Vol. 12(3), pp. 84-94, July-September 2020

DOI: 10.5897/JEIF2020.1033 Article Number: 26C340164289

ISSN 2006-9812 Copyright©2020

http://www.academicjournals.org/JEIF

Author(s) retain the copyright of this article



Journal of Economics and International Finance

Full Length Research

Stimulating farmer access to bank credit in Zimbabwe: The bankers' perspective

Chigunhah Blessing Ropafadzo^{1*}, Svotwa E.², Govere I.³ and Chikazhe L.⁴

¹Graduate Business School, Chinhoyi University of Technology, Zimbabwe. ²Department of Crop Science and Post-Harvest Technology, Chinhoyi University of Technology, Zimbabwe. ³Faculty of Agriculture and Environmental Sciences, Bindura University of Science Education, Zimbabwe. ⁴Department of Marketing, Chinhoyi University of Technology, Zimbabwe.

Received 11 April, 2020; Accepted 2 July, 2020

Access to finance by farmers is recognized as a tool for poverty eradication in developing countries, where the majority depends on agriculture for survival. This study sought to establish strategies for enhancing farmer access to bank credit as prescribed by the lenders themselves. A structured interview guide collected primary data from a sample of 12 registered commercial banks in Zimbabwe, which were analysed by thematic analysis. Human capital formation activities that enhance agricultural production and business management knowledge were proffered as key strategies for stimulating bank credit access. On and off farm investments in physical assets were also suggested to equip farmers with productive assets for enhancing viability and loan repayment ability, and to fulfil stringent collateral requirements by banks. Social capital formation activities through building relationships that enhance farmer knowledge were also perceived as key for enhancing credit access. Therefore, policy should subsidize farm infrastructural development initiatives by farmers and intensify agricultural extension services for enhancing farmer knowledge. Farmers should pursue personal development programs in agricultural production and business management, and create farmer-based organizations for sharing risk and knowledge. Banks are encouraged to adopt locally adaptive lending models to meet the farmers halfway.

Key words: Bank credit, credit constraints, creditworthiness, CAMPARI, investments, human capital formation, physical capital formation, social capital formation.

INTRODUCTION

The African Union Maputo Declaration of 2003 implored African nations to dedicate at least 10% of their national budgets towards agriculture in recognition of the role it plays as a source of livelihood for the majority of the poor and food insecure populace (Garvelink, 2012; Gutsa,

2010). In Zimbabwe, agriculture generates selfemployment opportunities for 59.3% of the economically active population, whilst an additional 23% are formally employed by the sector (Ministry of Agriculture Zimbabwe, 2017; Swinkels and Chipunza, 2018). Despite

Author(s) agree that this article remain permanently open access under the terms of the Creative Commons Attribution License 4.0 International License

^{*}Corresponding author. E-mail: blessingmhere@gmail.com. Tel: +263716885917.

this, the Zimbabwean agricultural sector faces financing challenges, mainly access to formal bank credit (Masiyandima et al., 2011; Vitoria et al., 2012). According to Masiyandima et al. (2011), Zimbabwean banks have maintained small agricultural loan books ranging between 10 and 25% since the introduction of the multi-currency regime in 2009. The agricultural sector could also only attract 19% of the US\$3.8 billion credit advanced by the banking sector since the economy was dollarized in 2009 (FACASI, 2015). In response to these financial constraints, the government of Zimbabwe formulated several policies, some of which are not yet operational. Between 2000 and 2004, the ZW\$1.5 trillion Productive Sector Facility (PSF) availed ZW\$1.2 trillion to the agricultural sector, whilst its successor policy, the Agricultural Sector Productivity Enhancement Facility (ASPEF), disbursed a cumulative amount of ZW\$5.59 trillion by December 2005.

The government also introduced the Collateral Registry, which sought to enable individuals and businesses to utilize their movable property as collateral for credit (Reserve Bank of Zimbabwe (RBZ), 2013). The registry was enacted by the Parliament of Zimbabwe in 2017 under the Movable Property Security Interests Act (Chapter 14:35), but is however yet to be operationalized (Government of Zimbabwe, 2017). Command agriculture, a government-mediated contract farming arrangement in which international and domestic capitalists worked in collaboration with local banks, was another initiative put in place for easing the local farmers' financial access constraints (Echanove, 2017). In the 2018 Budget Statement, the Ministry of Finance and Economic Development (2017) declared 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 channeled towards the program through treasury bills (Shonhe, 2018).

