Bindura University of Science Education

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THE NEXUS BETWEEN HOUSEHOLD FOOD SECURITY AND VILLAGE SAVINGS AND LOANS ASSOCIATIONS: A CASE OF MASVINGO DISTRICT, ZIMBABWE.

A dissertation submitted in partial fulfillment of the requirements for the Master of Science Degree in Food Security and Sustainable Agriculture (Policy)

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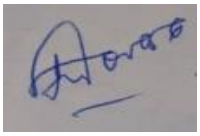
Signature: 

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I hereby declare that the research project entitled "**THE NEXUS BETWEEN HOUSEHOLD FOOD SECURITY AND VILLAGE SAVINGS AND LOANS ASSOCIATIONS: A CASE OF MASVINGO DISTRICT, ZIMBABWE**." submitted to Bindura University of Science Education, Department of Agricultural Economics, Education and Extension is a record of an original work done by me under the guidance and supervision of Ignetious Govere and this work is submitted in partial fulfilment of the requirements for the award of a Master of Science Degree in Food Security and Sustainable Agriculture. The results embodied in this thesis have not been submitted to any University or Institute for the award of any degree or diploma.

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DEDICATION

This research is dedicated to my family, friends, relatives, and all those who have dedicated all their time and resources to the cause of development work.

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ABSTRACT

Food insecurity remains a topical issue in Zimbabwe with El Nino-induced mid-season dry spells exacerbating food insecurity. Village Savings and Loans Associations (VSLAs) have been suggested as proven, sustainable, and cost-effective intervention to enhance food security. This study gathers evidence from 320 households (69.7% male-headed), representative of 149 VSLA, in Masvingo District by assessing the nexus between household food security and village savings and loan associations. Descriptive statistics, bivariate and multinomial logistic regressions are computed. Only 6.3% of respondents accessed loans from Banks, 22.2% had a high wealth status score and 12.5% accessed food and cash assistance. 73.1% of respondents participated in at least two VSLA groups. Adoption of social funds portfolio was low (9%). The main objectives for saving included collective access to household furniture and kitchen utensils, cash savings, farm inputs and implements, and groceries. Financial (savings, miscellaneous, loans, and cash book), and non-financial (attendance register, constitution, and minute book) records were kept. Main Income Generating Activities (IGAs) utilized included farming, hired labor, petty cash trading, remittances, and formal employment. The main success factors of the VSLA included member self-selection, equal access to loans, transparency in leadership, saving in foreign currency, appropriate saving cycle length and loan repayment period, transparent financial records, public-private partnerships, and group monitoring and training. However, precedency of crop and livestock diseases, limited low capital income-generating alternatives, lack of funds to save, and poor adoption of constitutions adversely affected VSLA activities. VSLA's relative governance and administrative efficiency was at 3.10 out of 5. There was a strong positive association between Household Dietary Diversity Scores (HDDS) and the level of engagement in VSLA activities (($\chi^2(4)$) of 309.888, p<1%). Households that were highly engaged in VSLA activities had 88.0% of their members in the high HDDS (10-12) category. Chi-square analysis of HDDS against the level of relative governance and administrative "smoothness" was also significant at 1% (χ^2 (4) = 21.9). Bivariate analysis confirmed level of engagement in VSLA activities explaining only 59.2%, 52.7%, 41.8%, and 45.1% variations in food availability, accessibility, stability, and utilization respectively. The final model fit for the multinomial regression model for determinants of HDDS fitted well (χ^2 (28) = 417.74, P < 1% & Nagelkerke Pseudo R-square = 0.890). The Deviance Chi-square confirmed the goodness of fit (χ^2 (610) = 129.848, P = 1). The significant predictors (P < 5%) identified in the likelihood ratio tests included VSLA activities, post-harvest handling and storage (PHHS) practices, administrative efficiency, household size, land size, savings cycle, remittances, and formal employment. Multinomial log odds ratios of being in the moderate (7-9) and high (10-12) HDDS score categories, relative to low (0-6) HDDS were positively correlated to level of VSLA activities engagement, VSLA governance and administrative smoothness, household head's level of education, level of crop diversification and adoption of PHHS practices. On the other hand, having formal employment and not receiving remittances in the past 6 months was associated with lower odds ratios of being in the moderate (7-9) and high (10-12) HDDS score categories. It can be concluded that there is enough evidence of the contribution of VSLA to household food security in Masvingo, however, the methodology is not all-sufficient without paying attention to other determinants of HDDS. There researcher recommends collaboration between development partners, gorvenment line ministries and other relevant stakeholders in livelihoods programming to ensure layering on VSLA Activities (public-private-partnerships) to enhance food security.

Key words: Village Savings and Loans Associations (VSLA), Food Security, Derteminents, Gorvenance, Household Dietary Diversity Score (HDDS

LIST OF ACRONYMS AND ABBREVIATIONS

VSLA	Village Savings and Loans Associations
HDDS	Household Dietary Diversity Score
ICRM	Integrated Climate Risk Management
ROSCAs	Rotating, Savings and Credit Associations
ASCAs	Accumulating Savings and Credit Associations
NGOs	Non Governmental Organisations
CIMMYT	International Maize and Wheat Improvement Center
PHHS	Post-harvest Handling and Storage
FaaB	Farming as a Business
ZimVAC	Zimbabwe Vulnerability Assessment Committee's
SFL	Sesame For Life
ZSS	Zimbabwe Super Seeds
IGAs	Income Generating Activities
PPPs	Private-Public Partnerships
PHL	Post Harvest Losses
SOP	Standard Operating Procedure
LFSP	Local Farmers' Service Providers
ZimVAC	Zimbabwe Vulnerability Assessment Committee

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CHAPTER 1
INTRODUCTION

1.1 Background of the study

Food insecurity has been a topical issue, both on a local and global scale. Global hunger affected 9.2 percent of the world population in 2022 compared to 7.9 percent in 2019 which translates to between 691 and 783 million people in the world facing hunger (FAO, IFAD, UNICEF, WFP, & WHO, 2023). Landlocked countries such as Zimbabwe, with 49 percent of its population living in extreme poverty, are not spared (WFP, WFP Zimbabwe Country Brief, 2023). The Zimbabwe Vulnerability Assessment Committee's (ZimVAC) 2023 Rural Livelihood Assessments report estimated 29 percent of the 2023 urban population (1.5 million people) and 19 percent of the rural population (1.9 million) being cereal insecure (FNC, 2023). The report further postulated that 26 percent (2.7 million people) of the rural population will be food insecure during the January to March 2024 hunger period. Masvingo Province has been trending, dating back to 2016, on the list of provinces experiencing the highest rates of food insecurity in Zimbabwe (FAO, 2022).

Food insecurity needs to be addressed as it is a serious threat to the performance of the country's economy. Chiefly, it can lead to impaired physical and cognitive development which negatively affects labor productivity for the diverse economic sectors (Royer, Guerithault, Braden, Laska, & Bruening, 2021). Basu, et al., (2018) concluded that food insecurity is associated with higher healthcare use as large shares of healthcare costs are incurred for small proportions of patients which are often emergency department patients, who are admitted for lengthy days. Rising death tolls, due to food insecurity also shrink the workforce, and for those who survive, near-term productivity is severely affected (Salgado, et al., 2022). The government may need to increase expenditure on social safety nets to support households experiencing food insecurity thereby straining public finances.

Food insecurity also discourages foreign investment in the agricultural sector as it raises the cost of labor which is a crucial input. Results from research conducted by Ndiweni (2019), affirmed that there is a correlation between education attainment and the food security status of children. Children experiencing food insecurity are more likely to miss out on school and have very low educational attainment. This negatively affects the country's future economic prospects. Food insecurity can also lead to increased crime rates as individuals resort to illegal methods of obtaining food. To support this claim, DiFiore, et al., (2022), concluded that lower food insecurity prevalence was associated with higher perceived neighborhood safety, social cohesion, and lower police-recorded violent crime rates.

The negative impacts of food insecurity on the country's economy are crystal clear, however, the pathway to address these challenges is marred by a plethora of challenges. These can be economic, environmental, agricultural, political, social, and technological (Chingarande, Matondi, Mugano, Chagwiza, & Hungwe, 2020). Climate Prediction Centre (2023), cited in WFP Zimbabwe Country Brief, August 2023, indicated a 90 percent likelihood for the country to continue experiencing the El Nino phenomenon which started in June 2023. The phenomenon will prevail through March 2024, the consequences of which are below-normal rainfall and high temperatures. Unemployment, conflicts, rapid population expansion, poor development, and investment in rural infrastructure such as roads, schools, clinics, markets, and irrigation are also major contributors to Zimbabwe's food insecurity status (Mukwedeya & Mudhara, 2023). Furthermore, declining soil fertility, low adoption of production-enhancing and yield-enhancing technologies, dysfunctional input-output markets, and poor access to extension services also contribute to household food insecurity in sub-Saharan Africa (Mango, Zamasiya, Makate, Nyikahadzoi, & Siziba, 2014).

Short-term and intermediate to long-term interventions need to be put in place to address the country's alarming food security situation. Individuals, Non-Governmental Organisations, Government, Donor agencies, and other stakeholders are channeling vast resources towards addressing the country's food insecurity. Sustainability remains a puzzle and critical questions still need to be answered: "*Which cost-effective activities need to be scaled up? Which interventions need to be revisited or dropped completely? How can we implement the effective methodologies identified*?".

According to the World Food Program Zimbabwe's August 2023 Country Brief, the organization assisted 22,421 people with in-kind food and cash transfers. A total of USD471,395 cash-based transfers and 16 MT of food were distributed just for that month. The organization also indicated that it had budgeted USD 63 million for channeling six-month assistance commencing September 2023 to February 2024. However, food and cash transfers can fuel intra-community tensions and generate feelings of unfairness if there are targeting-related issues (Pavanello, Watson, Onyango-Ouma, & Bukuluki, 2016). Kita (2014) postulated that coordination systems, with appropriate checks and balances and strong government monitoring, ought to be improved to harness benefits from food and cash transfer interventions. To some extent, food aid and cash transfers can create negative dependency, whereby individuals, households, or communities alter their behavior in response to the provision that unwittingly creates disincentives to undertake desirable behavior (e.g., to grow a crop or rear animals and to allocate time to work) (Barrett, 2006).

Other initiatives to address food insecurity include setting up rural irrigation schemes for smallholder farmers. Dube and Sigauke (2015), citing the Gweru irrigation scheme, highlighted that irrigation schemes enhance both household and community food security. Irrigation schemes provide an opportunity for farmers to be net sellers, enjoy the benefits of price volatility, and reduce dependency on unpredictable rainfall (Muzerengi & Mapuranga, 2017). A large sum of investment is required to set up an irrigation scheme even though its effectiveness is affected by water stresses, competing water needs, and outbreaks of pests and diseases (Mwadzingeni, Mugandani, & Mafongoya, 2022).

Dating back to Zimbabwe's December 2020 policy brief, short-term, medium to long-term, and long-term interventions were put in place to alleviate food insecurity. Short-term measures included investment into social services, education, social protection, effective stakeholder participation, and improved extension services (ActionAid, 2020). Progressive tax reforms and expansionary macroeconomic policies were also considered. The policy brief further included the following interventions: supporting innovative agricultural research and development; promoting alternatives to hybrid seed and chemically intensive agriculture; promoting the creation of women and youth-led farmer group businesses; aligning national investments in agriculture with farmers' priorities and focusing on financing smallholder support programs; building human and physical capacities by ensuring that women and youth access land for undertaking viable crop and livestock enterprises. All the above-mentioned strategies have been put in place albeit the current dilapidated food security status of the country.

This therefore calls for the introduction, adoption, and improvement of already existing, proven, sustainable, and cost-effective interventions that enhance food security. Among the suggested solutions is Village Savings and Loans Associations (VSLAs).

The benefits of participating in VSLAs are directly linked to food security as they range from health, educational, and social, financial inclusion, to livelihood enhancement, and empowerment (CARE, 2022). Ogwal, Obici, and Mwesigwa, (2022) in their study in Uganda, concluded that VSLAs affect food availability, food accessibility, and food stability. The research further recommended that if the government improves the quality of VSLA activities, the positive ripple effects on food security are not to be underestimated. Studies in Mozambique claimed that VSLA activities increase months of food security and child dietary diversity (Brunie, Fumagalli, Martin, Field, & Rutherford, 2014).

Hongo (2013) also concluded that the VSLAs approach enhanced the ability of women in Bondo District, Kenya, to produce more food, and purchase food of higher quality and quantity. In addition, the methodology also enhanced women's ability to make decisions related to food

variety and quality. Recent studies in the Marange community, Mutare, Zimbabwe, provided evidence that non-VSLA participants experienced poor food availability and utilization compared to participants (Moyo & Chinoda, 2022). The methodology has also witnessed meals consumed per day and household expenditure being linked to an increase in savings and loans obtained from VSLAs (Ksoll, Lilleor, Lonborg, & Rasmussen, 2016). Agricultural production and investment in income-generating activities have also been positively affected by VSLAs.

Given this background, the study aims to quantify the extent to which the VSLAs methodology enhances food security within the context of Zimbabwe, with a particular interest in Masvingo District.

1.2 Statement of the Problem

The rate at which the VSLA methodology is being massively adopted by many organizations, including governments, as part of their livelihoods programming has triggered significant attention. As of 2021, according to CARE's 2021 VSLA's annual report, a total of 28, 846 VSLAs comprising 199,539 participants, 158,159 being women, had been established in Zimbabwe alone. On a global scale, CARE's VSLA's footprint had cumulatively impacted 13.7 million people, 25 percent being youths. Many studies have concluded that Village Savings and Loan Associations (VSLAs) can be used to address food insecurity (BARA and IPA 2013; Chivasa, 2020; Gash and Odell, 2013; Hongo, 2013; Moyo & Chinoda, 2022; Ogwal, Obici, and Mwesigwa, 2022).

Citing Masvingo, many non-governmental organizations including SNV Netherlands, CIMMYT, Tree Of Life, Mwenezi Development Training Centre (MDTC), Aquaculture Zimbabwe, Family AIDS Caring Trust, CARE, Tsuro Trust, Linkages for Economic Advancement of the Disadvantaged (LEAD), Caritas and GOAL, have adopted VSLAs approach. In contrast to this rate of adoption, food security remains an issue with nearly 3.5 million people being projected to be acutely food insecure and in urgent need of assistance by March 2024 (FAO, Country Briefs, Zimbabwe, 2023). It is crystal clear that there is a gap in the knowledge and practice-based evidence that should guide the implementation of VSLA activities, within the local context, if we are to consider enhancing food security.

