THEMATIC AREA: GENDER AND YOUTH

Developing sustained tools for managing financial constraints among women and youth-led agro-based SMEs

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About IAPRI

Established in 2011, the Indaba Agricultural Policy Research Institute (IAPRI) is Zambia's first indigenous policy research institute dedicated to analyzing agricultural and environmental policies. IAPRI is a non-profit company limited by guarantee and collaboratively works with public and private stakeholders. The institute's vision is to be the center of excellence for agricultural policy research and outreach in Zambia."

IAPRI's mandate is to utilize empirical evidence to advise and guide the Government of Zambia and other stakeholders on agricultural investments and policies. The overarching goal of IAPRI's policy analysis and outreach efforts is to identify policies and investments in the agricultural sector that can effectively stimulate inclusive economic growth and poverty reduction. This is achieved through three core operational activities:

- Producing authentic, impartial, and high-quality research on agricultural food and natural policy issues in Zambia and the wider southern region
- Integrating research findings into national, regional, and international programs and policy strategies to promote sustainable agricultural growth and alleviate hunger and poverty in Zambia and
- Supporting the development and strengthening of capacity for policy research analysis and outreach of public and private institutions in Zambia

Foreword

Access to credit remains critical to small and medium enterprise's growth and private sector employment creation. However, access to credit, let alone commercial cash loans, remains low. SMEs' major challenges in accessing credit include unfavourable financial repayment terms such as high-interest rates and lack of sufficient collateral, low financial literacy, inappropriately designed financial products, and a weak formal financial service providers' appreciation of needs. To flourish and grow, SMEs need integrated support in addressing these constraints. Despite having several financial institutional tools, most of these have not performed as expected in easing financial distress among SMEs.

Therefore, IAPRI designed this study to re-examine such models in the context of women and youth-led agro-based SMEs and refine them so that they are suited to mitigate the business's financial distress.

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Executive Director, IAPRI

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List of Acronyms

IAPRI	Indaba Agricultural Policy Research Institute
CBZ	Cotton Board of Zambia
FSD	Financial Sector Deepening
ZATP	Zambia Agribusiness Trade Project
ZAEDP	Zambia Aquaculture Enterprise Development Project
SME	Small Medium Enterprise
ZDA	Zambia Development Agency
PACRA	Patents and Companies Registration Agency
ZMW	Zambian Kwacha

Table of contents

1. Introduction

Access to credit remains critical to Small and Medium Enterprise's (SMEs) growth and private sector employment creation. Accessing finances promotes the business's establishment and development, covers day-to-day expenses, and is critical in recruiting additional staff. Ultimately, the growth of SMEs benefits the economy in general by accelerating economic growth and intensifying competition. However, access to credit, let alone commercial cash loans, remains low, especially among female SMEs. SMEs' major challenges in accessing credit include unfavourable financial repayment terms such as high-interest rates and lack of sufficient collateral, low financial literacy, inappropriately designed financial products, and a weak formal financial service providers' appreciation of needs. In addition, some women-led SMEs perceive that banks do not give their businesses equal opportunities compared to male-led SMEs (FSD-Zambia, 2017). Therefore, SMEs need integrated support in addressing these constraints for them to flourish and grow.

Several institutional tools have been designed to mitigate some of the financial bottlenecks, including warehouse receipts, contract farming, value-chain financing, credit guarantee schemes, group lending, vehicle and asset financing, and insurance. However, most of these tools have not performed as expected in easing financial distress among women and youth-led SMEs. For women and youth-led SMEs to excel and grow, the available financial options need to be re-evaluated, identify the associated challenges and solutions, and design appropriate approaches to mitigate the business's financial distress.

The Indaba Agricultural Policy Research Institute (IAPRI) recognizes the critical role that access to finances plays in SMEs' growth. Equally, the Zambian government acknowledges the importance of SMEs, as evidenced by the creation of the new Ministry of SMEs. Therefore, in 2021, IAPRI initiated this study to profile the lessons learned from existing institutional financial models and modify them by interacting with various stakeholders and agro-based SMEs. In this monogram, we document different institutional models. First, a short narrative about each model is given, followed by what opportunities exist in a particular model, the potential challenges likely to encounter when implementing it and what conditions will enable the tool to address the financial difficulties. This report contributes to the discourse of improving the financial situation among women and youth-led SMEs.