The government of Zimbabwe also sought to improve tenure security for its land reform beneficiaries to allow them to use their landholdings as collateral for accessing finance through the 99 Year Lease Agreements (Rukuni, 2012). The main objective of the 99 Year Lease was to give tenure to medium and large scale farmers (Inter Ministerial Taskforce (IMT), 2016). However, its acceptability as collateral by local banks remains contentious because of its non-transferability to third parties. Most of these highlighted remedial policies for addressing the agricultural credit scarcity problem in Zimbabwe were marred by delays in the release of funds to farmers, hyperinflation and political interferences, which rendered them less effective to the problem at hand. The majority of the policies were also targeted at solving the collateral problem among local farmers, and in some cases circumventing the problem altogether to ensure the perpetuity of agricultural activities despite the absence of collateral.

However, according to bank lending theory, collateral is not the only factor that lenders consider when assessing borrower creditworthiness. According to Safi and Lin (2014), creditworthiness is the intrinsic quality of people and businesses that is mirrored in their ability and willingness to fulfil their business obligations. The analysis of borrower creditworthiness involves a preliminary study of the factors that can adversely affect the duly repayment of credit like borrower's efficiency, reputation, capacity for making profit, asset value, economic situation, and also profitability (Feschijan, 2008). Advancing credit to creditworthy borrowers is regarded as one of the most significant functions of commercial banks, which is directly related to economic development (Otieno, 2013). Therefore, it is crucial in a bank's role as a financial intermediary to be able to extract data from borrowing and potential borrowing customers to complement the data it gathers from the economic environment (Newton. Jakušonoka and Barakauska (2016) promulgated that a wrong evaluation of a borrower's credibility and related credit risk may result in non-performing loans, which may worsen bank key performance indicators like liquidity.

The assessment of creditworthiness and business health is the first crucial step to be taken before entering into any type of interaction, which was traditionally done through subjective methods but evolved to become more objective through automation (Safi and Lin, 2014). The lending models that are often used in credit analysis processes by lenders like banks describe the various structures of policies and procedures that ought to be followed before loans are advanced to customers (RBZ, 2006). Banks attach substantial importance to screening loans through these rigorous lending requirements with the aim of eliminating borrowers who are likely to default, adding incentives for borrowers to repay the loans, offsetting the cost to the lender of a loan default, and reducing the overall lending risk (Owusu-Dankwa and Badu, 2013). Different models such as 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) model, and Financial Analysis and Past Experiences (FAPE) guide lenders in the assessment of their potential borrowers' creditworthiness (Abbadi and Karsh, 2013).

Zech and Pederson (2003) ascribe this existence of numerous credit analysis models to the lack of harmony on a unique set of variables that explain creditworthiness because individual institutions will be searching for specifications that best predict borrower performance and repayment capacity. The CAMPARI model is one of the popular credit evaluation models used by banks in approving or rejecting credit requests by potential borrowers from their limited resources (Seyoum, 2017). Such a credit evaluation model is not based on a single

factor, but upon how an applicant meets a set of lending criteria dictated by a bank, which reflect the risk appetite of the credit grantor concerned. The CAMPARI model therefore looks at aspects covering not just the finance that is being sought, but the people who are seeking it (Owusu-Dankwa and Badu, 2013). It is categorized as a judgmental or qualitative model of loan assessment. Rouse (1989), who is the proponent of the CAMPARI model, states that applying the CAMPARI technique during the initial assessment of the borrower helps in determining whether a loan is good or bad, recoverable or not recoverable. The CAMPARI model represents seven variables that banks can use to evaluate credit applications on the basis of character, ability to repay, margin of profit, purpose of the loan, amount being requested, the terms of repayment and the insurance in case of default (Abbadi and Karsh, 2013). According to Owusu-Dankwa and Badu (2013), the CAMPARI model provides bankers with a tried and trusted model of credit analysis.

Several studies have investigated the determinants of bank credit access among farmers from the demand side. Farmer and farm attributes like experience, income, collateral value, land ownership, past credit participation, owned. membership to farmer organizations, education, marital status, sex, and age were identified as some of the important determinants of bank credit access by farmers (Abdul-Jalil, 2015; Adams, 2015; Ijioma and Osondu, 2015; Mayowa, 2015; Mukasa et al., 2017; Njogu et al., 2018; Odu et al., 2010; Sagib et al., 2018; Sebatta et al., 2014). Most of these studies also applied statistical modelling techniques to comprehend the determinants of bank credit access among farmers. especially regression analysis. This paper is one of the few (Wulandari et al., 2017), which recognize bank lending requirements as the ultimate determinants of bank credit access among farmers because lenders are the ones who set the requirements that are used at all times to screen potential borrowers. Moreover, the paper uniquely proposes that if the farmers are not enlightened on what the lenders want, then their access to bank credit will remain a big problem in Zimbabwe and beyond. The study is also one of the few, for example (Korir, 2013) who used content analysis, which refrained from the employment of quantitative modelling techniques in comprehending the determinants of bank credit access among farmers. Instead, it opted for an in-depth qualitative method to understand what can be done by various stakeholders to stimulate bank credit access among the farmers. Therefore, the study sought to understand what commercial banks in Zimbabwe recommended as strategies for stimulating bank credit access among farmers.