Dating back to 2006, studies have shown that microfinanciers are not well-versed in the activities of VSLAs. They emphasize credit provision with little to no knowledge of the products that are of value to the participants which might include the ability to build and protect their assets through savings compared to increasing risk and exposure through taking exorbitant loan products (Hugh, 2006). In addressing this knowledge gap, the study characterizes the activities and implementation methodologies being employed by VSLA participants in

Masvingo District. It proceeds to generate evidence and literature on optimum loan interest rates, savings, and expenditure partners by VSLA participants which will guide microfinanciers and other interested firms in the development of various demand-driven products or linkages. The immediate to long-term effect is win-win private-public partnerships which enhance food security.

Huge debates have emerged on conclusions and recommendations around success factors and constraints of VSLAs. Achola (2012) concluded that there was no significant relationship between financial literacy and the sustainability of VSLAs. The author also emphasized the need for research to examine the importance of record-keeping on loans and savings losses. On the contrary, Mutuku (2015), postulated that financial literacy is of paramount importance to ensure sustainability as it would improve accountability by members on VSLA funds, lack of which resulted in group natural death. The research therefore closely examines success factors and constraints faced by VSLAs.

In Uganda, Nigeria, Kenya, Malawi, and Ghana, various studies have confirmed that there is a positive relationship between VSLA activities and food security, to mention a few (Likwaya, 2020; Yahuza Garba Illo & Jega, 2021; Ogwal, Obici, & Mwesigwa, 2022). There is not much literature focussing on the relevance of VSLAs towards enhancing food security within our local context. The study analyses factors affecting the food security of VSLA participants using Household Dietary Diversity Scores (HDDS) as an index to food security. The findings will contribute to the board of knowledge on various factors that significantly affect the effectiveness of VSLA as a food security strategy. The contribution of VSLA activities to all four pillars of food security, that is food availability, accessibility, stability, and utilization will be quantified. The food utilization pillar is also analyzed as it is the most complicated and neglected among food security pillars.

1.3 Objectives of the study

1.3.1 Main objective

1. To assess the contribution of VSLA to household food security in Masvingo District.

1.3.2 Specific objectives

1. To characterize the activities and implementation methodologies being employed by VSLAs in Masvingo District.
2. To identify the success factors and constraints, and then assess the governance and administrative “smoothness” of VSLA activities.
3. To assess the contribution of VSLA activities to food availability, accessibility, stability, and utilization.

4. To analyze the factors influencing food security in terms of the Household Dietary Diversity Scores (HDDS) of VSLA participants.

1.4 Research Questions

1. What are the activities and implementation methodologies being employed by VSLAs in Masvingo District?
2. What are the success factors and constraints, and the relative governance and administrative efficiency "smoothness" of VSLA activities?
3. What is the contribution of VSLA activities to food availability, accessibility, stability, and utilization?
4. Which factors are influencing the Household Dietary Diversity Scores (HDDS) of VSLA participants?

1.5 Significance of the study

The research adds more to the in-depth literature on the current activities and methodologies being implemented by VSLAs within the local context. This will bring attention to policymakers, service providers, financiers, and other development practitioners to align their activities in the best interest of coordination and collaboration. It further highlights capacity building needs to guide implementation of livelihoods intervention which builds on VSLAs as the primary structure. The study highlights current opportunities that have developed and evolved in VSLA activities which contributes to the literature on food security, financial inclusion, and cooperative finance issues affecting developing countries. The research findings will give an insight into how best VSLA programs can be designed and implemented to better meet the food security needs of smallholder farmers. All the findings and recommendations will be used as a baseline for further studies and for generalizing other provinces in Zimbabwe thereby further guiding implementation, participant targeting, and capacity building. The completed research paper will be published and submitted to Bindura University's repository thereby adding to the board of knowledge. Lastly, the study demystifies key issues around lending money to the rural smallholder farmers as it gives complete information on how the locals loan each other and the interest rates they are comfortable with thereby stimulating interests of microfinanciers to service farmers participating in VSLAs.

1.6 Scope/Delimitations and Limitations of the Study

The study targeted beneficiaries of two projects being implemented by SNV- Netherlands Development Organisation, which are the Zambuko Resilience Initiative and Integrated Climate Risk Management (ICRM) projects. Geographical location and financial resources constraints have delimited the study to six project wards in Masvingo District, that is wards 12,

16, 17, 18, 19, and 25. Only three hundred and twenty households were interviewed owing to time and resources constraint. The research coincided with the period of peak agricultural activities by the project beneficiaries. The study limited food security status to be represented by the Household Dietary Diversity Score as the global indicator. However, the household dietary diversity score cannot be used as a proxy for intra-household food distribution, and it also does not have a universal cut-off that can be used to check whether the household is sufficiently diverse or not. Anthropometric measurements were not used as they require more resources and time to gather and collect. Respondents may give false information as they might associate their responses with whether they should receive food and cash assistance. The research had no control over the effects of political or even socio-economic variables on food security.

1.7 Outline of the thesis

The thesis is organized into 7 chapters. Chapter 1 (Introduction): introduced the research to readers. It comprises of the background to the study, problem statement, objectives, research questions, justification, scope/delimitation of the study, outline of the thesis, and references. Chapter 2 (Literature Review): gives wholesome literature which support the study. The structure of the section included the introduction, conceptual framework, summary and then references.

Chapter 3 (Methodology): gives indepth information on the methodology that has been adopted to allow other researchers to replicate the study. The chapter indicates the study site, research design, sampling, data coolection and analysis procedure. The chapter also outline the data collection ethics that were observed. It also gves the relevant references used.

Chapter 4, 5 and 6 (Results): these chapters gives all the outcomes respective of the objectives of the research. Three abstracts are formulated. The chapters alson comprise of introductions, materials and methods used for the study, description of the study area, sampling procedure, data analysis procedure, challenges encountered during data collection, results, discussions, recommendations, conclussions and also references.

Lastly Chapter 7 (summary, conclusions and recommendations): this is the last chapter of the study which gives an introduction, research summary, conclussions, policy implication and recommendations, areas for further study, references and appendices for the study.

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CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter gives wholesome literature on the studies that have been carried out concerning food security and VSLAs, it further explains keywords used in food security studies to give different scholars an in-depth understanding and appreciation of food security issues at both local and global scales.

2.2 Overview of Zimbabwe's food security situation

Dating back to 2020, Zimbabwe was classified as one of the world's top global food crises in the United Nations report (Maiden, 2020). A total of 5.2 million people, in Zimbabwe, were reported to be facing insufficient food consumption by the end of December 2022 (WFP, 2023) and a total of 15,000 children are treated for severe wasting on an annual basis (UNICEF, 2023). In 2023, Zimbabwe ranked 107th as it had a global hunger index score of 28 which falls in the 20.0 to 34.9 range which depicts serious hunger (CONCERN & WHH, 2023). Expectations of a below-normal supply of agricultural produce between February to September 2024 period were focussed (Relief Web, 2024). On the 4th of April 2024, Zimbabwe was the third country to declare a state of emergency after Zambia and Malawi had already declared (Ushewokunze, 2024). There is therefore sufficient evidence to conclude that Zimbabwe's food security status urgently needs drastic measures to address it. VSLA methodology is believed to be one of the best alternatives that can be adopted to address the country's food security issues.

2.2.1 Introduction to Village Savings and Loan Associations (VSLAs)

Over the past years, Village Savings and Loan Associations have evolved from various savings group methodologies. The VSLA methodology seeks to improve all the gaps and loopholes that were identified in the rolling out of several methodologies including the Rotating Savings and Credit Associations (ROSCAs).

i. Rotating, Savings and Credit Associations (ROSCAs).

A ROSCA is defined as a group of people or individuals who agree to meet up, regularly, at an agreed venue and date to collectively bring funds together to save and borrow- a form of peer-to-peer banking and peer-to-peer lending (Wikipedia, 2024). Dating back to 1983, Bounman, F.J , in summarizing the key concepts from this definition, mentioned that ROSCAs are termed the "poor man's bank", savings are not gathered for future utilization but are immediately distributed to the recipient to meet consumption and production need (Wikipedia,

2024). Individuals act as informal financial institutions, contribute an agreed amount to which one member withdraws at the savings meeting, and thus bridge access to finance in developing countries (Chen, 2023).

The advantages of ROSCAs range from encouraging personal savings, accountability, accessing significant loan amounts, social benefits (networking), and reducing unplanned expenditures (Chen, 2023). However, the methodology comes with risks and challenges. These include loss of motivation when other members default or unethical practices by leaders, impatience of members to obtain their share on their turn, ROSCAs transforming into a Ponzi scheme if not managed well, contributions being limited to members only thereby reducing the total amount available for loaning and lastly, no interest is charged on loans thereby giving those who receive their share first an advantage compared to those who receive last (Zambrano A. F., Giraldo, Perdomo, Hernández, & Godoy, 2023). A village savings and loans association methodology was then developed to resolve these challenges.

ii. Village Saving and Loans Association.

Village Savings and Loan Associations (VSLAs) are community-based savings groups that have gained popularity in many developing countries, particularly in rural areas (Alesane, Yussif, & Tetteh Anang, 2019). The introduction of VSLAs as a tailored service to bridge access to finance dates to 1991 as it was introduced by CARE in a village in Maradi, Niger (CARE, 2006). In 1998, Uganda adopted this methodology with full support from Non-Governmental Organisations and the government to cover financial gaps (Rujumba, 2019).

These associations are typically formed by members of a community coming together to pool their resources and savings, to provide financial services to members who may not have access to formal banking institutions (Amponsah, et al., 2023). The main purpose of VSLAs is to promote financial inclusion by providing a safe and accessible platform for members to save money, access credit, and engage in small-scale lending activities within their community (Ksoll, Lilleør, Lønborg, & Rasmussen, 2016). VSLAs are based on the principle of collective action, where members work together to accumulate savings, which are then used to provide loans to members in need. The VSLA methodology discourages borrowing for less productive purposes as the loans accumulate interest (Brannen & Sheehan-Connor, 2016). These associations are usually informal and operate on a rotating savings and credit system, where members make regular contributions to a common fund (Chivasa, 2018). The funds are then lent out to members in need, often at affordable interest rates, allowing them to invest in income-generating activities, meet urgent expenses, or cope with emergencies. VSLAs also provide a platform for members to learn about financial management, develop business skills,

and build social networks within their community (Bannor, Oppong-Kyeremeh, Derkyi, Adombila, & Amrago, 2020).

The formation of a VSLA typically involves several steps. Firstly, interested community members come together to discuss the need for a savings and loan association and establish a set of rules and regulations for its operation (Chivasa, 2020). These rules typically cover issues such as membership criteria, savings requirements, loan terms, interest rates, and governance structure. Once the rules are agreed upon, members elect a committee to oversee the operations of the VSLA and ensure its smooth functioning (Wu, et al., 2022). The committee is responsible for collecting savings from members, recording transactions, disbursing loans, and enforcing the rules of the association. Regular meetings are held where members contribute their savings, discuss loan applications, and make decisions on financial matters affecting the group.

In terms of how VSLAs function, members typically contribute a fixed amount of money to the common fund during regular meetings, which are usually held weekly or biweekly (Thophilus & Paul, 2019). The funds are then kept in a secure lockbox or bank account, and members are provided with passbooks or other forms of record-keeping to track their savings and loan transactions. When a member needs a loan, they can submit a loan application to the committee, specifying the amount needed and the purpose of the loan. The committee then assesses the application based on the member's repayment history, ability to repay, and the impact of the loan on their livelihood (Okello & Mwesigwa, 2022). If approved, the loan is disbursed from the common fund, and the member is required to repay the loan along with any interest accrued within a specified period. As members repay their loans, the funds are returned to the common pool and made available for other members to borrow (Chivasa, 2020). This rotating system allows for a continuous flow of funds within the association, ensuring that members have access to credit when needed and can benefit from their savings in times of financial stress.

However, other VSLAs have evolved from the traditional way as they consider time value of money and the risk of having all savings centralised. Total loans that will be available on the savings meeting are calculated well before and members book loans in advance. At the savings meeting, they repay outstanding loans, save, and loan each other such that no hard cash is left with the treasure serve for social funds which could be separate from their savings. The modern methodology is backed by thorough record-keeping. In addition, due to improved record keeping, some VSLAs now allow flexible savings. A member can contribute two or more shares depending on the maximum cap that has been stipulated hence more savings available for loaning.

2.2.2 Adoption of the Village Savings and Loans Association Methodology

The VSLA methodology has been massively adopted over the past years. To mention a few, the African Youth Empowerment and Development Initiative (AYEDI), 2018, in its VSLA implementation guide, mentioned several organizations including Oxfam, Catholic Relief Services (CRS), Plan International, World Vision, and UWESO. As of 2018, seventy-five nations in Latin America, Asia, and Africa, had adopted the model, and seventy-eight percent of participants were women (Mbiro & Ndlovu, 2021). According to CARE's 2021 VSLA's annual report, a total of 28, 846 VSLAs comprising 199,539 participants, 158,159 being women, had been established in Zimbabwe alone. In that very same year, on a global scale, CARE's VSLA footprint cumulatively impacted 13.7 million people, 25 percent being youths. The statistics have alarmingly increased as a follow-up to the 10th of August 2023 report. The organization's VSLA's footprint has directly reached over 17.65 million people with 13.7 million being women (CARE, 2023). We cannot deny the fact that the VSLA methodology is being massively adopted.