2. Who is an SME in Zambia?

The SMEs sector accounts for about 97 percent of all businesses in Zambia, with 9 out of every 10 SMEs operating in the informal sector (FSD-Zambia, 2017). According to the Zambia Development Agency (ZDA), an SME is defined as any business enterprise registered with the Patents and Companies Registration Agency (PACRA) with the following characteristics:

Category	Micro-Enterprise	Small-Enterprise	Medium-Enterprise	Informal enterprise
Total Investment (equipment)-ZMW	1-80,000	80,001-200,000	200,001-500,000	1-50,000
Annual Sales-ZMW Turnover	1-150,000	150,001-300,000	300,001-800,000	
Number of employees	1 to 10	11-50	51-100	Less than 10

According to the Ministry of Commerce and Trade (2008), *a small enterprise* is defined as any business

a) whose total investment, excluding land and buildings,
   i) In case of manufacturing and processing enterprises, is between ZMW80 thousand and ZMW 200 thousand kwacha in plant and machinery
   ii) Is up to one ZMW150 thousand, for trading and service providing enterprise
b) Whose annual turnover is between ZMW150 thousand and ZMW300 hundred thousand
c) Employing between 11 and 50 persons.

A medium enterprise -is defined as any business larger than a small enterprise and registered with the Registrar of companies;

a) Whose total investment, excluding land and building;
   i) In case of manufacturing and processing enterprises, is between ZMW200 Hundred thousand and ZMW500 Hundred thousand in plant and machinery.
   ii) In case of trading and service providing is between ZMW151 thousand and ZMW300 thousand.
b) Whose turnover is between ZMW300 Hundred thousand and ZMW800 Hundred thousand
c) Employing between 51 and 100 persons.

Informal Enterprise

An informal enterprise is any business enterprise not registered with the Registrar of Companies;

i) Whose total investments excluding Land and Building is up to ZMW50 thousand Kwacha.
ii) Employing less than 10 persons

3. Approach

An initial stakeholder meeting was conducted as a first step. Ten participants attended this inception meeting-One from Cotton Board of Zambia (CBZ), two from Musika, one from Financial Sector Deepening (FSD) Zambia, one from Zambia Agribusiness Trade Project (ZATP), one from Zambia Aquaculture Enterprise Development Project (ZAEDP) and four from Indaba Agricultural Policy Research Institute (IAPRI). Engagement with these stakeholders helped identify the different forms of financial services provided to SMEs and the potential challenges they faced. This was followed by in-depth interviews using a qualitative approach with identified women and youth-led SMEs to understand better the models they used to ease their financial situation. A total of 10 SMEs were interviewed, of which five were youth-led. A set of guiding questions (Appendix 1) was used with follow up questions based on the respondent's answers.

The SMEs that were interviewed were categorized based on their operations. Five of the SMEs interviewed were engaged in agro dealerships, 2 in aquaculture, 2 in livestock, and 1 in horticulture. Of the 10 interviewed SMEs, 8 were sole proprietors, and 2 were cooperatives. The employment level depended on the size of the business and business turnover. For example, those engaged in horticulture had a higher annual turnover (ZMW 2 million) and, on average, employed more than 25 workers.

Finally, together with financial service providers and SMEs, a meeting was held to share qualitative research results, refine the tools, and develop the best-fit tools for managing financial constraints.

4. Best fit financial tools

This section presents a short narrative about each financial model, what opportunities exist, the potential challenges to implement it, and what conditions will enable the tool to address the financial difficulties.

4.1. Contract farming

About contract farming: Contract farming is an arrangement that involves the production of the agricultural commodity based on an agreement between a pre-financier and a producer where the pre-financier supplies inputs on credit and guarantees a market for the produce, while the producer agrees to supply the commodity at the agreed quality and quantity. Contract farming is more prominent in high-value commodities such as cotton, soybeans, and sugar cane production in Zambia. Poultry production is another commodity taking center stage in contract farming. Box 1 gives an example of what is obtained in the cotton industry.

Opportunities: Contract farming can potentially address the financial challenges agro-based SMEs face in Zambia. This arrangement can assist in integrating SMEs into modern agricultural value chains, providing them with inputs, technical assistance, and an assured market. It also helps to overcome market access constraints for both input and output (Ruml and Qaim, 2021). In addition, it can make agriculture remunerative since contracts are associated with credit facilities, and output prices are fixed in advance (Bourque, 2011). Contract farming appears to be the main road towards making agriculture more market-oriented, as it provides opportunities for shared risks between the farmer and the pre-financiers.