MATERIALS AND METHODS

The study was underpinned by interpretivism, a qualitative research paradigm, to achieve its objective of establishing strategies for

stimulating bank credit access among farmers in Zimbabwe. Contrary to positivists, qualitative research purists believe that there are multiple realities in the social world that can be derived from the perceptions and resultant actions of people (Burrel and Morgan, 1979; Saunders et al., 2016). In addition, they believe that researchers cannot detach themselves from their own values when conducting research (Saunders et al., 2016). Qualitative research strategies also claim that the "knower" and the "known" cannot be separated because the subjective knower is the only source of reality (Terrell, 2012). Accordingly, in this study, the knower, who is the banker, was given the opportunity to convey perceptions and opinions regarding what could be done to enhance the farmers' access to bank credit in Zimbabwe in recognition of the fact that they are the ones who set the rules or conditions for bank credit access.

Population, sampling procedure and sample size

The study was conducted in Harare, the capital city of Zimbabwe, which is home to all the commercial banks' head offices. Its target population was made up of 13 registered commercial banks in Zimbabwe (RBZ, 2020). Due to the small number of commercial banks involved, the study decided to include all of them in the sample in order to gain an accurate picture of what has to be done to stimulate bank credit access among farmers in Zimbabwe. However, only 12 of the banks are currently operational. As a result, the 12 operational and registered commercial banks in Zimbabwe formed part of the study's sample.

Data collection

Primary data were collected from the bank credit officers in the commercial banks' agribusiness units making use of a pre-tested structured interview guide. Prior appointments were made over the phone with potential respondents to ensure that they would be available in office on the day of the oral interview. The structured interview guide enabled the researcher to manage bias issues that usually arise when the interviewer and interviewee become too involved with each other. Hence, the structured interview guide helped the researcher to strictly and objectively adhere to the agenda at hand.

Data analysis

Data were analyzed by thematic analysis making use of NVivo 12 Plus. The researcher initially read through the respondents' verbatim responses, and subsequently created themes for responses that related to the same subject. The data were subsequently transcribed into NVivo, after which the responses were coded under the themes to which they belonged. The most popular themes were then identified and discussed in detail. Tables, exploratory diagrams, word clouds, comparison diagrams and word trees were used to present the analyzed data. In line with Gibbs (2018), a detailed protocol and database was set up to ensure that other researchers who would like to conduct the same study would be able to follow the same procedure. The researcher also employed member checking by going back to the study's participants with the findings for them to confirm if they reflected the truth (Cresswell, 2014). This was done and the bank credit officers confirmed that the findings were valid.

RESULTS AND DISCUSSION

Out of the 12 targeted commercial banks, seven participated in the oral interviews after the point of

Theme	Number of banks that mentioned the same theme, n=7	Number of times the theme was mentioned
Human capital formation	4	8
Physical capital formation	4	7
Social capital formation	2	5
Account activity	2	2
Land tenure	2	2
Diversification	2	2

Table 1. Summary of emerging themes from oral interviews with commercial bank credit officers.

Source: Primary Data (2019).

Own equity

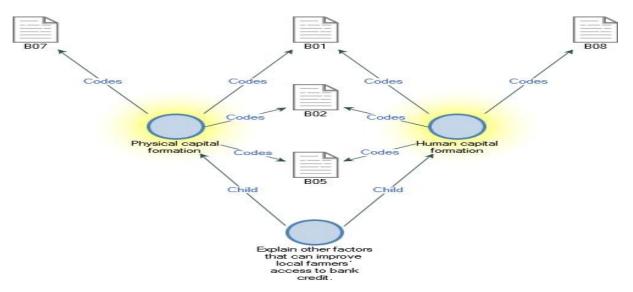


Figure 1. Comparison diagram of the top two themes; human capital formation and physical capital formation. Source: Primary Data (2019).

saturation had been reached when no new knowledge was being generated from the interviews.

Summary of emerging themes

The bank credit officers' verbatim responses on the factors they perceived as key for enhancing the local farmers' access to bank credit were grouped and coded under 7 emerging themes. These themes included the need for bank account activity, human capital formation, own equity, social capital formation, diversification, physical capital formation and the addressing of land tenure issues (Table 1). The summary of the number of commercial banks that discussed the aforementioned themes, and how frequent the themes were mentioned is tabulated in Table 1.