2.2.3 Key drivers of success in VSLA methodology

The VSLA methodology has several underpinning factors which significantly contributes to its success, know as success drivers. The following table summarises the key success drivers of VSLA:

Table 1 Key Success Drivers of VSLA

Key success drivers of VSLA	References
Members self select	(Champchesnel, 2017)
Ability to self-manage with members being focal persons creating a sense of autonomy, Members input in decisions	(Gunne, 2023); (Singer, 2010)
Training and monitoring or support visit	(CARE, 2023) (Singer, 2010)
Clear roles and responsibilities among members	(CARE, 2023)
Low costs of establishment	(Singer, 2010)
Multi-puporse group (Can be used for other activities or objectives)	(Singer, 2010)
Loan intrests are benefitted by VSLA members	(Singer, 2010)
Fiancial linkages	(CARE, 2023)
Accurate record keeping	(CARE, 2023)
Trust among members	(Gunne, 2023); (CARE, 2023)
Low savings allow participation by all people who are from different financial backgrounds.	(Gunne, 2023)
Acting as a safe space to allow deliberation of gender-sensitive issues	(Gunne, 2023)
Engaging in sustainable income-generating activities by women.	(Gunne, 2023)

2.2.4 Constraints in VSLA Methodology

Albeit being an effective methodology to address food insecurity, VSLA also faces several constraints that also affect its effectiveness. The following table summarises the literature on constraints:

Table 2 Constraints Faced by VSLA

Constraints in implementing VSLA activities	References
Limited capital (loan demand exceeding savings available)	(Singer, 2010); (Okuna, Acanga, & David, 2023)
Products only limited to savings without linkages to other external services	(Singer, 2010)
Can be subject to elite capture where the most influential override VSLA decision (exploit loan funds or not repaying loans); Maltreatment by those in leadership	(Singer, 2010); (Okuna, Acanga, & David, 2023); (Navvumba, 2019)
Corruption and less government support	(Okuna, Acanga, & David, 2023)
Favoritism in loan disbursement	(Navvumba, 2019) (CARE, 2023)
High competition from the formal sector	(Okuna, Acanga, & David, 2023)
Illiteracy among members	(Okuna, Acanga, & David, 2023); (Navvumba, 2019) (Mang'eni, Allen, & Shaw, 2021)
Inadequate training among group leaders	(Okuna, Acanga, & David, 2023) (Mang'eni, Allen, & Shaw, 2021)
Loan defaulters	(Navvumba, 2019) (Mang'eni, Allen, & Shaw, 2021)
Absenteeism to savings meetings	(Mang'eni, Allen, & Shaw, 2021); (CARE, 2023)
Cultural beliefs	(CARE, 2023)

2.2.5 Contribution of VSLA activities to livelihoods and food security

Participation in agricultural activities has been seen to negatively influence the decision to participate in savings groups (Bukuwa, 2022). However, contrary to that, the author further concluded that when the VSLA participant is engaged in agricultural activities, savings groups account for forty percent of all their agro-input expenditures. In addition, their per capita expenditure on agro-inputs was significantly higher compared to non-participants. In line with that, savings and credit, obtained from VSLA, positively increases investment in agriculture and small businesses, meals consumed per day, and household expenditure as measured by USAID Poverty Assessment Tool (Ksoll, Lilleor, Lonborg, & Rasmussen, 2016).

Dating back, Hugh (2006) postulated that the VSLA methodology is sustainable and cost-effective as far as bridging the gap between the financial services needs of the poor and the

capacity of banks and Micro Financial Institutions to service rural areas. Cost of setting up a microfinance institution in Africa was estimated to be $200-300 per client as compared to setting up a VSLA which requires only $25-40 per client, including overheads. To be specific, regarding India the cost was estimated at $15. Relating to the overheads of setting up financial services in rural areas, microfinanciers refer to these rural people as the unbankable population (Mahohoma, 2016). In 2013, results from a FinScope survey estimated that 62% of the rural population is excluded from accessing financial services (EPRC, 2013). Therefore, VSLA is an important avenue to enhance access to financial services by rural households.

Schola, (2016), accredited the VSLA approach as a key driver towards poverty reduction and confirmed positive effects on household welfare including increased asset investment, nutritional diet, engagement in income-generating activities, meeting up education expenses, and the general quality of participant's infrastructure. Okello and Mwesigwa, (2022) affirmed these findings and claimed that VSLA advocated a grassroots organizational base that facilitated dialogue for women to collectively analyze and resolve welfare issues, improve entrepreneurial skills, and engage in income-generating activities thereby leveraging their household income levels. In addition, the methodology offered financial services in amounts that were too small and too frequent to ever be provided by the formal sector thereby ensuring access to savings, credit, and insurance- addressing financial inclusion.

Beyene, (2018) used propensity score matching (PSM) to estimate the impact of women's participation in VSLA on average monthly household income. The conclusions drawn were from a sample of 254 respondents (157 VSLA participants and 157 non-participants) in Hawassa City, Ethiopia. Research findings confirmed a positive effect on the average monthly household income of VSLA participants which was significant at a 5% level. The study evidenced that there is a significant positive association between VSLA activities and improvements in household diet, health, children's education, and women's involvement in household decisions. Dating back to 2016, clustered randomized trials were used to investigate the impact of VSLAs in Northern Malawi over two years (Ksoll, Lilleor, Lonborg, & Rasmussen, 2016). The conclusions drawn were also in line with Beyenen's in 2018. There was evidence of positive and significant effects of access to savings and credit obtained from VSLA and meals consumed per day, household expenditure as measured by the USAID Poverty Assessment Tool, and the number of rooms in the dwelling (Beyene, 2018). In addition, the methodology also increased agricultural investments and income from small businesses.

2.3 Conceptual framework

The contribution of VSLAs to household food security is affected positively (+) and negatively (-) by both exogenous and endogenous variables. Exogenous variables include political (access to land and resources), environmental (climatic conditions), social (social capital), economic (inflation, stability of currency), institutional (infrastructures, acess to services, policies and regulations), and technological (productive machinery and equipment). Endogenic factors are group-related factors, which can be used to summarise the structure and the activities of the group. The following conceptual framework has been developed to map the relationship between VSLAs activities and their contribution to food security pillars.

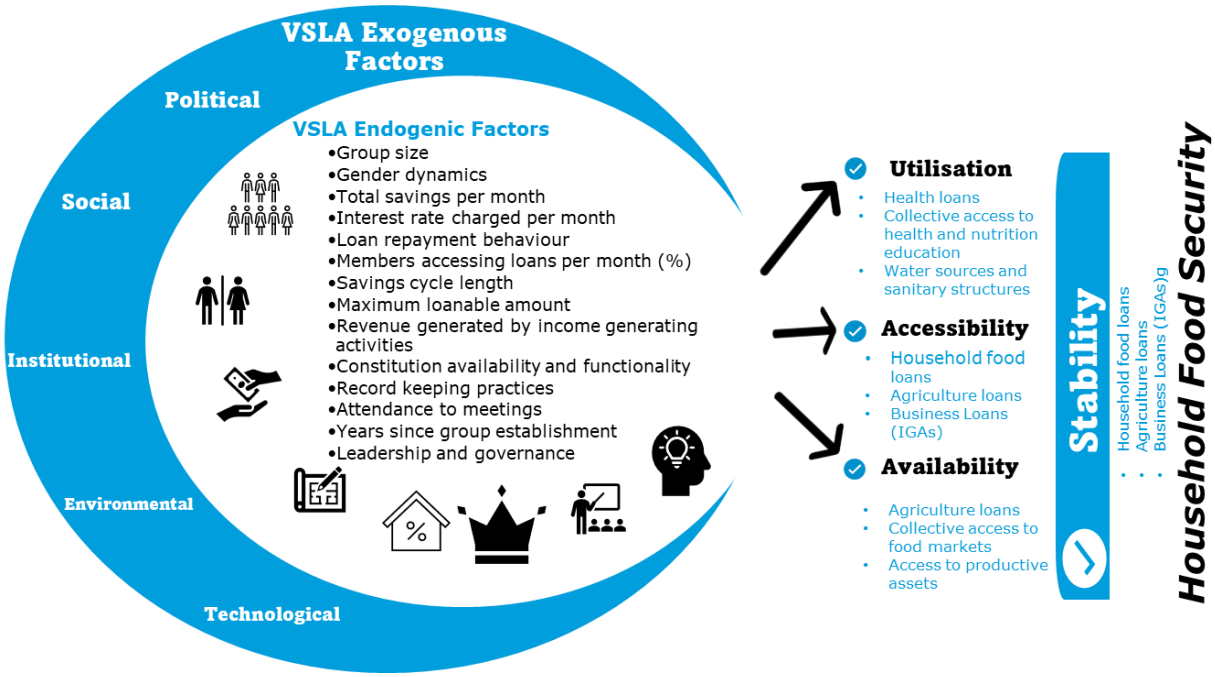

Figure 1 VSLAs-Food Security Conceptual Framework

2.4 Summary of literature review

Literature has delved on the qualitative aspects of the contribution of VSLA activities both locally and globally. There is still a vividly missing link on the quantitative aspects which infuses statistical inference on the specific food security pillars that are significantly affected and the magnitude or the extent of variation explained by engagement in VSLA activities. In addition significant determinants of Low, Moderate or High HDDS needs to be identified and the extent of their impact on household food security quantified. Literature only gave a blanket qualitative association on the determinants which might not be relavent and specific to the different HDDS categories. The study therefore leverages on closing these gaps to further quantify and document the contribution of VSLAs to food security within the local context (Zimbabwe, Masvingo).

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CHAPTER 3
METHODOLOGY

3.1 Introduction

The chapter summarises the research methodology that the study uses. It gives a summary of the study area, research design, data collection methods, and how the data collected will be analyzed.

3.2 Description of study area/sites

The study purposively covers six wards in Masvingo District, in Masvingo Province of Zimbabwe. These geographical wards include wards 12, 16, 17, 18, 19 and 25. Two USAID-funded projects, Zambuko Resilience Initiative and Integrated Climate Risk Management (ICRM), are being implemented in these wards by SNV in partnership with CYMMIT, Aquaculture Zimbabwe (AQZ), Tree of Life (ToL) and Mwenezi Development Training Centre (MDTC). Four thousand participants are benefiting from these projects. These projects began to be implemented in 2018 where they were organizing, monitoring, and mentoring more than one hundred VSLAs. The projects are offering training, extension, and advisory in crop and animal husbandry, financial literacy, farming as a business (FaaB), leadership and governance, community cohesion, and lastly post-harvest handling and storage (PHHS).

Geographically, Masvingo District is situated in the south-eastern of Zimbabwe in Masvingo Province. The province has seven districts which are Masvingo, Zaka, Mwenezi, Chiredzi, Bikita, Chivi and Gutu. There is a very high potential for irrigation as it has the most water bodies in Zimbabwe. This has made commercial cattle ranching and livestock production easy.

Figure 2 Masvingo Province Map (Chikodzi, et al., 2012)

The district is efficiently linked by the Harare-Beitbridge Road, making cross border trading a significant link to agricultural activities. Masvingo province covers a total of 56,566 km^2. The socio-cultural context of the province is comprised of several ethnic groups including Karanga, Venda and Shangaan (Chingarande, Matondi, Mugano, Chagwiza, & Hungwe, 2020). However, there is still

prevalence of gender-based violence and women are only given leeway to make income decisions when the income is very small or is from "women's projects".

3.3 Research Design

There are three basic sorts of research designs, namely qualitative, quantitative, and hybrid , as seen in the literature (Kumar, 2014). Since the research involved the gathering and analysis of numerical and qualitative data, a mixed-method research approach was used. The approach combined components of qualitative and quantitative methodologies for instance use of qualitative and quantitative data collection, analysis, and inference techniques, for broad, rich, in-depth understanding and corroboration (Johnson et al, 2007).

3.4 Sampling procedure

The research made use of both purposive and random sampling methods. Wards were purposively selected considering accessibility and geographical coverage and the number of project beneficiaries participating in VSLA. Two to three random volunteers were selected from each VSLA, respective of group size, giving a total of **320** respondents. A formula for calculating finite population sample size was used to obtain this sample size. The formula for calculating an unlimited population sample size (***n***) was used to derive a finite sample size (***ṅ***). The following formula was used as follows:

Unlimited population: $\boldsymbol{n = \frac{z^2 \times p(1-p)}{E^2} = \frac{1.96^2 \times 0.3(1-0.3)}{0.05^2} = 322.6944}$

Finite population: $\dot{n} = \frac{n}{1+\frac{z^2 \times p(1-p)}{E^2 N}} = \frac{322.6944}{1+\frac{1.96^2 \times 0.3(1-0.3)}{(0.05^2)4000}} = \mathbf{298.6049}$

Where: **z** is the Z score at 95% confidence interval.

E is the margin of error

N is the population size.

p is the population proportion

The finite sample size of **298.6049** is then rounded off to **300** participants. However, a total of **320** participants from **149 VSLAs** volunteered to participate. A database of VSLA participants from each ward was obtained from the two projects to confirm if the volunteer is a beneficiary of either of the two projects. A sample, according to Kenton (2019), is an easier-to-manage subset of a bigger group that shares the same characteristics as the entire population and hence serves as the source of the research sample.

3.5 Data collection methods

The following table summarizes the data collection methods used for the research.

Table 3 Data collection methods

Method	Description
	Qualitative
Desk Review	Internet sources were used to research the study area to appreciate population size, geographic location, livelihoods, non-governmental organizations operating in the area, resorts and recreational facilities, water bodies, and other important information.
Key informant	Interviews were conducted with local service providers (agro-dealers, micro-financiers, contractors, seed houses, transporters, etc), project field officers, and government agricultural extension officers. This gave the researcher a more clear picture of the target population before conducting the actual research. They were also important figures in drafting and piloting the household questionnaire to ensure that all issues were articulated and questions that might trigger sensitive issues were filtered to align with local norms and values.
Focus Group Discussion	WhatsApp platforms with VSLA representatives were used to conduct virtual focus group discussions which gave insight into household interviews. A long list of success factors and constraints, which was further categorized and summarized, was generated from the input of these focus group discussions.
Observations	The researcher also observed VSLA record books, Income generating activities, road networks, and infrastructure which gave a richer analysis and explanations of some of the key findings of the research.
	Quantitative
Household Survey	The research administered structured questionnaires for household interviews (*Refer to appendix 1*). Saunders, (2010) defines a questionnaire as a collection of questions that have been typed down and printed in a specific order. The thrust of the interview rested on concluding, at the household level: a. Activities and implementation methodologies of VSLA b. Success factors and constraints of VSLAs and assess their level of governance and administrative efficiency c. Contribution of VSLA Activities to food availability, accessibility, stability, and utilization d. Factors affecting Household Dietary Diversity Scores (HDDS) of VSLA participants

3.6 Data analysis methods

Primary data was collected directly from VSLA participants using household interviews. Descriptive statistics such as means, frequency distributions, percentages, variances, and standard deviations were used to summarize household socioeconomic and demographic variables. Statistical Package for Social Sciences (SPSS) and Excel Spreadsheet were used to analyze and summarise qualitative and quantitative data. The following sections give in-depth information on the data collected, the methodology used, and the analysis employed.