Challenges associated with contract farming as a potential financial tool

a) Information asymmetry: One of the challenges associated with this model is the information asymmetry between the pre-financiers and producers, especially if the commodity they are dealing in is an exportable commodity. Usually, pre-financiers tend to be more knowledgeable about the market than the producers (See box 1). In addition, sometimes written contracts are not made available to farmers, and the agreements do not include the rights of farmers; instead only protect the rights of buyers, and farmers only have to oblige.
b) Contracts are not honoured in full by pre-financiers and producers. For example, input distribution to producers is sometimes not adequate and of low quality or not delivered on time. The pre-financier alone determines the quality of the products, which may be manipulated to drive down the price and exploit the producer. All these happen because parties, especially the farmers, do not understand all the contract details, which leads to substantial mistrust. Also, farmers sometimes incur losses in contract farming in instances of early contract termination by the contractor when the farmer had made long term investments tied to contract arrangement.
c) Ideally, in contract farming, prices are agreed in advance between the pre-financier and the producer. However, the contract between producers and pre-financiers, for example, in cotton farming, is not complete because the contract does not include the price.
d) Side trading of the commodity by either the producer or pre-financiers is usually common when more than one pre-financier engages in contract farming with producers. This typically happens when weak regulations govern contract farming. In a study on contract farming in the cotton sector in Zambia and Zimbabwe, Kabwe et al. (2018) found side trading as a major challenge in contract farming arrangements. Changes in producer price, increasing competition between pre-financiers, and limited regulatory intervention drive side trading in contract farming.
e) Due to asset endowment between men and women, the financial tool may not be inclusive enough for women because they are less endowed with assets, which can affect their full participation in contract farming. Women have limited direct involvement in contract farming, constrained by limited access to land and control over the allocation of labour and cash resources. In instances where there is land redistribution to accommodate contract farming, women are at risk of losing customary land and also excluded in favour of men. This was evident in Malawi where contract farming led to the exclusion of more women in favour of men because of the formalisation of the matrilineal customary land tenure system, which provided women with better tenure security (Adams et al., 2019). Therefore, already well to do farmers are the ones that benefit the most from contract

farming. This was also evident in South Africa where smallholder farmers who were marginalized with limited access to assets remained excluded from contract farming (Freguin-Gresh et al., 2012).

BOX 1. Example of contract farming -Cotton production in Zambia

- Ginning companies use contract farming in the form of an out-grower scheme to engage farmers to grow cotton.
- Farmers get inputs (seed, and chemical) on credit that are paid for when selling seed cotton, which addresses the financial challenges that producers have.
- Almost all the farmers in the cotton sector are under contract farming and are attached to a particular ginning company.
- Though farmers get inputs on credit and the market is guaranteed, contract farming under the cotton industry has challenges and these are:
- During the 15 years of operations, the pre-planting price has not been offered in contract farming under cotton production. This was cited as a challenge because when farmers enter into a contract with ginning companies to grow cotton, there are supposed to know a pre-planting price to complete a contract which is one key of determining the profitability of the venture.
- Considering that the price for seed cotton is set based on the price prevailing at the international market, the sector must develop and use a price mechanism. However, the cotton sector has no price-setting mechanism. Without this, ginning companies are perceived to underprice the farmers' price for seed cotton. This has resulted in mistrust between ginning companies and farmers on price issues, leading to some farmers leaving the cotton sector to grow other competing crops such as soybeans or sunflower, among others or the remaining cotton farmers reducing the area under cotton.
- The majority of cotton farmers, mainly women and youth, work as individuals. Very few are represented by the Zambia National Farmers Union/Cotton Association of Zambia. Therefore, they lack that voice of representation.
- The extension services provided is not adequate. Usually, ginning companies just give the seed and chemical to their farmers and do not provide sufficient extension services on cotton production.
- **Though this tool can help address financial challenges, it is not a viable tool for new entrants if extension services are not provided.**

Conditions that will enable contract farming work

Finding solutions to the challenges identified above would enable contract farming to provide sustained financial solutions and create employment opportunities for the youth and women in Zambia. The following are key conditions identified.

a) The market for the product should be available to ensure the profitability of the venture
b) Creating price-setting mechanisms with agreed parameters is important to enhance trust and efficiency between the producers and pre-financiers. Moreover, by doing so, this approach will increase productivity and income for both parties apart from SMEs accessing finances.
c) Strengthening producer associations is key in ensuring that producers participate in contract farming. For example, when producers are strengthened with market information, they can knowledgeably engage with pre-financiers on various issues e.g.