Three themes namely human capital formation, physical capital formation and social capital formation emerged as the dominant themes in the oral interview discussions with the bank credit officers. Four out of the

seven bank credit officers mentioned words coded under the human capital formation theme for eight times. Hence, human capital formation emerged as the major theme in the study. Similarly, four bank credit officers mentioned words that were coded under the physical capital formation theme for seven times. Therefore, physical capital formation emerged as the second most discussed theme in the study. Words coded under the social capital formation theme were also mentioned by two banks for five times, and emerged as the third most discussed theme. The least mentioned theme was that of own equity contribution to the loan amount requested by the farmer. A comparison of the top two themes of human capital formation and physical capital formation was done (Figure 2).

Comparison of the top two emerging themes

The files coded B01...B08 (Figure 1) represent the individual commercial banks that participated in the



Figure 2. Word cloud of bank credit officers' verbatim responses coded under the Human Capital Formation theme. Source: Primary Data (2019).

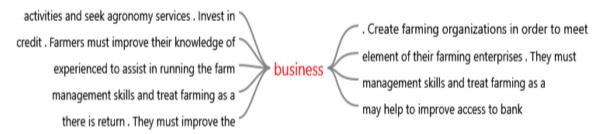


Figure 3. Word tree output of the sub-theme "business". Source: Primary Data (2019).

study. The child arrows represent the two major themes that arose when the bank credit officers were asked to explain the factors that could improve the local farmers' access to bank credit. In addition, the code arrows represent the individual bank credit officers' responses which were coded under the two main themes.

The comparison diagram (Figure 1) shows that a total of five bank credit officers from commercial banks B01, B02, B05, B07 and B08 identified human and physical capital formation activities as key strategies for stimulating bank credit access among farmers in Zimbabwe. Out of those five commercial banks, three (B01, B02 and B05) believed that a combination of both physical and human capital formation activities on the farm could enhance the farmers' access to bank credit in Zimbabwe. Only B07 believed that physical capital formation activities alone could be key for enhancing bank credit access among the farmers. On the other hand, B08 also believed that human capital formation activities could solely be adopted to improve bank credit access among farmers in Zimbabwe. Despite this, the majority (60%) of the 5 banks believed in the combination of both human and physical capital formation strategies to enhance bank credit access among farmers.

Human capital formation

A word cloud of verbatim responses coded under the top theme of human capital formation was extracted (Figure 2).

Three main sub-themes emerged from the word cloud, and they included business, knowledge and skills (Figure 2). The sub-themes are discussed in detail subsequently.

The word "business" was mentioned by two out of the four commercial banks that perceived human capital formation as a key strategy for enhancing bank credit access among farmers in Zimbabwe (Figure 3). The word "business" was also mentioned for five times by the commercial banks, and emerged as the most discussed sub-theme under the human capital formation theme. The bank credit officers implored local farmers to improve the business element of their farming enterprises through pursuing different ways of improving their knowledge of business. B02 specifically said, "Invest in business management skills and treat farming as a business." B02 also highlighted that if the farmer is lacking in business management skills, employing someone on the ground who is skilled and experienced in farm business management would help to enhance access to bank



Figure 4. Word tree output for the sub-theme "knowledge". Source: Primary Data (2019).

Text Search Query - Results Preview



Figure 5. Word tree output for the theme "skills". Source: Primary Data (2019).

credit.

The sub-theme "knowledge" was discussed by three out of the four banks whose responses were coded under human capital formation for three times (Figure 4). Hence, knowledge emerged as the second most discussed sub-theme under the human capital formation theme. Besides being encouraged to improve their knowledge of business, farmers were also obligated to gain knowledge in other crucial areas. B02 stated that, "Farmers must gain knowledge in areas like soil type and marketing that enhance their performance and loan repayment capacity." CB1 also said, "Farmers must invest in short courses and attend field days to gain knowledge."

The word "skills" was also mentioned by two commercial banks for three times in their discussion of human capital formation as a catalyst for bank credit access among farmers in Zimbabwe (Figure 5). Besides making investments in business management skills as already discussed, farmers were also implored to specifically acquire financial accounting and record keeping skills, as well as data management skills. B02 stated that, "Data management skills in production and performance history, planning and record keeping should be sought." By so doing, farmers in Zimbabwe could enhance their chances of accessing bank credit finance according to the bankers. The need to develop a farm's human capital base as revealed by this study is purported to directly influence agricultural productivity by affecting the way in which inputs are used and combined by farmers (David and Lopez, 2001), which also ultimately enhances access to bank credit as shown by this study. Musiime and Atuha (2011)'s study in Uganda also established better access to credit by trained farmers who had acquired knowledge, which enabled them to realize higher output and profits. In South Sudan, Ebaidalla and Abdalla (2015) also discovered that farmers who participated in capacity building programs in agricultural production and business management had higher chances of accessing credit from formal financial institutions. Odu et al. (2010)'s study in Nigeria explained that experience and skills of farming were advantageous to securing formal credit facilities because they acted as a guarantee that the agricultural project would mostly succeed.

