determinants of access to credit among rural farmers in Oyo State, Nigeria. *Global Journal of Science Frontier Research Agriculture and Veterinary Services*, 13(2), 17–22. <https://doi.org/10.12691/AJRD-1-5-5>.
- Omankhanlen, A. (2012). The role of banks in capital formation and economic growth: the case of Nigeria. *Economy Transdisciplinarity Cognition*, 5(103), 103–112.
- Otieno, M. (2013). *The effect of the lending policies on the levels of non-performing loans (NPLs) of commercial banks in Kenya*. [http://chss.uonbi.ac.ke/sites/default/files/chss/Owino Michael Otieno - The effect of lending policies on the levels of NPLs of Commercial Banks in Kenya.pdf](http://chss.uonbi.ac.ke/sites/default/files/chss/Owino%20Michael%20Otieno%20-%20The%20effect%20of%20lending%20policies%20on%20the%20levels%20of%20NPLs%20of%20Commercial%20Banks%20in%20Kenya.pdf).
- Owusu-Dankwa, I., & Badu, G. P. (2013). Principles and practice of lending in the banking sector: a case study of some selected banks in Ghana. *Journal of Contemporary Integrative Ideas*, 1(2), 9–21.
- Ponnala, V. (2016). Impact of banks deposit mobilization and credit financing on capital formation. *International Research Journal of Marketing and Economics*, 3(6), 67–87.
- RBZ (2013) Operationalising the Collateral Registry. https://www.rbz.co.zw/documents/credit_registry/CollateralRegistryPamphlet.pdf.
- RBZ (2016). Monetary Policy Statement. <https://www.rbz.co.zw/assets/monetary-policy-statement-january-2016.pdf>.
- RBZ (2019). Monetary Policy Statement: Establishment of an inter-bank foreign exchange market to restore competitiveness, 1 (2019). <https://www.rbz.co.zw/documents/mps/mpsfeb2019.pdf>.
- Richardson, C. J. (2005). The loss of property rights and the collapse of Zimbabwe. *Cato Journal*, 25(3), 1–35.
- Rooshdi, R. R. R. M., Majid, M. Z. A., Sahamir, S. R., & Ismail, N. A. A. (2018). Relative importance index of sustainable design and construction activities criteria for green highway. *Chemical Engineering Transactions*, 63(2007), 151–156. <https://doi.org/10.3303/CET1863026>.
- Rouse, C. (1989). *Bankers lending techniques*. London Chartered Institute of Bankers.
- Rukuni, M. (2012). *Why Zimbabwe needs to maintain a multi - form land tenure system*. 1–5. [http://www.swradioafrica.com/Documents/Sokwanele Why Zim needs to maintain a multi-form land tenure system.pdf](http://www.swradioafrica.com/Documents/Sokwanele%20Why%20Zim%20needs%20to%20maintain%20a%20multi-form%20land%20tenure%20system.pdf).
- Safi, R., & Lin, Z. (2014). Using non-financial data to assess the creditworthiness of businesses in online trade. *PACIS*, 206 (2014) 1–14.
- Samuel, E., Isah, M. A., & Patil, B. L. (2015). The Determinants of access to agricultural credit for small and marginal farmers' in Dharwad district, Karnataka, India. *Research Journal of Agriculture and Forestry Sciences*, 3(5), 1–5.
- Sebatta, C., Wamulume, M., & Mwansakilwa, C. (2014). Determinants of smallholder farmers' access to agricultural finance in Zambia. *Journal of Agricultural Science*, 6(11), 63–73. <https://doi.org/10.5539/jas.v6n11p63>.
- Seyoum, G. (2017). *The application of CAMPARI model in lending decisions in the case of Ethiopian Private Banks*. <http://repository.smuc.edu.et/bitstream/123456789/3163/1/Genene/Seyoum.pdf>.
- Shonhe, T. (2018). *The political economy of agricultural commercialization in Zimbabwe* (Issue April). [https://opendocs.ids.ac.uk/opendocs/bitstream/handle/123456789/13817/WP_12 Layout_FI NAL%28003%29.pdf?sequence=1&isAllowed=y](https://opendocs.ids.ac.uk/opendocs/bitstream/handle/123456789/13817/WP_12_Layou%20FI%20NAL%2003%2029.pdf?sequence=1&isAllowed=y).

- Somiah, M. K., Osei-Poku, G., & Aidoo, I. (2015). Relative importance analysis of factors influencing unauthorized siting of residential buildings in the Sekondi-Takoradi Metropolis of Ghana. *Journal of Building Construction and Planning Research*, 03(03), 117–126. <https://doi.org/10.4236/jbcpr.2015.33012>.
- Sulaiman, L. A., & Aluko, O. A. (2015). Financial intermediation and economic growth: A test for causality in Nigeria. *Banks and Bank Systems*, 10(4), 69–74.
- Swinkels, R., & Chipunza, P. (2018). *Trends in poverty, urbanization and agricultural productivity in Zimbabwe Preliminary findings*. <https://www.cfuzim.org/~cfuzimb/images/wburban.pdf>.
- Tetteh, A. B., Sipilainen, T., Backman, S., & Kola, J. (2015). Factors influencing smallholder farmers access to agricultural microcredit in Northern Ghana. *African Journal of Agricultural Research*, 10(24), 2460–2469. <https://doi.org/10.5897/ajar2015.9536>.
- Tetteh, E. N. N. (2011). *Assessment of loan quality: evidence from listed banks* [Kwame Nkrumah University of Science and Technology]. <http://dspace.knust.edu.gh/bitstream/123456789/4323/1/Ethel/Naa/Nueki/Tetteh.pdf>.
- Tsikirayi, C. M. R., Makoni, E., & Matiza, J. (2013). Analysis of the uptake of agricultural insurance services by the agricultural sector in Zimbabwe. *Journal of International Business and Cultural Studies*, 7, 1–14.
- United Nations (2014). *Zimbabwe country analysis working document final draft*. <https://doi.org/http://dx.doi.org/10.1093/ehjci/jev278>.
- Vitoria, B., Mudimu, G., & Moyo, T. (2012). Status of agricultural and rural finance in Zimbabwe. *FinMark Trust*, July. http://www.finmark.org.za/wp-content/uploads/2016/01/Rep_Status-of-RAFin_Zim.pdf.
- Wulandari, E., Meuwissen, M. P. M., Karmana, M. H., & Oude Lansink, A. G. J. M. (2017). Access to finance from different finance provider types: Farmer knowledge of the requirements. *PLoS ONE*, 12(9), 1-15. <https://doi.org/10.1371/journal.pone.0179285>.