productivity enhancement issues and price issues, which is likely to offer a win-win solution to all actors along the value chain.

d) Tighten the regulations that govern the pre-financiers and producers to make sure all parties honour contracts to the fore. For example, in the cotton sector, if ginning companies are required to provide adequate, and quality inputs (seed and chemicals) and farmers are required to grow and supply seed cotton to the pre-financiers, both parties need to honour that contractual agreement.
e) Contract duration should also be honoured if producers are to make meaningful long term investments.
f) Setting up a well-defined and accessible dispute resolution mechanism that protects both the producer and the contractor interests. This is important because commercial arbitration and mediation centres establishments in many countries rarely offer rapid and cheap hands-on services directed to producers (Bourque, 2011).
g) Providing technical support to the producers so that they can maximize the benefits obtained in participation in the contract farming. This is important because if not well managed, contract farming can lead to negative profits. In Ghana, for example, Ragasa et al. (2018) found that contract farming in maize led to negative profits because yield increases did not correspond to higher input requirements and the cost of capital under the schemes.
h) Promoting gender equity in the implementation of this financial tool to enhance women and youth participation in contract farming. The most appropriate way to protect women's interests is to use the contract itself to solve some of the known obstacles hindering women participation. The first step requires women inclusion in contracts and then the legal framework provided by domestic legislation can be used to support contracts becoming a solution to these challenges. Better designed contracts can protect the interests of female farmers and help to enable equity when bargaining overall contract arrangements. This can be done by introducing innovative and creative terms or contractual mechanisms that promote women's inclusion deliberately

4.2. Value chain financing

About value chain financing: Value chain finance refers to supporting participants by tailoring services and products to one or more points in a value chain to reduce the risk and cost of financing and increase the efficiency of the value chain as a whole.

Opportunities of value chain financing: Value chain finance provides opportunities to increase financing for SMEs, consolidate linkages among value chain participants, and improve efficiency and finance repayments. It can advance the quality and efficiency of financing SMEs by (i) identifying the financing required to boost the chain in which SMEs are engaged; (ii) designing the financing required to suit the specific needs of value chain actors; (iii) Using direct discounting of loan payments at the time of product sale to reduce the financial transaction costs; and (iv) mitigating risks to the value chain and its partners by using value chain linkages and knowledge (Soundarrajan and Vivek, 2015). Apart from providing financial resources to the SMEs, value chain financing can increase the profits of SMEs' profits and increase the number of clients for the financial services providers. Furthermore, value chain financing enhances financial flows through various links as well as in-house insurance to mitigate risks and uncertainty (Fakudze and Machethe, 2015).

Challenges associated with value chain financing as a potential financial tool

a) Start-ups SMEs using this form of finance tend to be challenging because businesses at this stage are not well established and are not aware of the market they are entering. This brings more challenges because value chain financing depends on the value chain structure of a business being well established and having enough knowledge about that particular market. This tends to be lacking among new entrants. An example of how value chain financing can be inefficient is in the case of aquaculture fish farming start-ups. The fingerling stage of fish farming is very crucial in order to have quality fish production. If a start-up were unaware of the need for fish farming, this would affect the production line of how the fish is produced and thus makes it difficult for the use of value chain financing.

b) Inadequate policies and procedures in terms of the smallholder farmers' credit vetting have constrained value chain financing in Zambia.

c) Another challenge includes the high interest rates charged by commercial banks, making value chain financing tools not attractive to SMEs.

Box 2. Example of value chain financing-Zambia Aquaculture Enterprise Development Project (ZAEDP)

The ZAEDP is a project under the Ministry of Fisheries and Livestock funded by AfDB. It aims to stimulate a viable aquaculture sub-sector in Zambia to promote economic diversification, food security, and sustainable employment generation. The project provides loans to players along the value chain. The project is in all 10 provinces. Loans are given at 12 percent interest rate per annum with a maximum of 4 years repayment period.

The ZAEDP has two financing models.

- Microfinance: This model does not require one to have collateral which one of a key challenge faced by players along the value chain.
- Open finance: This financing option is open to anyone doing business in the aquaculture value chain. One has to prepare a business plan and the loan has to be backed by collateral.