Physical capital formation

A word cloud was also extracted from the verbatim responses of bank credit officers who had prescribed physical capital formation as a strategy for enhancing bank credit access among farmers in Zimbabwe (Figure 6).

The major sub-theme that emerged among bank credit officers who stated physical capital formation as a strategy for enhancing bank credit access among farmers was "invest" (Figure 7).

The word "invest" was mentioned by two out of the four banks that stated physical capital formation as a catalyst for credit access among farmers for four times (Figure 7). Farmers were implored to invest in off-farm collateral assets, post-harvest handling equipment and techniques, productive assets that could be sweated, and value addition skills and equipment. Haley (1991) supports the accumulation of physical capital assets on a farm, which instigates the employment of capital-intensive techniques in the agricultural sector by declining the use of labor-intensive techniques. According to Bisaliah (2012), this is known as capital deepening (giving each worker a little



Figure 6. Word cloud of bank credit officers' verbatim responses coded under the physical capital formation theme. Source: Primary Data (2019).

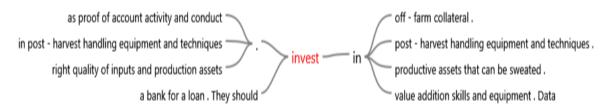


Figure 7. Word tree output for the sub-theme "invest". Source: Primary Data (2019).

more capital to work with), which positively affects agricultural productivity and output growth. B07 actually stated that, "Irrigation facilities enhance access to bank credit. Alternative power solutions like solar equipment and windmills help the farmer to manage the disruption of agricultural activities in light of utility supply challenges being faced by the country." All these physical capital formation activities were prescribed as strategies that could be adopted for enhancing the farmers' chances of accessing bank credit in Zimbabwe. In-depth interviews with the bank credit officers also revealed that besides productive farm assets, farmers were also encouraged to invest in properties off the farm (Figure 7). This was recommended to enable the farmers to circumvent the land tenure security issues presented by the lack of freehold land ownership among local farmers. Farmers were also implored to seize opportunities along the agricultural value chain, especially value addition, which was recognized as key in the augmentation of a farm's income portfolio and loan repayment capacity (Figure 7). Mayowa (2015)'s study equally established that in the absence of legal title to land, farmers in peri-urban South African farms could access bank credit from the Land Bank making use of their farm assets that enhanced their productivity and repayment ability, and also fulfilled the collateral role.

Besides adding to the monetary value of the farmers' primary products, bank credit officers argued that value addition could also protect farmers from the risk of loss of perishable products, especially during market gluts, low demand and low market price periods. Moreover, the bankers indicated that offering value addition services to peer farmers could also diversify the income portfolio of a farming enterprise, thereby enhancing its chances of access to more bank credit to enable it to pursue its growth objectives. Investments in post-harvest handling technologies were also believed to help in cushioning farmers from losses during low demand periods, which would help them to meet strict product specifications especially by contractors who produce for the



Figure 8. Word cloud of bank credit officers' verbatim responses coded under the social capital formation theme. Source: Primary Data (2019).

farmers' access to bank credit Property rights should be addressed farmers for sharing ideas and Text Search Query - Results Preview build relationships with banks . Having an Increased activity peer farmers . Gain

Figure 9. Word tree output for the sub-theme "build" Source: Primary Data (2019).

international market, and in augmenting their income portfolios if they offer storage services to peer farmers.

Investments in alternative power solutions like solar and wind were also identified as key for enhancing bank credit access among farmers by bank credit officers at current moment in Zimbabwe. recommended in light of the liquidity challenges that the country is facing in importing electrical power from other countries, and its constrained capacity to produce locally due to infrastructural issues and water level challenges at its key hydro-electric and thermal power stations in Kariba and Hwange, respectively. Irrigation infrastructure investments by farmers were also identified as key for escaping from the rainfall fluctuation risks that repel lenders as confirmed by various studies (Chakoma and Chummun, 2019; Ruete, 2015; Vitoria et al., 2012). The availability of irrigation facilities on the farm could also guarantee credit access by individual farmers because all the banks under study indicated that they did not fund dryland farming as a policy. All these physical capital formation activities were perceived as key in improving local prospects of accessing farmers' indispensable bank credit in Zimbabwe. Also supporting the need for physical capital formation in farms, FAO (2012) declares that physical capital formation has a positive effect on the optimum use of natural resources, the adoption of advanced technology, the development of infrastructure for agricultural activities, thereby ensuring food security and making agriculture a profitable commercial activity, a quality that is attractive to lenders as established by this study. Farm assets were also identified by various studies as key determinants of bank credit access (Chandio et al., 2017; Enimu et al., 2018; Isaga, 2018).