3.6.1 Characterization of activities and implementation methodologies.

Focus group discussions and key informant interviews were facilitated to obtain information on the activities, committees, records-keeping practices, accessed services, expenditure patterns on VSL funds, and a list of non-governmental organizations and other firms or service providers assisting VSLAs. The information obtained was summarized using descriptive statistics. Participants' consent was sort for to obtain pictures and other forms of media that would assist in the characterisation of the diverse VSLAs activities and methodologies. Participants were asked to bring their VSLA record books as evidence of their record-keeping methodologies and structures as described in their constitutions. The observation method was used to assess the record books. The researcher also attended savings meetings to further appreciate the VSLA methodologies being used.

3.6.2 Success factors and constraints

Focus group discussions were facilitated on WhatsApp platforms which constituted VSLA members to come up with a random list of constraints and success factors. The list was further refined using key informant interviews. The two lists were then availed to VSLA participants at the household level to identify their perceptions and scoring on the severity of the constraint or the extent to which the success factor is contributing or attributed to the success of their VSLA. Descriptive statistics were used to summarize the observed frequencies and scores on a Likert scale of five with one being the lowest score.

3.6.3 Governance and administrative "smoothness" of VSLAs activities.

A variable is created to measure governance and administrative "smoothness" of VSLA activities. In this context, governance and administrative smoothness refer to the perception of VSLA participants on the group's level of efficiency in various aspects which are critical to the effectiveness of the group in attaining all its different objectives including those of enhancing their households' food security. Governance and administrative smoothness were derived by subtracting the average severity score of all constraints from the average score of all success factors and then adding a score of one to the outcome. Adding a score of one would ensure that the least possible score will not be negative. Therefore the possible scores ranged from

zero to five. The higher the score the higher the level of administrative smoothness. The following formula summarizes the computations:

$$\textbf{\textit{Smoothness of VSLAs Activities}} = Average\ Score\ of\ Success\ Factors - Average\ score\ of\ Constraints + 1$$

3.6.4 Contribution of VSLAs to food availability, accessibility, stability, and utilization.

Descriptive statistics, inferential analysis, and correlations were run between VSLA activities and food security indicators. Bivariate correlations were run on the Level of VSLA Activities engagement against four fundamental pillars of food security as dependents. A Chi-square analysis of the Household Dietary Diversity Score against the Level of Engagement in VSLA activities and also against Adminstrative Effectiveness was done. A series of variables were generated to run the analysis. These include:

VSLA Activities*:* measures the extent to which the respondent has been participating in VSLA activities that are directly linked to food security. These include household level of expenditure on funds obtained from savings or loans, member attendance to VSLA meetings, number of times VSLA loans have been accessed, and number of times the participant has received shareouts since joining VSLA. Each response question is scored out of five and an average of the five questions is computed to give the aggregate score for VSLA activities which ranges from zero to five. A higher score resembles active participation by the member and a lower score resembles lower participation.

Food availability: measures the extent to which the participants' households can attain food availability. The variable is an average of five structured questions which cover months that the household can spend with cereal from own production, livestock ownership, price of basic commodities (maize grain), frequency of buyers accessing grain in the local area, and lastly household sales of surplus grain as proxy to surplus production. The score ranges from zero to five as it is an average of the five responses.

Food accessibility: the variable is a proxy to the food access pillar. It is generated from five questions covering economic access through salaries or wages, petty cash trading and remittances, stability of basic commodities prices, how much the household spends on food items, and lastly the household's perception of their ability to afford basic food commodities. The score is derived also from an average of the five questions which gives us a maximum possible score of five.

Food stability: the variable is an average proxy to five questions. These include the use of advanced fertilizer and chemicals in production activities, availability of good storage facilities

and usage of grain protectants to protect the harvest, the number of crops that are produced under irrigation as a way of cautioning against hard weather conditions, and lastly frequency of occurrence of losses livestock and stored commodities due to drought and diseases. The variable gives a fair proxy to food stability which also ranges from zero to five.

Food Utilisation: lastly the food utilization pillar is also considered for the analysis. The variable is a by-product of responding to questions on farmers' knowledge on drying and preserving foodstuff, the occurrence of malnutrition diseases such as kwashiorkor and diarrhea in VSLA member's households, how often meat and meat products are consumed by the household every week, and lastly frequency of food losses due to molding every week which will be an index to poor storage practices. The utilization variable again will also be an average of the five questions. A score of five will also be the maximum possible score that can be attained.

For analyses that included HDDS, which has three categories, the determinant variable was converted into categorical to enable chi-square analysis to be computed. The following table summarises the analyses that are to be run:

Table 4 Bivariate and Chi-square Analysis

Regressor (*X*)	**Type or Values**	**Dependent Variable (*Y*)**	**Type or Values**	**Analysis**
VSLA Activities	*Continuous*	Food availability	*Continuous*	Bivariate correlations
VSLA Activities	*Continuous*	Food accessibility	*Continuous*	Bivariate correlations
VSLA Activities	*Continuous*	Food stability	*Continuous*	Bivariate correlations
VSLA Activities	*Continuous*	Food utilisation	*Continuous*	Bivariate correlations
VSLA Activities	*Categorical* (low, moderate & high)	Household Dietary Diversity Score	*Categorical* (0-6; 7-9 & 10-12)	Pearson Chi-Square tests
Administrative Smoothness of VSLA Activities	*Categorical* (low, average & high)	Household Dietary Diversity Score	*Categorical* (0-6; 7-9 & 10-12)	Pearson Chi-Square tests

3.6.5 Household Dietary Diversity Scores (HDDS) of VSLA Participants

The study measures Household Dietary Diversity Scores as an index to the household's food security status. Twelve food groups are considered- cereals; root and tubers; vegetables with tubers; leafy vegetables; fruits; meat, poultry; eggs; fish; pulses/legumes/nuts; milk and milk products; oil/fats; and sugar/honey. A score of one is awarded for each food group consumed in the past 24 hours by the household members. The total score that a household obtains for all

the food groups consumed would generate the HDDS which ranges from zero to twelve. The higher the score, the more food secure the household is, and the opposite is true for a low score.

3.6.6 Determinants of VSLA Participants HDDS

An HDDS obtained will be used as a proxy for whether a household is food security status. All the HDDSs are converted into a three-level categorical variable, that is low (0-6), moderate (7-9), and high (10-12). A multinomial logistic regression is performed with the categorized HDDS as the dependent to examine the factors influencing the odds ratio of the households' food security status. The category of low (0-6) HDDS was used as a reference for all the analysis.

The model will be specified as below:

$$P(Y = j \mid X) = \frac{e^{\beta_{j0}+\beta_{j1}X_1+\beta_{j2}X\,2+\ldots+\beta_{jk}X_k}}{\sum_{m=1}^{J} e^{\beta_{m0}+\beta_{m1}X_1+\beta_{m2}X\,2+\ldots+\beta_{mk}X_k}}$$

Where:

$P(Y = j \mid X)$ is the probability of the outcome Y taking out the *j*-th category, given the predictor variables *X*

J is the number of categories in the outcome variable Y

B_{jo} is the intercept for the *j*-th category

$B_{j1}, B_{j2}, \ldots B_{jk}$ are the regression coefficients for the *k* predictor variables $X_1, X_2, \ldots, X_k$ for the *j*-th category.

It is known that the food security status of VSLA participants is affected by VSLA group-related factors (endogenous factors) and non-VSLA group-related factors (exogenous factors). Exogenous factors are only true to the individual participants which could be social, demographic, political, institutional, environmental, economic, and even technological. The study therefore tries to capture a wide range of variables that affect the household food security status of VSLA participants. The following table summarises the variables that were analyzed in the multinomial logistic regression model:

Table 5 Variables in the multinomial logistic regression model

#	**Dependent Variable (*Y*)**			
	Household Dietary Diversity Score (1= Low (0-6); 2= Moderate (7-9); 3= High (10-12) (FAO, 2011)			
#	**Determinant Variables (X)**	**Description of variable**	**Unit or Category**	**Expected sign**
1	Education of household head	Number of years of education of Household Head (Mango, et al., 2014)	Years	+
2	Gender of household head	Sex of the household head, (Negesse, et al., 2020)	0= Female 1= Male	+/-
3	Age of Household Head	Age of Household Head in years (Mango, et al., 2014)	Years	+/-
4	Household size	Number of family members in the household (Mango, et al., 2014) (Abu & Soom, 2016)	Count	+/-
5	Land ownership	Total size of land owned by the Household in hectares (Vu, Rammohan, & Goli, 2021); (Abu & Soom, 2016)	Acres	+
6	Livestock ownership	Number of goats and cattle owned (Mango, et al., 2014)	Count	+
7	Pests and Disease Management	Whether the household has applied or used any chemicals to manage pests and diseases in crops and or livestock in the current season (Ali, Abdellah, & Eletmany, 2023)	0= No 1= Yes	+
8	Soil fertility management	Whether the HH has adopted any soil fertility management practices in their fields during this cropping season - mulch, manure, crop rotation, fertility trenches, tying ridges, and potholing (*makomba*). (Pozza & Field, 2020)	0= No 1= Yes	+
9	Access to farm inputs	Indicating whether the household has used fertilizer, improved seed, and other chemicals in their crops this season (Ali, Abdellah, & Eletmany, 2023)	0= No 1= Yes	+
10	Length of saving cycle	Number of months that the VSLA takes to save before sharing out. (CARE, 2024)	Months	+/-
11	Interest charged on VSLA loans	Interest rates being charged for loans borrowed from VSLA funds (Frisancho & Valdivia, 2021)	0= <10% 1= >10%	-/+
12	Amount saved per month	Amount of money that the individual contributes to the VSLA per month (Dinegde, Bekele, & Sima, 2022)	Dollars	-/+
13	Governance and administrative smoothness of VSLA	Measures how smoothly are the VSLA activities being conducted regarding leadership and governance.	Score out of five	+
14	Number saving cycles since the group established	Variable indicates the length of years or period since the group was established.	Count	+
15	Wealth status	Wealthy score is obtained from a selected number of assets which are weighted to give a wealth score. (Abu & Soom, 2016)	Score	+
16	Off-farm income (Employment and IGAs)	Amount of money that the HH obtains from formal and informal employment opportunities including any form of petty trading. (Abu & Soom, 2016)	Dollars	+
17	Distance from the main road	Distance in kilometers from the nearest main road. (Mango, et al., 2014)	Kilometres	+
18	Group size	Number of members in the VSLA group. (CARE, 2024)	Count	+

19	Training and mentoring	Indicating whether the group has received any form of training from their local extension officers and other organizations (CARE, 2024)	0= No 1= Yes	+
20	Level of VSLA participation	The variable estimates the level of participation in VSLA activities by the Household member. This will be an average score out of five. (CARE, 2024)	Score out of five	+
21	Food aid access	Whether the household received food aid in the past 6 months?	0= No 1= Yes	+
22	Remittances	Whether the household received remittances in the past six months (Mango, et al., 2014)	0= No 1= Yes	+
23	Health of Household Head	Has the HHH or any household member suffered from any critical illness in the past 6 months in which they were admitted to a hospital	0= No 1= Yes	-/+
24	Level of Nutrition Garden Utilization or Crop Diversification	Uses the number of crops grown in the garden or irrigated land as a proxy to the level of utilization of irrigatable land or nutritional garden. . (Nyathi & Ndlovu, 2022)	Score out of five	+
25	Adoption of good PHHS practices	Measures the extent to which the household has been adapting post-harvest handling and storage practices which enhances access and availability of food as it minimizes wastages. (Abu & Soom, 2016)	Score out of five	+
26	Level of Subsistence	Number of months that the household is able to spent with grain from own production. . (Nyathi & Ndlovu, 2022)	Months	+
27	Access to external loans	Whether the household has been accessing loans from other micro-finance institutions.	0= No 1= Yes	+
28	Diversification of livelihoods	Number of livelihoods that the household is utilising to earn a living. (Nyathi & Ndlovu, 2022)	Count	+

3.7 Ethical Considerations

According to Rukuni (2001), ethics entails the researcher's behavior being appropriate for the subjects of the study and everyone else who might be impacted by it. The study was carried out by guiding ethical standards, such as respecting participants' right to privacy, maintaining the confidentiality of any information submitted, and avoiding unauthorized access to corporate property. The household questionnaire explained clearly the purpose of the study and how the research findings were to be utilized. An ethical clearance letter was also obtained from the University of Bindura which was submitted to local authorities and other relevant stakeholders to ensure that they are all aware of the study. Respondents were asked to sign consent forms to declare that they had voluntarily participated in the survey.

3.8 Summary

The research made use of Excel and SPSS as data analysis tools. Paper questionnaires were used for household surveys. A few challenges were encountered during data collection- (1) the research covered six wards which are geographically spaced with the furthest ward being 95km away from Masvingo town with the closest being 27km away; (2) Mobilization, sensitization, and synchronization of household interview schedules to tally with respondents' livelihood activities; (3) Fuel costs for mobility and data collection were high as the research was self-sponsored; (4) Printing costs and logistical costs constrained the research process; (5) The researcher had to translate some variables into the vernacular to ensure that respondents and community-based facilitators who assisted in data collection would understand; (6) Researcher followed up with phone calls where critical information from the respondents was missing, further increasing research costs.

Avenues should be explored on new technology for data collection using mobile devices as they offer real-time access to accurate information. In addition, the researcher acknowledges the importance of local leadership structures in facilitating awareness, aims, objectives and relevance of the study.

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CHAPTER 4

ACTIVITIES, IMPLEMENTATION METHODOLOGIES, SUCCESS FACTORS, CONSTRAINTS, RELATIVE GOVERNANCE AND ADMINISTRATIVE SMOOTHNESS OF VSLAS ACTIVITIES IN MASVINGO DISTRICT.