This financing mechanism faced the following challenges f

- Many applicants could not develop business plans as such ZAEDP created a template for a business plan which prospective SMEs could use to apply for the loan.
- In some cases, cooperatives that wanted financing had some members who wanted to be free riders. However, once the free riders were identified, they did not benefit from the loan.
- Because the money is disbursed at once to all beneficiaries, the demand for inputs such as fingerlings was high, which created a shortage. This was resolved by disbursing money to beneficiaries at different times to lower shortages of fingerlings on the market
- When disbursing the loan money, ZAEDP does not pay the beneficiary the money but pays the suppliers for the needed inputs for fear that beneficiaries would use the funds for other activities instead of using its intended purpose. The project does not give cash for procuring materials. Pay directly to the suppliers of materials. The cash they pay to the SMEs is just for operations.
- Because it takes long to assess and approve the application, the cost of inputs especially went up, reducing the loan value in real terms. The high inputs cost was meant by farmers adding their own funds or even varying the loan.

Conditions that will enable value chain financing work

a) For this financial tool to work, key stakeholders along the value chain should be identified (value chain mapping) and identify the gaps where financial resources should be directed.
b) At this stage, the financial tool should be targeted towards viable established SMEs rather than a primary option for start-ups. New entrants can only benefit if they are well organized into cooperatives and carried along the value chain for sustainable agricultural transformation. However, new entrants can be supported through this financial tool provided that they have access to complementary services such as capacity building and extension services.
c) The government should provide necessary support services to attract more investments along the value chain by creating an enabling policy and regulatory environment. The policies and regulations will lower the transaction costs and in turn, facilitate the smooth flow of finances along the value chain as well as promote value addition.
d) Women and youths should be equipped with necessary skills if they are venturing into a new value chain

4.3. Credit guarantee

About value credit guarantee: Credit guarantee schemes entail sharing of the risk of loan default between the financier and a guarantee fund that is usually funded by donors or governments. Credit guarantee schemes provide collateral in form of compensation for uncertain loan repayments. The guarantee ratio varies though the ratio is 80-20 with the guaranteeing agency taking up 80% (Samujh and Twiname, and Reutemann 2012). In upper-middle income countries, this is usually 65%, and it is 66% for low-income countries. The best practice is to cover the principle amount, and this is expected to offer enough incentive for banks to monitor their clients (see Varangis and Mazen 2017).

Challenges associated with credit guarantee as a potential financial tool

- Lack of awareness amongst SMEs about credit guarantee schemes being available and some women and youth SMEs are a sceptical about the tool due to the lack of information.
- SMEs who are dependent on private entity guarantors finds it difficult to use this tool in the event that the private organisation is no longer able to act as guarantor.
- Credit guarantee schemes are also confronted with some institutional complexities such as excessive interest rates, outrageous collateral obligation from financial institutions and strenuous eligibility benchmarks for beneficiaries
- Lack of strong Cooperation and risk-sharing between credit guarantee schemes and the engaged banks, including ineffective credit assessments that could increase administrative costs and bring risks to the scheme;

- Strict conditions and requirements for SMEs wanting to acquire a guaranteed loan. The conditions to hedging guarantee risks are almost the same as those of commercial banks, and are not tailored to suit the SMEs
- Improper fee calculation and coverage ratios are employed which creates problems in determining the magnitude of risk for both banks and SMEs
- Sophisticated procedure for credit guarantee schemes to implement guarantee commitments and this makes it difficult to conduct the guarantee process.
- How claims will be processed is an important consideration when designing a credit guarantee scheme. Time-consuming and costly claim procedures can decrease the transparency and credibility of the scheme and might discourage lenders from participating

BOX 3. Example of credit guarantee scheme-Musika

Musika has been implementing a program called Agri-business Accelerate Initiative to address the issues of financial constraints faced by Small and Medium Scale Enterprises (SMEs). This program is in form of credit guarantee scheme. The objectives of this program is

a) To increase commercial partnership between SMEs and Agri-business firms and other players in the sector.
b) Develop business cases for long term financial sustainability capacity building facilities for these SMEs.

- Musika enlisted SMEs in the country that were willing to be a part of initiative.
- Using business consultants, Musiks trained 531 SMEs from 2018 to date 2021 on issues of governance systems and also record keeping. The main thrust for this training was to improve the SMEs governance systems and record keeping arrangements as those are some of performance indicators financial institutions and corporate business look for when they want to get credit facilities or business deals respectively. According to Musika, 40 percent of these SMEs trained have so far been linked to corporate firms dealing in inputs or outputs and made business deals. While 26 percent got commercial loans through such linkages.
- In order to ensure sustainability, Musika recruited Small Medium Managers stationed in different regions in order to continue monitoring these SMEs.