Social capital formation

Social capital formation emerged as the third most important strategy for enhancing the local farmers' access to bank credit in Zimbabwe. Social capital formation was discussed by two bank credit officers for five times. A word cloud of the bank credit officers' verbatim responses coded under social capital formation was extracted (Figure 8).

Two major sub-themes emerged from discussions with bank credit officers who perceived social capital formation as an important strategy for enhancing bank credit access among farmers in Zimbabwe. These themes included build and organizations (Figure 8). The sub-theme "relationships" was left out because it was always used alongside the word build by the bank credit officers.

The sub-theme "build" was mentioned by two commercial bank credit officers for three times. Farmers were encouraged to build relationships with banks and peer farmers (Figure 9). According to B01, establishing a relationship with a banker could start from the account opening process, and maintaining a certain level of activity within the account. B01 specifically stated that,



Figure 10. Word tree output for the word organizations. Source: Primary Data (2019).

"Account activity within a farmer's bank account provides a record of transactions that will be visible to the banker. Account activity with other banks is also considered as proof of account activity and conduct." B02 similarly indicated that, "Having an account provides patterns of the farming enterprise's proceeds, which are a crucial set of information needed to make a lending decision." In addition, B02 implored farmers to build relationships with peer farmers to enable the sharing of ideas. According to Gómez-Limón et al. (2012), social relationships/networks may affect the economic sustainability of farmers through influencing their farming practices and their propensity to adopt new technologies from the information supplied through these networks, which ultimately enables them to learn new techniques, acquire know-how, obtain training from others, and in some cases obtain official assistance like finance to implement various practices. Several studies also link social networks to credit access (Kofarmata et al., 2016; Saqib et al., 2018). These results show that the emphasis of local commercial banks on social relationships and networks is on their ability to diffuse knowledge and skills among farmers, not necessarily on who they know to gain access to bank credit.

The word "organizations" was mentioned for three times by two commercial bank credit officers (Figure 10). B02 encouraged farmers to create farmer-based organizations that encourage networking and the sharing of ideas. Besides, farmers were encouraged to attend conferences and other activities created by other organizations to build social networks that are essential for enhancing farming knowledge. In Abdul-Jalil (2015)'s study, membership to a farmer-based organization positively and significantly impacted the amount of credit accessed by the farmers from formal credit sources. Farmers who also belonged to cooperatives could access credit better because of their higher productivity and risk sharing prospects in South Africa (Mayowa, 2015).

CONCLUSION AND RECOMMENDATIONS

Human and physical capital formation activities linked to investments in farm productive assets and personal development skills in agricultural production and business management emerged as the key prescriptions for enhancing bank credit among farmers in Zimbabwe

according to the commercial banks. Beyond investments in farm assets, the study also revealed that off-farm investments could assist farmers in solving the collateral problem induced by the lack of land ownership, thereby enhancing their chances of accessing bank credit. Moreover, the seizing of value chain opportunities by farmers in value addition and other post-harvest technologies could diversify the farmers' income portfolios and cushion them from various risks, thereby enhancing their credit access prospects. Business management skills in data management in areas of financial record keeping, budgeting and historical performance reporting were also prescribed by bankers as crucial catalysts of bank credit access among farmers in Zimbabwe. Social capital formation activities formed through building relationships with key stakeholders like the lenders themselves and peer farmers were also recognized as important for enhancing farmer access to bank credit. Farmer based organizations were also prescribed for farmers to share risk and provide a foundation for sharing knowledge.

In light of the earlier findings, the government should prioritize the addressing of land tenure security among farmers to ensure their sustainable access to bank credit. Agricultural extension services by the government in local farms should also be intensified to enhance farmer knowledge. Investments in farm productive assets should also be pursued by farmers to ensure that they enhance their production capacity, incomes and their repayment capacity in order to attract lenders. Farmers are also challenged to diversify into value addition activities off the farm in order to fulfil collateral requirements by banks for titled immovable property. Investments in alternative power solutions by farmers in solar and wind may also shield them from losses induced by disruptions in power utilities in the country, especially electricity and water. Personal development initiatives to acquire agricultural production and business management skills should also be prioritized by farmers in order to enhance their access to bank credit. Farmers should also create farmer-based organizations like cooperatives that can boost their production capacity potential, and also minimize their moral hazard risks in the eyes of the lenders to be able to qualify for alternative financing schemes like group lending. The bankers themselves are also implored to pursue such financing models given the collateral problem faced by farmers in Zimbabwe in the absence of

the preferred freehold tenure. The participation of farmers in development programs by government, private and donor communities may also enhance their knowledge in agricultural production and farm business management, which would all help to enhance their access to bank credit. Banks are similarly encouraged to devise farmer capacitation programs in order to educate them on what they expect for a potential borrower to be eligible for bank credit.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