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Abstract

The paper gathers evidence from 320 households, representative of 149 VSLA, in Masvingo District to document VSLA implementation methodologies. It further unpacks the success and constraints being faced by the participants and ascertains the level of governance and administrative "smoothness" of VSLA activities. The majority of the households were male-headed (69.7%) and at least 75.3% of all male or female household heads had attained some secondary education. All respondents accessed loans from VSLA, with only 6.3%, and 53.1% having also accessed loans from Banks or Microfinance firms and mobile wallet services (EcoCash and One Money) respectively. Only 22.2% of the respondents had a high wealth status score with the reminder having an average to low wealth status score. Food and cash assistance had been accessed by only 12.5% of the respondents. There was evidence of multiple participation in VSLA with 73.1% of respondants participating in at least two groups. Adoption of social funds portfolio was still low (9%). The main objectives for saving were characterized by access to household furniture and kitchen utensils (42%), cash savings (42%), collective access to farm inputs and implements (36%), and groceries (24%). Financial (savings, miscellaneous, loans and cash book), and non-financial (attendance register, constitution and minute book) records were kept to enhance VSLA's relative governance and administrative efficiency which was at 3.10 out of 5. Main Income Generating Activities (IGAs) that were being utilized, in ranking order of importance and respective of the percentage of participants utilizing the options, included farming (92.8%), hired labor (68.1%), petty cash trading (66.3%), remittances (21.3%), formal employment (18.4%), pension (10.9%), handouts (8.1%), service provision (10.9%) and lastly rentals (3.4%). The sustainability and effectiveness of the VSLA association hinged upon member self-selection, equal chances to access loans, transparency in leadership, saving in a stable foreign currency, appropriate saving cycle length, transparent financial records, appropriate loan repayment period, meaningful private sector public-private-partnership and access to group monitoring and training. However, precedency of crop and livestock diseases, limited low capital income generating activities, unavailability of funds to save, and poor adoption of constitutions adversely affected VSLA activities.

Key Words: Village Savings and Loans Association (VSLA), Success factors, Constraints, Governance, Micro-finance

4.1 Introduction

The Zimbabwe Vulnerability Assessment Committee's (ZimVAC) 2023 Rural Livelihood Assessments report estimated 29 percent of the 2023 urban population (1.5 million people) and

19 percent of the rural population (1.9 million) being cereal insecure (FNC, 2023). Food insecurity needs to be addressed as it is a serious threat to the performance of the country's economy. The consequences of which can lead to impaired physical and cognitive development which negatively affects labor productivity for the diverse economic sectors (Royer, Guerithault, Braden, Laska, & Bruening, 2021). Basu, et al., (2018) concluded that food insecurity is associated with higher healthcare use as large shares of healthcare costs are incurred for small proportions of patients which are often emergency department patients, who are admitted for lengthy days. Rising death tolls, due to food insecurity also shrink the workforce, and for those who survive, near-term productivity is severely affected (Salgado, et al., 2022). The government may need to increase expenditure on social safety nets to support households experiencing food insecurity thereby straining public finances. We therefore need to introduce, adopt, and improve already existing, proven, sustainable, and cost-effective interventions that enhance food security. Among the suggested solutions is Village Savings and Loans Associations (VSLAs).

The benefits of participating in VSLAs are directly linked to food security as they range from health, educational, and social, financial inclusion, to livelihood enhancement, and empowerment (CARE, 2022). Ogwal, Obici, and Mwesigwa, (2022) in their study in Uganda, concluded that VSLAs affect food availability, food accessibility, and food stability. The research therefore addresses the literature gap in which there is limited documentation on various implementation methodologies, key success, and constraints associated with adoption and rolling out of the methodology.

4.2 Material and Methods

The following section summarises the research design, sampling procedure, data collection, data analysis, and challenges encountered during data collection.

4.2.1 Description of the study area

The research was conducted in Masvingo District covering Wards 12 (Nemamwa), 16 (Mazanhi and Chatikobo), 17 (Chebvute,), 18 (Njovo and Chikava), 19 (Gwatinyanya Mututu and Mapanzure) and 25 (Nyajena and Mashapa). (Refer to Chapter 3 section 3.2).

4.2.2 Research Design

A mixed-method research approach was used for gathering and analyzing numerical and qualitative data (Refer to chapter 3 section 3.3)

4.2.3 Sampling procedure

The research used a sample size of 320 respondents from wards 12,16,17,18,19 and 25. The sampling procedure was both purposive (project beneficiaries and specific wards) and random

(selection of volunteer participants (VSLA group representatives). (Refer to Chapter 3 section 3.4)

4.2.4 Data collection procedure

The study used both qualitative and quantitative data. Desk review, key informant interviews, focus group discussion, observations and household surveys were used to collect data. (Refer to chapter 3 section 3.5)

4.2.5 Data analysis procedure

Descriptive statistics such as means, frequency distributions, percentages, variances, and standard deviations were used to summarize household socioeconomic and demographic variables. Statistical Package for Social Sciences (SPSS) and Excel Spreadsheet were used to analyze and summarise qualitative and quantitative data. (Refer to Chapter 3 section 3.6)

4.2.6 Challenges Encountered during Data collect

The research covered six wards which are geographically spaced. The furthest ward is 95km away from Masvingo town with the closest being 27km away. Mobilization, sensitization, and synchronization of household interview schedules with other field activities was a challenge as this sometimes conflicted with respondents' schedules for other livelihood activities. Fuel costs for mobility and data collection were high as the research was self-sponsored.

4.3 Results

The research findings were derived from a total of 320 VSLA participants representative of 149 VSLA from wards 12, 16, 17, 18, 19, and 25 of Masvingo District who were beneficiaries of either the Zambuko Resilience Initiative or Integrated Climate Risk Management (ICRM) projects. It was noted that Ward 17 had the highest number of VSLA interviewed considering its coverage as it is one of the biggest wards in the project area followed by Wards 19 and 16.

The following figure summarizes the distribution of sampled VSLAs across wards.

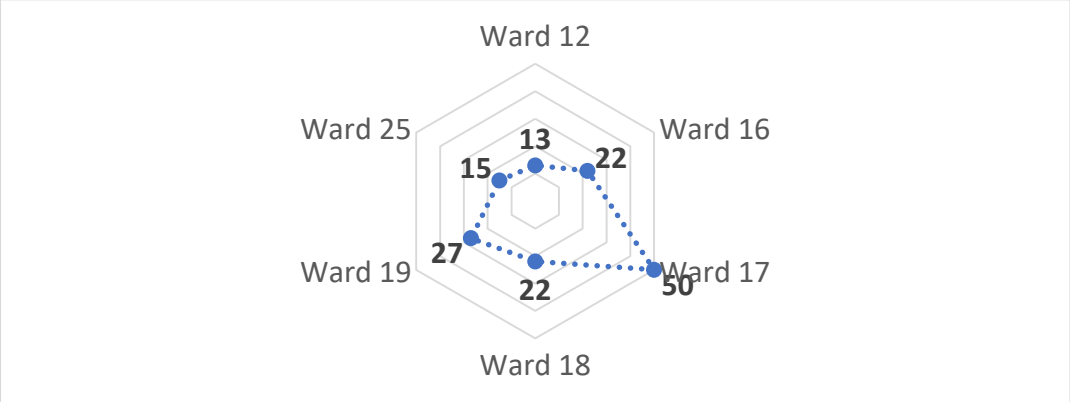

Figure 3 Distribution of sampled VSLAs across project wards

4.3.1 Demographic Characteristics of Participants

Demographic characteristics examined included household size, total dependants, household head level of education, and marital status. The following table summarizes household demographics.

Table 6 Household Demographic Characteristics

Household demographic characteristic	**Unit**	**Mean (Maximum)**
Total Household Members (HHSize)	People	6 (14)
Total Household Dependants (infants, old aged and disabled members)	People	3.14 (9)
	Category	**Column N %**
Gender of VSLA participant	Female	95.3%
	Male	4.7%
HHHEducation_Cat	Primary Level	24.7%
	Secondary Level	66.3%
	Advanced Level	3.8%
	Tertiary level	5.3%
Marital_Status	Single	7.5%
	Married	69.7%
	Divorced	4.1%
	Widowed	18.8%

The households interviewed had an average family size of 6 members with the maximum household size observed being 14 members. All the infants (<18 years) and all old household members (> 60 years) were considered household dependants and averaged 3 to 4 members per household with a count of 9 members being the maximum observed. The majority of the house head (75.3%) had attained at least some secondary-level education. A total of 95.3% of respondents were female and 69.7% of the respondents were married. The remainder of 30.3% were divorced, single, or widowed.

4.3.2 Socio-economic Demographic Characteristics of Participants

Total arable land owned by household, livestock ownership, number of ox-drawn farming implements, access to food aid, sources of external loans, and the wealth status of the household were used to partially describe the socio-economic status of the household. The following table summarizes the findings.

Table 7 VSLA Participants Household Socio-economic Demographic Characteristics

Household Socio-economic Demographic characteristic	**Units**	**Mean (Maximum)**
Total arable land owned by household	Acres	3 (12)
Goats Owned by Household (HH)	Goats	3 (21)
Cattle Owned by Household (HH)	Cattle	2 (18)

Number of Ploughs or ox-drawn implements owned by HH	Plows	1 (5)
	Response or category	**Column N %**
Received Food Aid in the past 6 months	Yes	12.5%
Accessed loans from Banks or other MFIs	Yes	6.3%
Accessed loans from mobile wallets (Ecocash and One Money)	Yes	53.1%
Wealth Status Score	low	31.3%
	average	46.6%
	high	22.2%

Households had an average arable land holding of 3 acres with the maximum being 12 acres. However, the bulk of the soils were sandy to loam soils with only ward 19 having red clayey soils. Livestock ownership ranged from an average of 4 goats and 2 cattle to a maximum of 21 goats and 18 cattle. The average number of cattle owned is low as they reported incidences of thereliosis. Households had to maintain herds just enough to sustain the use of ox-drawn farm implements. In addition, CIMMYT introduced walking tractors or two-wheeler tractors and reapers, in these project wards, to promote conservation practices and also reduce pressure on drought power. The ICRM project was also facilitating food aid distributions in ward 25, hence a total of 12.5% of interviewed households had access to food aid. The food hamper received comprised cooking oil and maize as basic commodities.

Sources of loans being utilized by the households included banks or micro-financial institutions (6.3%) such as Woman's Bank in Zimbabwe, Steward Bank, CABS, and Mobile wallet service providers (53.1%) such as Ecocash and One Money. Loans obtained from Banks and Microfinance institutions remained very low as all the respondents relied on loans from VSLA which were flexible and readily accessible without complex processes and application costs. In addition, the loans were being utilized to cover emergencies and the recipient benefited from the interest accumulated at the end of the saving cycle.

The wealth status score was used as a proxy for the household wealth status. A list of assets that were perceived to be owned by the affluent in the local context was generated following group discussions on WhatsApp with VSLA participants. Among the selected indicators on the wealth perception list was ownership of televisions, refrigerators, vehicles, smart cell phones, at least 100W solar panels for lighting households, sofa sets, livestock ownership (goats and cattle), land holding (acres), farm implements ownership, and water pump. The wealth score was then generated by summing up several assets owned by the respondent multiplied by the weight attached to the asset. Smart cell phones, solar panels, sofa sets, cattle, and plows

weighed 1, goats a weight of 0.5, televisions, refrigerators, and water pumps weighed 2, and lastly 3 for vehicle ownership. The wealthy score was therefore generated as follows:

$$\textbf{Wealth Score} = Smart\ Cell\ phones\ owned + solar\ panels\ owned + sofa\ sets\ owned + Cattle\ owned + plows\ owned + Goats\ owned * 0.5 + television\ owned * 2 + refrigerators\ owned * 2 + water\ pumps\ owned * 2 + vehicles\ owned * 3$$

The wealthy score was therefore categorized into the low score (0-7), average score (7-15), and high score (15+). The largest proportion of the respondents was in the average wealth score category, constituting 46.6%. Those who were in the lowest and highest score categories were 31.3% and 22.2% respectively.

4.3.3 VSLA Participants' Sources of Livelihoods and Income-Generating Activities (IGAs)

The IGAs being utilized, in ranking order of importance and respective of the percentage of participants utilizing the options, included farming (92.8%), hired labor (68.1%), petty cash trading (66.3%), remittances (21.3%), formal employment (18.4%), pension (10.9%), handouts (8.1%), service provision (10.9%) and lastly rentals (3.4%). Only a few respondents who were situated in Mapanzure and Nemamwa growth points collected rentals from their apartments and shop buildings. Farming activities remained the most utilized livelihood option with 92.8% of the participants selling either surplus of maize, legumes, leafy vegetables, green maize, poultry, and or other small livestock such as goats. All the interviewed households had a piece of land to engage in horticulture actitivites at either individual level or collectively in community gardens.

Figure 4 Fungai Mazanhi, Chebvute VSLA in the Chebvute Community Garden

4.3.4 Characterisation of VSLA Methodology

The following section explains the methodology being used by the VSLAs in Masvingo District wards 12, 16, 17, 18, 19 and 25. The outline is a summary of household interviews, key informant interviews, and observations during the surveying of 320 participants from 149 different VSLAs.

4.3.5 Group Formation and Training

According to the key informant interviews held with Zambuko and ICRM project field officers, that is Lamack Mahohoma, Saison Ncube, Letwin Svinurai, and John Masunda, several

benchmarks are being religiously followed to set up VSLA and nature VSLAs through their developmental stages.

Community mobilization, which covers both stakeholders and community members, initiates the introduction of VSLA in a targeted ward. Villagers are then trained through the five-core VSLA modules (member self-selection, leadership, and governance, constitution-making, group fund development, and record-keeping) which results in a VSLA group being formed. The group then undergoes mentoring and training for fourteen to nineteen months as it follows the development and maturity pathway. Intensive monitoring covers the first 2 to 7 months, the next 8-13 months (development phase) would be for bi-monthly monitoring and the last 14 to 19 months (pre-graduation phase) coinciding with quarterly monitoring in preparation for graduation. (Refer to Appendix 2)

4.3.6 Objectives for Saving and Share-outs

It is critical to ensure that VSLA participants share the same objectives for saving. A group can have one or more objectives for saving. The research results indicated that 38% of the VSLA groups had only one objective with the remainder having at least two objectives. Having multiple objectives reduced incidents of multiple group membership where on seaves in at lest two groups. Extreme cases witnessed 7.9% participating in at least four VSLAs. The following obejectives were identified respective of the percentage of VSLA- collective access to building materials (8%), livestock (13%), groceries (24%), farm inputs and implements (36%), household furniture (15%), and kitchen utensils (42%). In addition, others saved to collectively grow a social fund portfolio (9%) to support members in the event of being bereaved whilst other groups wanted to receive their savings as cash at the end of the cycle (42%).

The figure below summarises these objectives.