Conditions that will enable this financing mechanism work:

- SMEs should be able to provide accounting information about their business to reduce the information asymmetry. Capacity building in governance is key.
- Graduating SMES from depending on private entities to be guarantors for SMES (this is the case of Musika where their scheme allows for them to act as a guarantor for its agro-based businesses). A possible solution would be for example in the case of Musika that has categorised SMEs in terms of tiers according to their capabilities, implementing a graduation programme based on their current categorised list of SMES that would prepare them to no longer rely on them as a guarantor is key.
- Agricultural credit guarantee schemes require a clear policy to avoid sudden capital loss in case of catastrophic events that could significantly destroy the quality of the

whole guarantee portfolio. These sudden catastrophes include droughts, floods, diseases, pests and occasional market-wide events. The rationale of the policy is to prevent sudden claim increases which could put the credit guarantee scheme under unnecessary pressure. Another solution to cushion such catastrophes is to provide incentives to link guarantees with insurance.

- Credit guarantees must work with a selected number of financial institution partners with defined and strategic interests in the agriculture sector. this guarantees high and continuous participation in credit guarantee schemes and also helps to accumulate expertise by financial institutions over time, which would lead to the expansion of agriculture lending without guarantees.

4.4. Venture capitalism

About venture capitalism: Venture capitalism is when a private equity investor provides capital to firms with high growth potential in exchange for an equity stake(Godasu and M, 2019). Venture capitalism includes funding to start-up ventures or offering support to small firms that desire to expand but are financially handicapped. Typically, Venture Capitalists seek firms with a strong management team, a large potential market and a unique product or service with a strong competitive advantage. It also looks for opportunities in industries that they have knowledge and the chance to own a large percentage of the firm to influence its direction.

Opportunities: SMEs are able to access financing that would have not been possible through bank loans or other methods. This is more beneficial to start-ups with limited operating history and high upfront cost. Another opportunity that this financing mechanism offers is expertise that investor provides and industry connections. Since venture capitalists are well connected in the business community, new business entrants can tap into their connections for tremendous benefits.

Challenges associated with venture capitalism as a potential financial tool

- Although venture capitalism is great way for SMES to access finance, the current state and pool of SMES is not ready to take on the contractual obligations that come with using venture capitalists.
- The method of accessing finance usually involves investors who would like a stake of equity of a business and as well as an investment strategy that would allow for them to have a return investment within a stated period and an exit strategy.
- Lack of industry policies and regulatory frameworks to safeguard business transactions.
- Limited research support for the venture capital sector, including poor record-keeping by SMEs.
- Limited reliable industry data to evaluate the investments made.

Conditions that will enable venture capitalism financing mechanism work

- Creating a competitive environment to attract venture capitalists. The public sector should strengthen the microeconomic environment to make it more accommodative and to further create a competitive environment for the venture capitalists. This will in turn attract a lot of foreign direct inflows into the industry, and create more exit avenues in strategic buyers (Agyeman, 2010). To solidify this, the government must design a clear cut policy and regulatory framework that benefits both the private and public sectors.
- There is a need for legal structures to help identify, assess, and mitigate risks associated with Venture capital business. This will help address the information gaps and improve information through proper accounting and auditing of firms.
  Further, a comprehensive problem-solving competency among business leaders is required to enhance their capability to adequately deal with risks facing their businesses

4.5. Grant matching

About grant matching: A matching grant is "a one-off, non-reimbursable transfer to project beneficiaries, for a specific purpose, based on the condition that the recipient makes a contribution for the same purpose." These grants can be used for a variety of activities, including technical assistance, investment in assets, or financing of working capital (Sberro-Kessler, 2019; IFAD, 2012). They may or may not be provided together with other financial services, such as loans, or linked to them. As one-off transfers, matching grants differ from permanent public transfers, such as subsidies for inputs and services (e.g. fertilizer or interest rate subsidies) or safety nets (e.g. cash transfers, food for work).
Within community-driven development projects, matching grants are typically used to finance social and economic infrastructure, productive assets and income-generating and livelihood-diversification activities by groups, and sometimes by individuals. Within rural and agricultural business development projects, they are used to develop agricultural value chains, promote innovation and technology, enhance access to extension and support services, and support farm diversification (IFAD, 2012).