REFERENCES

- Abbadi SM, Karsh SMA (2013). Methods of evaluating credit risk used by commercial banks.pdf. International Research Journal of Finance and Economics 1(11):146-159.
- Abdul-Jalil MA (2015). Determinants of access to credit and its impact on household food security in Karaga District of the norther region of Ghana. http://dspace.knust.edu.gh/bitstream/123456789/8049/1/ma-Az Abdul-Jalil.pdf
- Adams D (2015). Determinants of microcredit access and farmers' investment in small scale peri-urban agriculture: A case study of Dzorwulu vegetable farmers. http://ugspace.ug.edu.gh
- Bisaliah S (2012). Investment in agriculture: cross country evidences, experiences and business models. http://www.fao.org/fileadmin/templates/tci/pdf/OtherReports/CrossCountryEvidence_investment_in_agriculture.pdf
- Burrel G, Morgan G (1979). Sociological paradigms and organisational analysis (1st edition). Heinemann Educational Books. http://www.ashgate.com
- Chakoma I, Chummun BZ (2019). Forage seed value chain analysis in a subhumid region of Zimbabwe: Perspectives of smallholder producers. African Journal of Range and Forage Science 36(2):95-104. https://doi.org/10.2989/10220119.2018.1546229
- Chandio AA, Jiang Y, Wei F, Rehman A, Liu D (2017). Famers' access to credit: Does collateral matter or cash flow matter?—Evidence from Sindh, Pakistan. Cogent Economics and Finance 5(1):1369383. https://doi.org/10.1080/23322039.2017.1369383.
- Cresswell J W (2014). Research design: qualitative, quantitative, and mixed methods approaches (4th edition). Sage.
- David PA, Lopez JGG (2001). Knowledge, capabilities and human capital formation in economic growth. In the New Zealand Treasury. https://doi.org/DOI:
- Ebaidalla ME, Abdalla ME (2015). Farmer access to formal credit institutions in Kassala, East Sudan: Determinants and possible ways forward. ERF Policy Brief 3:1-5.
- 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
- Enimu S, Bassey JI, Eyo EO (2018). Determinants of borrowing capacity of smallholder farmers in Cross River State, Nigeria. Journal of Business and Financial Affairs 7:1. https://doi.org/10.4172/2167-0234.1000311.
- 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
- FAO [Food and Agriculture Organisation] (2012). Capital formation in agriculture in Bangladesh.
- Feschijan D (2008). Analysis of the creditworhiness of bank loan applicants. Economics and Organization 5(3):273-280. http://facta.junis.ni.ac.rs/eao/eao200803/eao200803-10.pdf

- Garvelink WJ (2012). Smallholder agriculture: A critical factor in poverty reduction and food security in Africa. https://www.csis.org/analysis/smallholder-agriculture-critical-factor-poverty-reduction-and-food-security-africa
- Gibbs GR (2018). Analysing qualitative data. Sage.
- Gómez-Limón JA, Vera-Toscano E, Garrido-Fernández FE (2012). Farmers' contribution to agricultural social capital: Evidence from Southern Spain. www.iesa.csic.es
- Government of Zimbabwe (2017). http://www.veritaszim.net/sites/veritas_d/files/Movable Property Act
- Gutsa F (2010). Economics of fertilizer utilization in small-scale farming systems and appropriate role for policy: Issue August [University of Zimbabwe]. https://ageconsearch.umn.edu/bitstream/157509/2/Gutsa Freeman Thesis.pdf
- Haley S L (1991). Capital accumulation and the growth of aggregate agricultural production. Agricultural Economics 6(2):129-157. https://doi.org/10.1016/0169-5150(91)90021-C
- ljioma JC, Osondu CK (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
- Inter Ministerial Taskforce (IMT) Technical Committee (2016). Ministry of Lands and Rural Resettlement. Bankers Conference on the 99 Year Lease. http://www.justice.gov.zw/imt/wp-content/uploads/2017/10/99-year-lease-bankers-conference-report-molrr-8-april-2016.pdf
- Isaga N (2018). Access to bank credit by smallholder farmers in Tanzania: A case study. Afrika Focus 31(1):241-256. https://doi.org/10.21825/af.v31i1.9048
- Jakušonoka I, Barakauska L (2016). Development and usage of scoring systems in giving mortgages by commercial banks of Latvia. Science and Studies of Accounting and Finance: Problems and Perspectives 10(1):55-64. https://doi.org/10.15544/ssaf.2016.06
- Kofarmata YI, Applanaidu SD, Hassan S (2016). Examination of the determinants of credit constraints in the rural agricultural credit market of Nigeria. Research Journal of Applied Sciences 11(5):235-239.
- Korir GK (2013). Factors affecting access to credit by the small business producer groups in Trans-Nzoia county. University of Nairobi.
 - http://erepository.uonbi.ac.ke/bitstream/handle/11295/94673/Korir Gideon Kosgei_Factors affecting access to credit by the Small business producer groups in Transnzoia.pdf?sequence=1&isAllowed=y
- Masiyandima N, Chigumira G, Bara A (2011). Sustainable financing options for agriculture in Zimbabwe (ZWPS 02/10, Issue March).
- Mayowa BT (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&isAllowed=y
- Ministry of Agriculture Zimbabwe (2017). Agriculture in Zimbabwe. http://www.moa.gov.zw/index.php/agriculture-in-zimbabwe/
- 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
- Musiime SB, Atuha LH (2011). A guide for small holder farmers on saving, accessing credit and effectively managing money for improved livelihoods. What you need to know to effectively manage money matters. In Agri-Profocus Uganda. https://www.fsnnetwork.org/sites/default/files/a_guide_for_small_hold er_farmers_on_saving_accessing_credit_and_effectively_managing_money_for_improved_livelihoods.pdf
- Mukasa AN, Simpasa AM, Salami AO (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
- Newton L (2000). Trust and virtue in banking: The assessment of borrowers by bank management at the turn of the twentieth century.