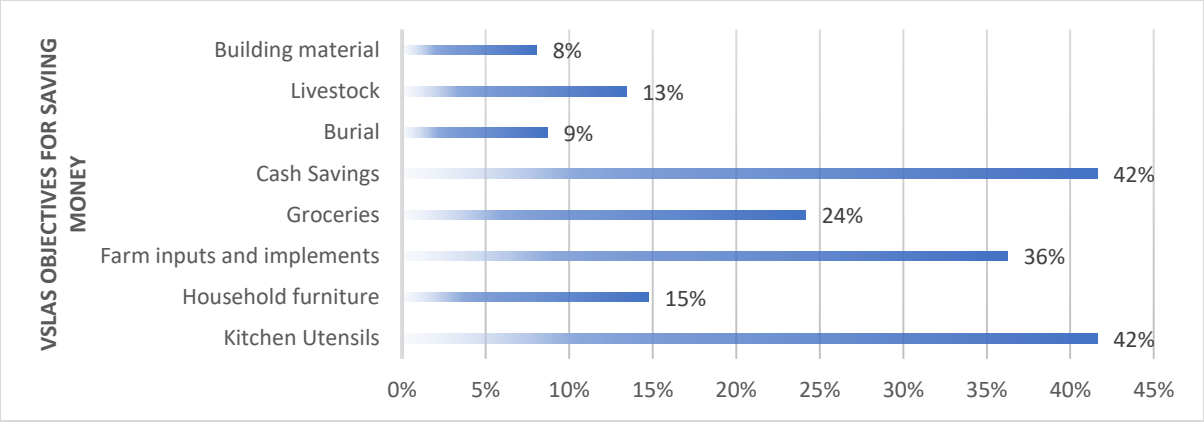

Figure 5 VSLA Objectives for Saving

Saving for purchasing kitchen utensils was a primary objective for start-up VSLAs with 42% saving to purchase household utensils. This objective is topped together with savings for cash.

42% of the VSLAs would give members a share of accumulated cash savings in December towards the festive season. Collective access to inputs was fostered by the linkages established with Farm and City, N Rchards and seed houses such as seedco and agriseeds who would deliver at door step.

4.3.7 Record-keeping practice

All the interviewed VSLA had five types of record books in common which they maintained for transparency and accountability. The records identified were either financial or non-financial which were administered by the secretary. The records identified included:

a. ***Constitution:*** the constitution was a critical record among all the interviewed VSLA. The two projects structured a constitution that was used across all VSLA participants. However various sections would be adjusted to suit the demands of the group. In summary, the common sections in the constitution included basic VSLA information, objectives, how to become a group member, committees, election procedures, frequency of meetings, savings/funds, penalties, exiting group, amendments, and all the group members' endorsement of the constitution. (Refer to Appendix 3)

b. ***Attendance registers***: The book summarises all the names of the members present during the savings meeting as they sign corresponding to their names. The heading for the column would also be in vernacular to enhance the accuracy of the information being captured. (Refer to Appendix 4)

c. ***Savings Book*****:** summarized all the savings respective of every member's contribution on the date of the savings. It's comprised of the name of the VSLA participants, the saving date, and the amount saved. The treasurer will sign to confirm the value of savings indicated by the secretary. (Refer to Appendix 4)

d. ***Savings Book*****:** summarized all the savings respective of every member's contribution on the date of the savings. It's comprised of the name of the VSLA participants, the saving date, and the amount saved. The treasurer will sign to confirm the value of savings indicated by the secretary. (Refer to Appendix 4)

e. ***Miscellaneous Book***: summarized all the fines that would have been paid by VSLA participants who would have breached the constitution. These fines also included late arrivals to savings meetings. It captures the date, full name of the VSLA participant, the reason for being fined, and the amount paid. (Refer to Appendix 4)

f. ***Cash Book:*** the cash book summarized all the cash transactions that were transacted during the savings meeting. It indicated the amount of money that has been collected through loan repayment and savings during the savings meeting. (Refer to Appendix 4)

g. ***Loans Book:*** was the longest and the most complicated of all the books. It accounts for all the loans outstanding and all the loans disbursed during the savings meeting. The loan book indicates the loan amount, interest charged, total loan value, reason for the loan, repayment period, signature of the VSLA participant, repayment date, amount repaid, amount outstanding, and comments on the loan repayment behavior of the participants. This guides in making informative decisions to reduce poor loan repayment. (Refer to Appendix 4)

4.3.8 Private Sector Linkages

Key findings from key informant interviews with Zambuko and ICRM field officers, community-based facilitators, and agricultural extension officers established evidence on several private sector linkages that were key in enhancing the food security of VSLA participants. The following table summarises the linkages:

Table 8 Private Sector Linkages with VSLAs

Company or Companies	**Linkage with VSLAs**	**Period**
Easi Trade	Cow Peas Seed (CBC2) Multiplication under contract arrangements. Selected last-mile distributors of horticulture seed, chemicals, and other agricultural inputs on a sales commission basis who were known as Agroprenuers.	2021 to 2024
Zimbabwe Super Seeds	Cow Peas Seed (CBC2) Multiplication under contract arrangements Sorghum seed multiplication (Marcia) White maize seed multiplication (ZS265)	2020 to 2024
Sesame For Life	Sesame production for both seed and consumption	2023 to 2024
SeedCo, Syngenta, Agriseeds, N Richards, Farm&City	Bulk delivery of seed and inputs under collective access to input arrangement	2021 to 2024
CABS, Steward Bank, Zimbabwe Women's Bank	Capital loans and bank accounts opening for transacting with contractors	2018 to 2024
Harvest Plus, Integrated Poultry Value Chain (IPVC)	Extension and advisory on: • poultry (IPVC) • sweet potatoes tuber and vines production (Harvest Plus)	2022

The impact of these private-sector linkages was never to be underestimated. To mention a few, in October 2023, 4,058.34kg of CBC2 cowpeas worth $3043.755 was sold to Easi Trade by 253 (53M;200F) VSLA participants who were contracted in all the surveyed wards. A kilogram of cowpeas sold at $0.80 to $1.00 respective of quality. In December 2023, $8982.44 worth of agricultural inputs had been procured by 413 (76M;337F) VSLA participants who had been linked to N Richards, Farm and City and SeedCo. Inputs were delivered to their locality free of charge.

Figure 7 Joyce Zenya, VSLA participant, Ward 16

Figure 6 Collective access to inputs by Murambwi VSLA, Ward 17

4.3.9 Key VSLA Success Drivers

The research remained guided by the outcome from physical and virtual key informants' interviews and focus group discussions with VSLA participants to compile a list of the perceived success drivers. A list with fifteen success drivers was obtained and the perceptions of every individual, among the 320 participants, on the significance of these success drivers were captured. A score of 5 was assigned for every success factor with 5 being the highest. The percentage of participants, out of the 320 respondents, who ranked the success factor a score of at least 3 out of 5 was obtained and used as a proxy for the relevance of the factor. The following figure summarises the outcomes.

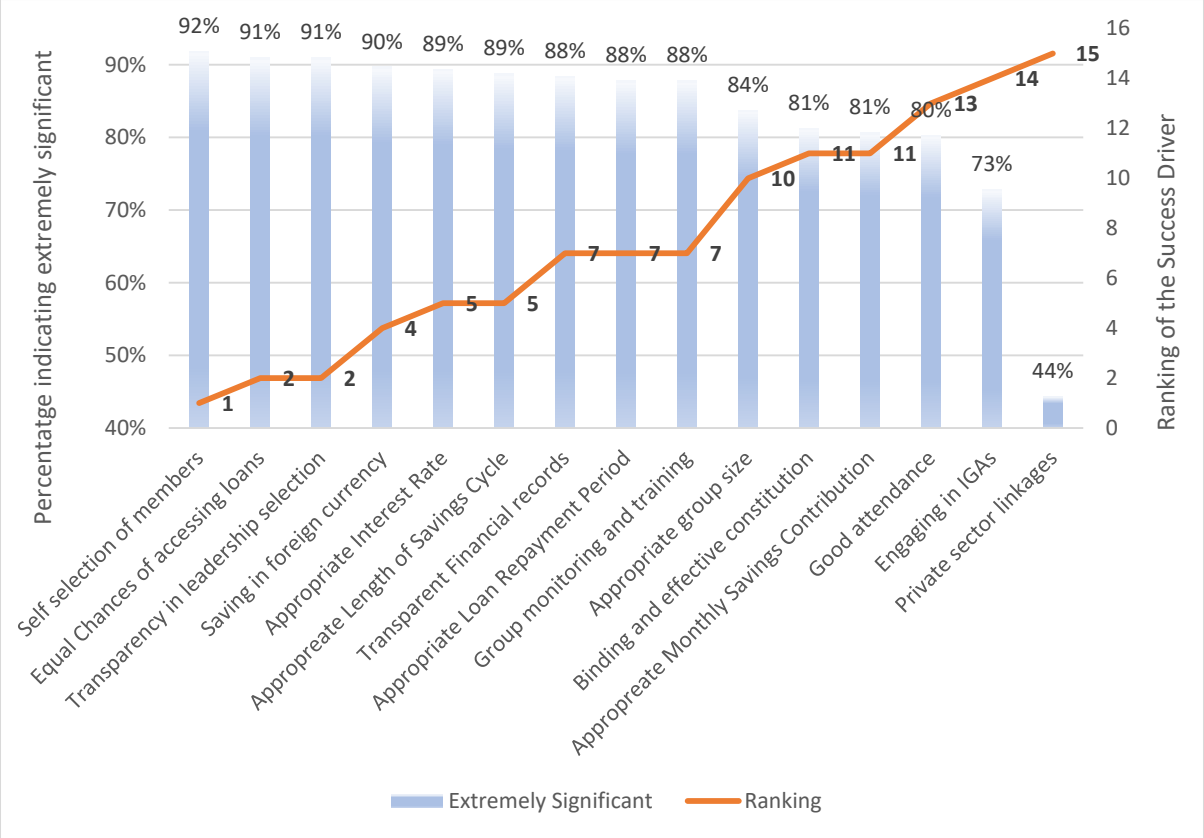

Figure 8 Key Success Drivers of VSLA

The top-ranking success drivers were self-selection of group members (91%), equal chances in accessing loans (91%), transparency in leadership selection (91%), saving in foreign currency which is relatively stable (90%), appropriate interest rate and length of the saving cycle which were (89%), transparency in financial records (88%), appropriate loan repayment period (88%) and access to group monitoring and training (88%). The lowest ranking was private sector linkages (44%), engagement in income-generating activities (73%), good attendance at savings meetings (80%), and appropriate group size (84%).

4.3.10 Key VSLA Constraints

The same methodology, that is combining input from key informant interviews and focus group discussions, was also religiously followed to come up with a list of twelve constraints faced by VSLAs. The list was then used to capture perceptions from the 320 VSLA members interviewed. A score of 5 was assigned for every contraint with 5 being the highest. The percentage of participants, out of the 320 respondents, who ranked the constraint a score above three was obtained which was used as a proxy for the severity of the factor. The higher the percentage, the higher the extent of severity. The following figure summarises the results:

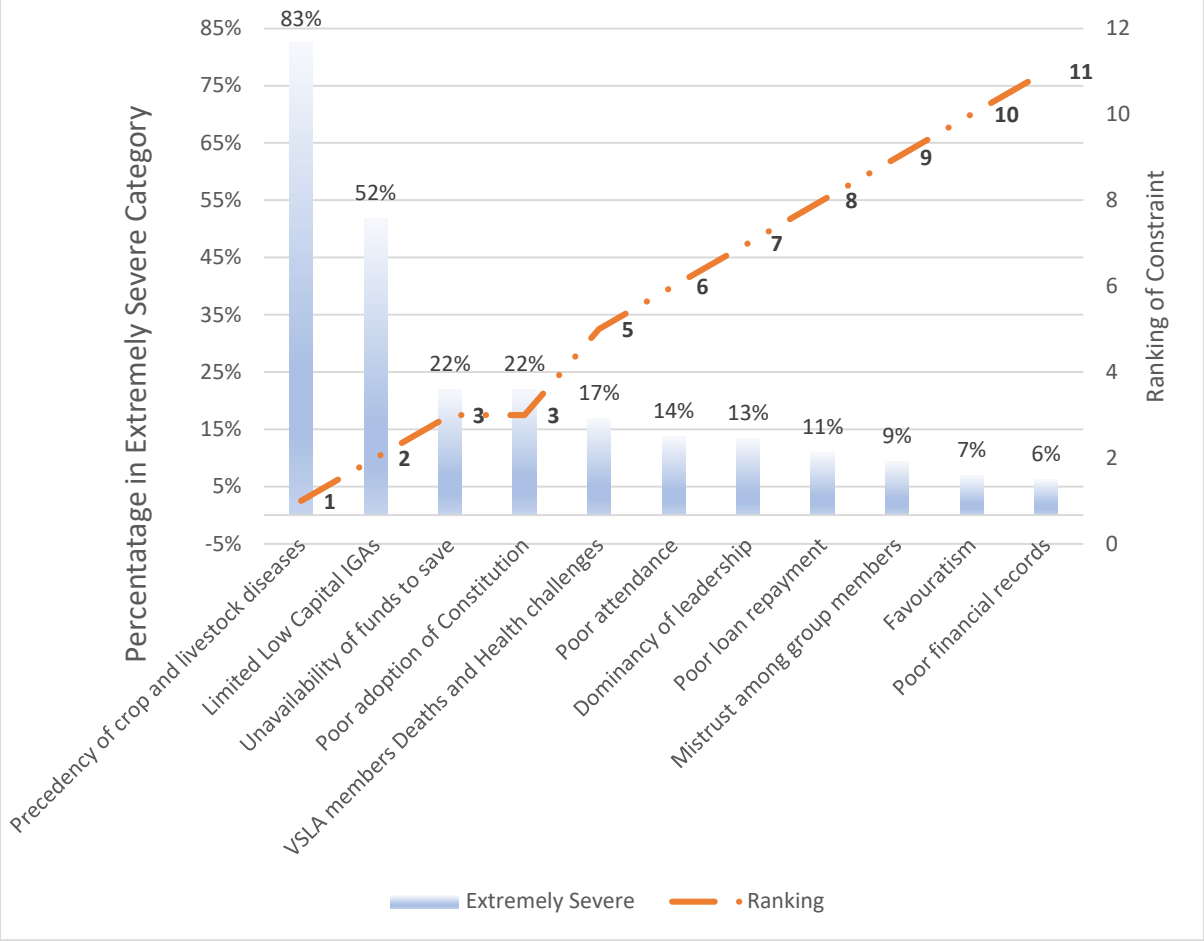

Figure 9 VSLA Constraints

The top ranking constraints were precedency of crop and livestock diseases which affected their saving patterns (83%), limited options for low capital income generating activities (52%), unavailability of funds to save (22%), and poor adoption of constitution (22%). The least ranking was poor financial records (6%), favoritism in loan disbursement (7%), mistrust among group members (9%), and poor loan repayment (11%).