Opportunities: One key opportunity of matching grants is that they are essentially free money as the beneficiaries do not need to repay back. This makes them appealing even for SMEs who are have no collateral. Where the intended beneficiaries operate under severe constraints (e.g., insufficient equity) or where the innovations have higher risks or unpredictable profits, matching grants can compensate for the lack of suitable term and investment finance and stimulate investment and business activity. Thus, matching grants can boost the economic activities of SMEs by relaxing their credit or risk constraints. Some grants offer hefty amounts of money, depending on the applicant's idea. Well-designed matching grants may help draw private investments and investors into growing or underserved markets by addressing specific barriers to market entry for certain targeted SMEs

Box 4. Matching Grant Financing Model -Zambia Agribusiness Trade Project (ZATP)

ZATP is the World Bank funded project. The Project is meant to create market linkages in agribusiness and promote firm growth. The Project is under the Ministry of Commence Trade and Industry. There are two institutional models used under the ZATP.

Productive Alliance in Zambia Model

- The Productive Alliance in Zambia model targets farmers that are well organized in groups. These could be in farmers associations, cooperatives and are legally registered to do business in Zambia. The approach used is that farmers through these groups are linked to markets using a commercial agreement. The beneficiary farmers and the group of buyers are brought together to agree on conditions of that relationships such as volumes to supply, on what price, quality standards and the consistency of supply. Basically the Project is marketed oriented and focus on the market and actively engage the private sector and also improve the capacity of the producers. The support offered to the beneficiary groups (producers) is by building capacity in terms of business development so that they understand how they should operate their cooperatives/associations as businesses.
- Then the Project has a financing tool which is a Matching Grant Financing where the beneficiary contributes about 30% and the Project contributes about 70% to come up with the sub project. The project can offer up to a value of US$3000 per household in the association/cooperative. The size of the grant will depend on the needs of that association and also the capacity to match the grant. The ratio that is used is 70:30. The project contributes 70 percent towards the sub project while the association contributes 30 percent towards the project. On the other hand if an association or a cooperative has assets, it can still include that as match. But with this arrangements, things change, the value of assets should cover 15 percent of the contribution and the other 15 percent should be in monetary terms.

- The Productive Alliance in Zambia model has a total of 93 beneficiaries and about 55 have access to credit. Most are in dairy sector and have applied for a grant to buy more animals in order to produce more milk, cooperatives in aquaculture sector that want to increase volume to supply on the market, cooperatives that are processing groundnuts into peanut butter and also that that producing vegetables, packaging and selling to off-takers.

Market Connect model

- This focuses on the Small and Medium Enterprises which could be a sole proprietor business, partnership or family owned business. The business should have a potential to grow and also support a group of producers. For example, an aggregator whose role is aggregating produce from producers and sell to the other agribusiness (off-takers) or processors, buying from producers and then process and sell to the off-takers.
- The support the project given is in terms of technical assistance and business development services to SMEs identified.
- The SMEs are categorized into two tiers. Tiers 1 consists of SMEs that have all the requirements (eg governance systems and record keepings are in place) and these are about 70 SMEs. While SMEs in tier 2 are those that are still struggling with meeting the requirements to access these grants. And these are around 200 SMEs. The projects works on technical assistance to ensure that these SMEs in Tier 2 get to Tier 1.
- The Project also offers some finances through matching grant arrangements. The Project can give a maximum of US$100,000 for SMEs that are ready to take on opportunities on the market.

Challenges associated with grant matching as a potential financial tool

- It time consuming as a lot of paperwork is involved. The proposal should be convincing if the SMEs has to get the grant.
- Tough competition as there are many SMEs who would want to benefit free funds. This may result in the elite capture problem and leave out well deserving SMEs
- Limited flexibility in how funds are to be used once the grant is offered despite grants being free money. SMEs must be very specific about how they use the money when applying for a grant and once they get the grant they have to follow that plan.