- Financial History Review 7(2):177-199.
- Njogu GK, 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.
 - http://www.iajournals.org/articles/iajef_v3_i1_159_174.pdf
- 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. https://ageconsearch.umn.edu/bitstream/206865/2/Odu.pdf
- Otieno M (2013). The effect of the lending policies on the levels of nonperforming 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
- Owusu-Dankwa I, Badu GP (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. www.novelpublications.com
- RBZ (2006). https://www.rbz.co.zw/RiskManagementGuideline2006.pdf
 - https://www.rbz.co.zw/documents/BLSS/BANK%20SUPERVISION/Publications%20&%20Research/Publications/Collateral%20Registry%20.pdf
- Reserve Bank of Zimbabwe (RBZ) (2013). Operationalising a Collateral Registry in Zimbabwe. Available at: https://www.rbz.co.zw/documents/credit_registry/CollateralRegistryPamplet.pdf (Accessed: 9 October 2018).
- Rouse C (1989). Bankers lending techniques. London Chartered Institute of Bankers.
- Ruete M (2015). Financing for agriculture: How to boost opportunities in developing countries investment in agriculture Policy Brief #3. pp. 1-13.
- Rukuni M (2012). Why Zimbabwe needs to maintain a multi-form land tenure system. pp.1-5. http://www.swradioafrica.com/Documents/Sokwanele Why Zim needs to maintain a multi-form land tenure system.pdf
- Safi R, Lin Z (2014). Using non-financial data to assess the creditworthiness of businesses in online trade. PACIS, pp. 1-14. http://aisel.aisnet.org/pacis2014/206
- Saqib SE, Kuwornu JKM, Panezia S, Ali U (2018). Factors determining subsistence farmers' access to agricultural credit in flood-prone areas of Pakistan. Kasetsart Journal of Social Sciences 39(2):262-268. https://doi.org/10.1016/j.kjss.2017.06.001
- Saunders M, Lewis P, Thornhill A (2016). Research methods for business students (7th edition).
- Sebatta C, Wamulume M, Mwansakilwa C (2014). Determinants of smallholder farmers' access to agricultural finance in Zambia. Journal of Agricultural Science 6:11. 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. St Mary's University.
- Shonhe T (2018). The political economy of agricultural commercialization in Zimbabwe (Issue April). https://opendocs.ids.ac.uk/opendocs/bitstream/handle/123456789/13 817/WP_12_Layout_FINAL
 - %28003%29.pdf?sequence=1&isAllowed=y
- Swinkels R, Chipunza P (2018). Trends in poverty, urbanization and agricultural productivity in Zimbabwe Preliminary findings. https://www.cfuzim.org/~cfuzimb/images/wburban.pdf

- Terrell SR (2012). Mixed-methods research methodologies. Qualitative Report 17(1):254. http://waikato.summon.serialssolutions.com/link/0/eLvHCXMwQywzh 5UHienpRBQHoPF_XQvw7jHESQhIRb2bKIOcm2uls4curMiMT8nJiT cytQBWMhbAVoApn_Psc_fFJrgGrOCR2DBVYtYFACkoKYI
- 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 MPM, Karmana MH, Oude Lansink AGJM (2017). Access to finance from different finance provider types: Farmer knowledge of the requirements. PLoS ONE 12(9):e0179285. https://doi.org/10.1371/journal.pone.0179285
- Zech L, Pederson G (2003). Predictors of farm performance and repayment ability as factors for use in risk-rating models. Agricultural Finance Review 63(1):41-54. https://doi.org/10.1108/00214990380001140