4.3.11 Relative governance and administrative "smoothness" of VSLA activities

Relative governance and administrative "smoothness" of VSLA activities were deduced from the success factors and constraints. It was noted that a VSLA should score high (five) in the success drivers and score low (one) in the constraints for it to be both successful and sustainable. The maximum difference between the highest score and the lowest score would be four. Therefore an average of all the constraints was then subtracted from the average of all the success factors and a score of one was added to obtain a score out of five as depicting the relative governance and administrative "smoothness" of VSLA activities.

$$\textbf{\textit{Smoothness of VSLAs Activities}} = Average\ Score\ of\ Success\ Factors - Average\ score\ of\ Constraints + 1$$

The score was categorized into low (0 - 2.5), average (2.5 - 3.0), and high (3.0 – 5.0). The following table summarises the results:

Table 9 VSLA Activities Level of Administrative and Governance Smoothness

Administrative and Governance "Smoothness"	Low	Average	High	District
Average Score	1.81	2.75	3.94	3.10
Percentage in the category	15.9%	42.2%	41.9%	100%

The relative administrative and governance "smoothness" of VSLA activities was an average of 3.10 for the district. This is slightly in the high category. Category results indicated that 15.9% of VSLAs had a low administrative and governance "smoothness" score averaging 1.81, 42.2% were in the average score category with a category average of 2.75, and lastly 41.9% were in the high score category with an average category score of 3.94.

4.4 Discussion of results

The following section discusses the research findings and links them to relevant literature.

4.4.1 Discussion on Demographic Characteristics of Participants

VSLA participation is dominated by females. The survey results indicated that 95.3% of all the VSLA participants were female. Wheaton (2019) postulated that 80% of savings group members worldwide are women. This assertion was based on facts gathered through the 2019 SAVIX data. There was also a high rate of literacy in VSLA household heads with 75.4% of all the respondents having attained at least secondary level. Statistics from the Macrotrends website confirm that by 2022 Zimbabwe had a literacy rate of 89.85%. People above the age of fifteen who are literate and have a basic comprehension of short-term, everyday situations are considered literate. The VSLA approach employs adult skills to guarantee that all groups benefit from it, since it was intended for participants who were literate and illiterate (IRC, 2012). Therefore, literacy has been a crucial element of the VSLA technique, since it dictates the type of support and record-keeping procedures that the group would follow.

The VSLA methodology also proved to be a livelihood option for the single, divorced, and widowed as they accounted for almost one-third of all the respondents (30.4%). Participation of single parents, divorcees, and widowers is evidence enough that VSLA can break the vicious poverty cycle. It also testifies to the claim by Giacovas-Marinell, 2022 that VSLAs are inclusive of small-member-run microfinance groups enabling those living in poverty to build and take loans at low interest rates. About 77.9% of the participants were in the average to low wealthy score category with the remaining 31.3% having a high wealthy score. A total of 12.5%

of the participants were also receiving food aid as they qualified in assessments of vulnerable households eligible for receiving food aid.

Only 6.3% were able to access formal loans from established Microfinance Institutions such as Steward Bank, CABS, CBZ, and Zimbabwe Women's Bank. Jan, Munir, & Rehman, (2011) cited in Alesane A., Yussif, Tetteh Anang, & Read, (2020), testify to these findings as they claim that, despite an increase in the number of registered financial organizations offering loans to customers, the impoverished still choose to obtain their financing via unofficial sources. Other researchers also confirmed that poor people shy away from formal financial institutions (Agrawal, Sahoo, & Dasha, 2009; Anang, Dawuda, & Imoro, 2015; Dziwornu & Anagba, 2014; Mumin, Razak, & Domanban, 2013). The bulk of the participants, 53.1%, loaned small amounts for buying airtime from mobile wallet platforms such as Ecocash and One Money.

In terms of productive assets, VSLA households had an average of 3 acres of land, 3 goats, 2 cattle, and 1 ox-drawn implement. This is evidence of one of the objectives of participating in VSLA which is to enhance the poor people's capacity to build assets through savings rather than increasing risk exposure by taking out loans (AYEDI, 2018). Most of these participants are still in the early stages of building assets with a few who are now established.

4.4.2 Discussion on VSLA Participants' Sources of Livelihoods and Income-Generating Activities

Farming or agricultural activities, hired labor and petty cash trading were the most utilized livelihood options by 92.8%, 68.1%, and 66.3% of surveyed households, respectively. This is in line with Gunne, (2023) who mentioned that smallholder female farmers and small-scale female businesses from rural regions make up the majority of VSLA group members in Zimbabwe. ICRM established six by three-hectare gardens, with solar-powered irrigation systems and membership of at least 60 in each garden across all the project wards. Guided by constitutions, all garden members are utilising VSLAs to maintain garden assets, and collectively bridge access to both output and input markets. In addition to horticulture, they are also venturing into aquaculture and poultry as their main IGAs. The least utilized livelihood options were rentals, service provision, and handouts which constituted 3.4%, 5.0%, and 8.1% respectively. Zambuko Resilience Initiative and ICRM, through CIMMYT interventions, have managed to establish matching grants in which a farmer contributes 40% and received implements of their choice to be local farmers' service providers (LFSP). These implements ranged from two-wheeler walking tractors, multi-grain shellers, and ripper-tynes for service provision to the locals as an income-generating activity.

4.4.3 Discussion on Characterisation of VSLA Methodology

VSLA methodology should be religiously followed. It covers critical aspects such as group formation and training, objectives for saving, record-keeping practices, and the level of engagement in sustainable public-private partnerships (PPPs). Many guidelines have been developed to come up with a standard operation procedure (SOP) on how to administer VSLA methodology, paying close attention to the detailed benchmarks (CARE, 2024). The research findings, from key informant interviews conducted with Zambuko and ICRM project field officers, indicated that the project has been adopting all the core principles in various SOPs for VSL rolling out (Refer to Chapter 7 appendix 7.7.1). These SOPs or facilitator guides also align with ones developed by the International Labor Organization, (2017), Bantwana Initiative (2018), and We Effect (2024). Africa Trust (2023), in citing the importance of record keeping as one of the core modules in VSLA SOP, mentioned that failure to acknowledge correct accounts in record keeping will result in loss of trust among group members which is detrimental to sustainability. Members should self-select to anchor trust (Bantwana, 2018). The interviewed VSLAs are riding upon PPPs established with N Richards, Farm and City, and Seed Houses (SeedCo, Agriseeds, Syngenta, Easi Trade, SFL, and ZSS) for both input and output linkages. These have created sustainable win relationships.

4.4.4 Discussion on Key VSLA Success Drivers

The top-ranking success drivers were self-selection of group members, equal chances in accessing loans, transparency in leadership selection, saving in foreign currency which is relatively stable, appropriate interest rate and length of the saving cycle, transparency in financial records, appropriate loan repayment period, and access to group monitoring and training. The lowest ranking was private sector linkages, engagement in income-generating activities, good attendance at savings meetings, and appropriate group size. There is a vast literature that acknowledges the relevance of these success drivers. As earlier alluded to by Bantwana, 2018, members should self-select to anchor trust. Trust among VSLA members should also be reinforced by proper and transparent financial records (Africa Trust, 2023 & We Effect, 2024). AFARD (2020) postulated that the loan repayment period is critical, it should be in the range of 1 to 4 months to promote agricultural investment and productivity. Saving in foreign currency is one of the most adaptive ways adopted by VSLA (Saungweme & Kashora, 2021). The group size was the least important among success factors. Here are diverging views on group sizes with other SOPs advocating for group sizes of not less than 15 members (Bantwana, 2018) and others indicating that there is no limit to group member size as some might have as few as 9 members. Group sizes are essential for collectively accessing output

and input markets, however, increasing membership comes with a cost of reduced governance and administrative efficiency.

4.4.5 Discussion on Key VSLA Constraints

The top ranking constraints were precedency of crop and livestock diseases which affected their saving patterns, limited options for low capital income generating activities, unavailability of funds to save, and poor adoption of the constitution. The lowest ranking was poor financial records, favoritism in loan disbursement, mistrust among group members, and poor loan repayment. Dating back to 2019, drought, and crop pests and diseases affected 54% and 47% of the households in Masvingo district respectively (ZimVac, 2019). Recently, Obert Jiri cited in Herald on the 19th of January 2024, mentioned that within a week, 49 cattle had died due to poor pastures and rainfalls induced by El Nino in Masvingo, Midlands, Matabeleland North, and South bringing the number of cattle that had suffered to El Nino in 2023 to 2024 to 9875. In early February, the Chikava and Njovo area (Ward 18) and Chebvute (Ward 17), were hard hit by a hail storm which destroyed almost all the few crops that had survived the El Nino-induced mid-season dry spell. Of the interviewed households, 92.8% indicated farming as their primary livelihood, limiting investments in agricultural activities. This therefore limited income sources and increased the risk of poor loan repayment and loan write-offs. In line with the research findings, other organizations have incorporated proper guidance on how to disburse loans to avoid favoritism, increase efficiency, and prevent or reduce conflicts (WVI, 2017).

4.4.6 Discussion on Relative governance and administrative "smoothness" of VSLA activities

The relative administrative and governance "smoothness" of VSLA activities was an average of 3.10 out of 5 for the district. Only 15.9% of VSLAs had a low administrative and governance "smoothness" score averaging 1.81 out of 5, with 41.9% having in the high score category with an average category score of 3.94 out of 5. These can be explained by the religious adoption of VSLAs SOPs and riding on PPPs. However, constraints such as El Nino induced mid-season dry spell, among others, reduced the average district score.

4.5 Recommendations

The following section outlines the possible recommendations based on generalising the research findings:

1. Social fund portfolio: Only 9% of the 149 VSLA had a social fund portfolio for emergencies including bereavement. VSLA groups should adopt social fund portfolio to increase the

benefits of pulling resources together. Funeral service providers should also capitalize on this initiative and design funeral policy products that can incorporate the VSLA.

2. Public-private partnerships: input and output linkages created a value for engagement with Farm and City, N Richards, and seed houses. In return, the benefits were reduced transport costs for accessing inputs, access to high value markets and also capacity building. Development practitioners should enhance PPPs to increase the benefits thereof of VSLAs.

3. Saving for transformation: saving objectives should not only focus on household furniture and kitchen utensils. VSLAs should be capacitated to save for accumulation of productive assets compared to consumables.

4. Diversification of income generating activities (IGAs): crop and livestock production was adversely affected by El-Nino enduced mid-season dry spell and hail storm. VSLA members should consider climate adaptation and engage in climate-smart relevant IGAs.

5. Scaling up capacity building: 15.9% of VSLAs had a low administrative and governance "smoothness" score averaging 1.81 out of 5. Relevent development practitioners should increasing capacity building of the specific groups whose scores were low. In addition, inter VSLAs look and learn or exchange visits should be organized considering that 41.9% of the VSLAs were in the high score category with an average category score of 3.94 out of 5.

4.6 Conclusion

The study unveils the methodologies being adopted in implementing VSLA activities in Masvingo, Zimbabwe. It further unpacks the constraints and success drivers thereof. By closely following up on the research findings, policy makers and development practitioners can adopt, scale and improve governance and administrative "smoothness" of VSLA activities. By closely analyzing the VSLA saving objectives, private sector firms can develop customized products that best suit the needs of the VSLA households and also track on their savings and spending patterns.

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CHAPTER 5

ASSESSING THE CONTRIBUTION OF VSLA ACTIVITIES TO FOOD AVAILABILITY, ACCESSIBILITY, STABILITY, AND UTILIZATION IN MASVINGO DISTRICT.

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Abstract

Food insecurity discourages foreign investment in the agricultural sector as it raises the cost of labor albeit being a crucial input. Ogwal, Obici, and Mwesigwa, (2022) in their study in Uganda, concluded that VSLAs activities affect food availability, food accessibility, and food stability. This paper gathers evidence from 320 households, representative of 149 VSLA participants, in Masvingo District to quantify the extent to which VSLA activities contribute to the food security pillars. It further robes in the Household Dietary Diversity Score (HDDS) and the dimension of relative governance and "smoothness" of VSLA activities. A Chi-square statistic ($\chi^2(4)$) of 309.888, significant at 1% indicated a strong positive association between Household Dietary Diversity Scores (HDDS) and the level of engagement in VSLA activities. Households highly engaged in VSLA activities had a significant proportion (88.0%) of their members in the high HDDS (10-12) category. Chi-square analysis of HDDS against the level of relative governance and administrative smoothness was significant at 1% with a Chi-square statistic of 21.9 (χ^2 (4)). There was a strong, positive, and significant ($p< 0.001$) correlation between the level of VSLA Engagement and the Household Dietary Diversity score. Utilization had the smallest Pearson Correlation coefficient of 0.452 compared to availability (0.592). The researcher therefore recommends development practitioners to scale up capacity building of VSLA to reap the positive effects of VSLA activities. In addition, these must be interwoven with other interventions as they only explain less than 60% of the variations in HDDS.

Key Words: Village Savings and Loans Association, Household Dietary Diversity Score, Administrative Governance, VSLA Activities, Food Security

5.1 Introduction

The rate at which the VSLA methodology is being massively adopted by many organizations, including governments, as part of their livelihoods programming has triggered significant attention. As of 2021, according to CARE's 2021 VSLA's annual report, a total of 28, 846 VSLAs comprising 199,539 participants, 158,159 being women, had been established in Zimbabwe alone. On a global scale, CARE's VSLA's footprint had cumulatively impacted 13.7 million people, 25 percent being youths. Many studies have concluded that Village Savings and Loan Associations (VSLAs) can be used to address food insecurity (BARA and IPA 2013; Chivasa, 2020; Gash and Odell, 2013; Hongo, 2013; Moyo & Chinoda, 2022; Ogwal, Obici, and Mwesigwa, 2022). The research paper employs statistical inferences to

quantify the extent to which VSLA activities contribute to food security using the four pillars (availability, accessibility, stability, and utilization) and HDDS as indicators or proxies to household food security status. The author acknowledges that HDDS is unable to indicate food security status at the individual level as it uses the household as a sampling unit.

5.2 Material and Methods

The following section summarises the research design, sampling procedure, data collection, data analysis, and challenges encountered during data collection.