Conditions that will enable grant matching financing mechanism work

- It is important to target people that are already interested in using matching grants as a form of financing and the success of this tool can drive others to use this tool as well.
- Capacity building would be very useful especially for SMEs venturing in value chains for the first time
- Given that grants require proposal writing, simplified proposal templates can easy the process of application especially among the least educated SMEs.
- Group members should have a common goal if they have to successfully get the grant
- SMEs should have an upfront contribution thus not suitable for SMEs that totally financial constrained

4.6. Crowd funding

About crowd funding: Crowd funding is a way of raising money to finance projects and business ideas when an SME does not have sufficient resources to kick start the business. The SME sells the business idea through a business plan for people to contribute funds towards the implementation of the business idea. The logic behind this financing mechanism is to work with what you have first and then source for more funds or resources. Any person who invest in this idea is paid back a percentage share of their investment. The sources of funds could be within the communities, churches, or women groups or through advertisement on online platforms.

Box 5. Crowd funding a case of YouFarms

YouFarm is a private Zimbabwean company that provides alternate funding for farmers through the YouFarm Crowd Farming Platform. This Platform allows people to become a part of the agriculture value chain by letting them invest in agricultural value chains and then share the profits with the farmers once produce sold. Through this mechanism, YouFarm provides funding for small holder farmers and commercial farmers who fail to access finance from traditional commercial lenders for various reasons. In order to mitigate against the risks associated with agriculture, and maximize yields, YouFarm provides farmers with training, agronomists and access to technology. The YouFarm Crowd Farming Platform allows people to invest in multiple crops from anywhere in the world. You can become a farmer without owning any land.

Opportunities: this is the fastest way to raise the finances with no upfront fees. It is an option of financing if the SMEs struggle to get bank loans or traditional funding. It is not always that resources will be in monetary terms but even physical assets can be sourced. For example, if an SME wants to venture in poultry production, invested can also contribute say feeders and drinkers. But these should be valued. Also sharing the idea can get you feedback and expert guidance on how to improve the idea.

Challenges associated with crowd funding as a potential financial tool

- Currently, there is no legal framework in Zambia to guide the operation of this financing mechanism.
- Low financial literacy levels among SMEs to take advantage this option
- The limited market space to advertise the business ideas
- Dealing with losses

Conditions that will enable crowd funding mechanism work

- Having the legal framework in place
- Building platforms where SMEs can advertise their ideas. This is not necessarily online platforms but different networks that even illiterate SMEs can take advantage
- Insuring the business so that insurance takes care of the loss except it reduces the return on investment.
- Profits should not be paid in case of losses so that the principal amount can be reinvested
- Need to conducted a due diligence: Some investors are not always in for profit making, rather for raising the wellbeing of SMEs/farmers
- This will work for SMEs who are innovative and are financially literate

4.7. Warehouse receipt

About warehouse receipt: The warehouse receipt system has been active in Zambia since 2007 and ZAMACE is mandated by law to implement it. Warehouse receipt system allows individuals to manage credit risks. For example, a farmer has a commodity (maize), but the recurring price is low. The farmers may want to hold on to maize yet he has immediate financial obligations. To easy his financial constraints, the farmer deposits his maize and pays handling fees. Farmer gets a receipt after the deposit, which he takes to the bank and gets a 70 per cent of the current price of the commodity delivered. This amount is subject to 1.5 per cent interest. Currently, only First National Bank (FNB) is accepting such receipts as collateral. Once the commodity is sold at a future higher price, the farmer is paid his money after interest deductions.

Opportunities: SMEs can access finance through the deposit as the receipt acts as collateral for a loan. Warehouse receipt system works like a savings account as SMEs can sell part of their harvest and deposit the balance for a better future price. It is private led, thus it is sustainable. This financing mechanism bean a collateral based, an individual only gets a percentage of his deposit, hence it reduces the risk of over borrowing beyond the future value of the deposited commodity.

Challenges associated with warehouse receipt as a potential financial tool

- Not very attractive to financial institutions due to high risks nature of agriculture
- There is no guarantee that the price of commodities will increase
- The Food Reserve Agency (FRA) offloads cheap maize on the market which discourages investors

Conditions that will enable warehouse receipt financing mechanism work

- Push for FRA to reduce on the grain strategic reserves and only stock the right quantities of grain
- Work on modalities to determine future prices to encourage investment
- Farmers should take agriculture as business for them to have a marketable surplus that could be deposited

5. Conclusions

Given the financial constraints that SMEs face in Zambia, this study identifies different financing mechanism that can help address the pitfalls of access finances. The reports documents the opportunities and challenges of each financing mechanism and the conditions under which each financial tool will work in addressing the financial constraints.

Though the study shows that each financial tools is unique, building capacity of the beneficiaries is a precondition for the each financial tool to successfully meet its objective.

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