5.2.1 Description of the study area

The research was conducted in Masvingo District covering covering wards 12 (Nemamwa), 16 (Mazanhi and Chatikobo), 17 (Chebvute,), 18 (Njovo and Chikava), 19 (Gwatinyanya Mututu and Mapanzure) and 25 (Nyajena and Mashapa). (Refer to Chapter 3 section 3.2).

5.2.2 Research Design

A mixed-method research approach was used for gathering and analyzing numerical and qualitative data, a mixed-method research approach was used. (Refer to chapter 3 section 3.3)

5.2.3 Sampling procedure

The research used a sample size of 320 respondents from wards 12,16,17,18,19 and 25. The sampling procedure was both purposive (project beneficiaries and specific wards) and random (selection of volunteer participants (VSLA group representatives). (Refer to Chapter 3 section 3.4)

5.2.4 Data collection procedure

The study used both qualitative and quantitative data. Desk review, key informant interviews, focus group discussion, observations and household survey were used to collect data. (Refer to chapter 3 section 3.5)

5.2.5 Data analysis procedure

Descriptive statistics such as means, frequency distributions, percentages, variances, and standard deviations were used to summarize household socioeconomic and demographic variables. Statistical Package for Social Sciences (SPSS) and Excel Spreadsheet were used to analyze and summarise qualitative and quantitative data. (Refer to Chapter 3 section 3.6)

5.2.6 Challenges Encountered during Data collect

The geographical nature of the location posed a challenge considering VSLA participants from the six project wards were the targeted sample. The research covered six wards which are geographically spaced. The furthest ward is 95km away from Masvingo town with the closest being 27km away. Mobilization, sensitization, and synchronization of household interview schedules with other field activities was a challenge as this sometimes conflicted with

respondents' schedules for other livelihood activities. Fuel costs for mobility and data collection were high as the research was self-sponsored. The researcher had to translate some variables into vernacular to ensure that respondents and community-based facilitators who assisted in data collection would understand. Sometimes the researcher followed up with phone calls where critical information from the respondents was missing. Physical questionnaires were administered hence the costs of producing survey tools.

5.3 Results

The research findings were derived from a total of 320 VSLA participants from six wards, that is wards 12, 16, 17, 18, 19, and 25 of Masvingo District. These respondents represented a total of 320 households that were beneficiaries of either the Zambuko Resilience Initiative or Integrated Climate Risk Management (ICRM) projects. These households were also representative of 149 VSLAs. The following figure summarizes the distribution of sampled VSLAs across wards.

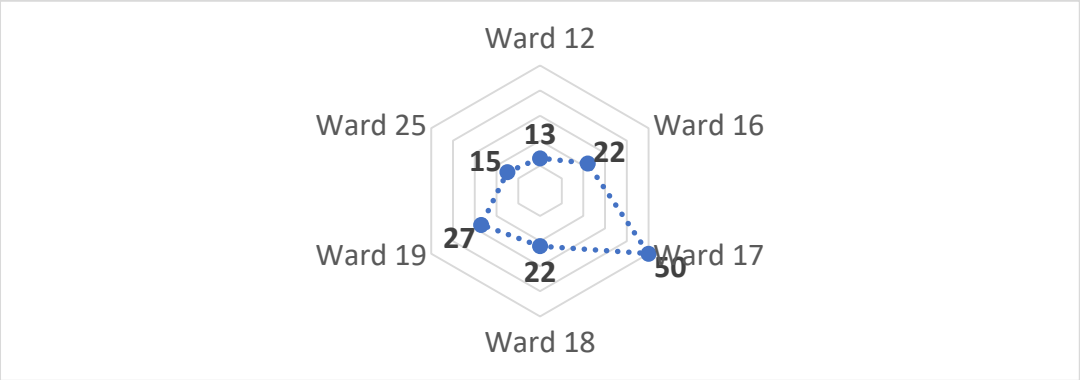

Figure 10 Distribution of sampled VSLAs across project wards

It was noted that Ward 17 had the highest number of VSLA interviewed considering its coverage as it is one of the biggest wards in the project area followed by Wards 19 and 16.

5.3.1 Household Dietary Diversity Score (HDDS) and VSLA Activities

A Pearson Chi-square test was run for HDDS against VSLA activities' level of engagement. The following table summarises the results:

Table 10 Household Dietary Diversity Score (HDDS) and VSLA Activities

		Level of Engagement in VSLA Activities		
		Low (0-2.5)	**Moderate (2.5-4.0)**	**High (4.0-5.0)**
		Row N %	Row N %	Row N %
HDDS_Cat	0-6	90.7%	9.3%	0.0%
	7-9	35.2%	63.0%	1.9%
	10-12	0.0%	12.0%	88.0%
Pearson Chi-square Tests		309.888		
HDDS_Cat df		4		
Sig.		.000**		

The level of engagement in VSLA activities was determined by tracking household expenditure patterns using VSLA funds, the number of times VSLA loans have been accessed by respondents in the previous six months of the last saving cycle, the number of VSLA meetings attended during the reporting period and lastly number of times the individual has received shareouts since joining VSLA. The survey results show that there is an association between engagement in VSLA activities and HDDS. The Chi-square statistic was significantly high (χ^2 (4)= 309.888; p< 1%). 90.7% of participants who had a low HDDS had also a low level of engagement in VSLA activities. Those who were moderately engaged in VSLA activities (63%) had also an average HDDS Score of 7 to 9. Lastly, 88% of those in the high HDDS category also scored high in the level of engagement in VSLA activities.

5.3.2 Household Dietary Diversity Score (HDDS) against the Governance and Administrative "Smoothness" of VSLA

Relative governance and administrative "smoothness" of VSLA activities were deduced from the success factors and constraints. It was noted that a VSLA should score high (five) in the success drivers and score low (one) in the constraints for it to be both successful and sustainable. The maximum difference between the highest score and the lowest score would be four. Therefore an average of all the constraints was then subtracted from the average of all the success factors and a score of one was added to obtain a score out of five as depicting the relative governance and administrative "smoothness" of VSLA activities.

$$\textbf{\textit{Smoothness of VSLAs Activities}} = Average\ Score\ of\ Success\ Factors - Average\ score\ of\ Constraints + 1$$

The score was categorized into low (0 - 2.5), average (2.5 - 3.0), and high (3.0 – 5.0). A Pearson Chi-square test was run for HDDS against the Governance and Administrative "Smoothness" of VSLA. The following table summarises the results:

Table 11 Governance and Adminstrative "smoothness" of VSLA Activities against HDDS

		Governance and Administrative "Smoothness" Category		
		Low (0-2.5)	**Moderate (2.5-3.0)**	**High (3.0-5.0)**
		Row N %	Row N %	Row N %
HDDS_Cat	0-6	35.2%	38.9%	25.9%
	7-9	13.4%	43.5%	43.1%
	10-12	6.0%	40.0%	54.0%
Pearson Chi-square Tests		21.9		
HDDS_Cat df		4		
Sig.		.000**		

The survey results showed that there is an association at a 1% significance level between Governance and Administrative "Smoothness" and HDDS. The chi-square statistic was small, 21.9, signifying that there is a strongly significant but weak relationship.

5.3.3 VSLA Activities and Food Availability, Accessibility, Utilisation and Stability

Food security encompasses four main pillars which are availability, accessibility, utilization, and stability. A bivariate analysis was run between the level of engagement in VSLA activities and these four pillars of food security. The level of engagement in VSLA activities was maintained as a continuous variable ranging from 0 to 5. The following table summarises the results:

Table 12 VSLA Activities and Food Security Pillars

Food Security Pillar		**Food Availability**	**Food Accessibility**	**Food Stability**	**Food Utilization**
Average		3.11	3.10	3.36	3.73
VSL Activities	Pearson Correlation	0.592	0.527	0.418	0.451
	Sig. (2-tailed)	.000***	.000***	.000***	.000***
	N	320	320	320	320

There was a positive correlation between the level of engagement in VSLA activities and food security pillars. All the relationships were significant at a 1 percent level. Level of engagement in VSLA activities explained only 59.2%, 52.7%, 41.8%, and 45.1% change in food availability, accessibility, stability, and utilization respectively. This is an indication that there are also other explanatory variables to the food security pillars besides the level of engagement in VSLA activities.

5.4 Discussion of Results

The following section unpacks and discusses the findings of the research and gives links to the findings of relevant studies.

5.4.1 Discussion on Household Dietary Diversity Score (HDDS) and VSLA Activities

HDDS is a proxy measure of the economic ability of a household to access a variety of foods, and an increase in dietary diversity is associated with socioeconomic status and household food security (Awoyemi, Issahaku, & Awuni, 2023). The Pearson Chi-square test results indicate a strong association between the level of engagement in VSLA activities and HDDS. The Chi-square statistic was significantly high (χ^2 (4)= 309.888; p< 1%). Those who were moderately engaged in VSLA activities (63%) had also an average HDDS Score of 7 to 9. Lastly, 88% of those in the high HDDS category also scored high in the level of engagement in VSLA activities. VSLA Activities included collective access to agricultural inputs, groceries,

household furniture, and kitchen utensils. The variable also factored in the frequency at which the participant accessed loans from the VSLA and the number of shareouts that the participant has received since joining the VSLA. In line with the research findings, studies in Mozambique claimed that VSLA activities increase months of food security and child dietary diversity (Brunie, Fumagalli, Martin, Field, & Rutherford, 2014). Hongo (2013) also concluded that the VSLAs approach enhanced the ability of women in Bondo District, Kenya, to produce more food, and purchase food of higher quality and quantity. Therefore, scaling up and creating an enabling environment for VSLA activities will be a step ahead towards ensuring food security.

5.4.2 Discussion on Household Dietary Diversity Score (HDDS) against the Governance and Administrative "Smoothness" of VSLA activities

The Pearson Chi-square test results indicate a strong association between HDDS and the level of governance and administrative "smoothness" of VSLA activities. The Chi-square statistic from the research findings was significant (χ^2 (4)= 21.9; p< 1%). The level of governance and administrative "smoothness" was derived by subtracting the average score of success factors from that of constraints and adding a score of one to the difference (Refer to Chapter 3 subsection 3.6). All the identified key success drivers and constraints are critical to ensure that the impact of VSLA activities on HDDS is maximized. To mention a few, a study conducted by Mwansakilwa, et al., (2017) in Zambia, concluded that the level of trust among VSLA members was a key driver of success. The study highlighted that VSLAs characterized by high levels of trust among members were able to foster collaborative decision-making, reduce conflict, and promote collective accountability. Building trust within VSLAs is essential for smooth functioning, that is governance and administrative "smoothness" of VSLA activities, and sustainability. Bantwana, 2018, concluded that VSLA members should self-select to anchor trust. Trust among VSLA members should also be reinforced by proper and transparent financial records (Africa Trust, 2023 & We Effect, 2024). Referring to constraints, other organizations have incorporated proper guidance on how to disburse loans to avoid favoritism to increase efficiency, and prevent or reduce conflicts (WVI, 2017).

5.4.3 Discussion on VSLA Activities and Food Availability, Accessibility, Utilisation and Stability

Level of engagement in VSLA activities explained only 59.2%, 52.7%, 41.8%, and 45.1% change in food availability, accessibility, stability, and utilization respectively. All the relationships were significant at a 1 percent level (p< 0.001). The research findings are in line with previous studies. ` Access to loans and cash from VSLA is a pillar of the activities that enhance the utilization, accessibility, availability, and stability of food hence improving

household well-being and food security (RAFFS, 2011). VSLA activities explain 45.1% to 59% of the variations in household food security pillars. There are also other explanatory variables to the food security pillars besides the level of engagement in VSLA activities which needs to be researched on.

5.5 Recommendations

This section summarises recommendations that can enhance the food security status of households:

1. Capacity building: there was an association (χ^2 (4)= 21.9; p< 1%) between the level of HDDS and the level of governance and administrative smoothness of VSLA activities. Relevant development partners must delve deep and support VSLA in areas that are compromising their level of governance and administrative smoothness. All the benchmarks for establishing and monitoring VSLA must be religiously followed to enhance the food security of all households in Zimbabwe.

2. Embracing an all-inclusive approach to food security: VSLA activities explain 45.1% to 59% of the variations in household food security pillars (p < 1%). Although the percentage is significant, there are also other variable that affects food security. Development practitioners should consider layering other innovations on the activities of VSLA to enhance food security

3. Scale up private-public partnerships (PPPs): The Pearson Chi-square test results indicate a strong association between the level of engagement in VSLA activities and HDDS. The Chi-square statistic was significantly high (χ^2 (4)= 309.888; p< 1%). PPPs would result in enhanced support to the VSLA as some private sector firms or relevant line ministries offer extension and advisory and linkages for both input and output markets. This creates a value proposition and raises awareness. Working hand in glove with local leadership will also enhance participation and guarantees a form of security for the VSLA funds. Local leaders stamp VSLA constitutions, create awareness of the methodology in local gatherings, and can also be engaged in resolving conflict among VSL members on diverse issues including poor loan repayment.

5.6 Conclusion

The research findings indicate that there is a strong association between the level of engagement in VSLA activities and HDDS (χ^2 (4)= 309.888; p< 1%), HDDS and level of governance and administrative smoothness of VSLA activities ((χ^2 (4)= 21.9; p< 1%) and lastly, VSLA activities explained 45.1% to 59% of the variations in household food security pillars (p < 1%). The research concludes that the VSLA methodology must be adopted as a foundation for layering development interventions that trigger increase in Household food security. The methodology also proved not to be all-sufficient without layering and tapping

into relevant PPPs as it explained only 59.2%, 52.7%, 41.8%, and 45.1% change in food availability, accessibility, stability, and utilization respectively. At least, 40% of variation is not explained.

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CHAPTER 6

AN ANALYSIS OF THE DETERMINANTS OF HOUSEHOLD DIETARY DIVERSITY SCORES (HDDS) OF VSLA PARTICIPANTS.

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Abstract

The VSLA methodology has been massively adopted over the past years. As of 2018, seventy-five nations in Latin America, Asia, and Africa, had adopted the model, and seventy-eight percent of participants were women (Mbiro & Ndlovu, 2021). According to CARE's 2021 VSLA's annual report, a total of 28, 846 VSLAs comprising 199,539 participants, 158,159 being women, had been established in Zimbabwe alone. However, the methodology only explains a certain proportion of the changes in HDDS. This paper therefore used a multinomial logistic regression to examine the determinants of household dietary diversity scores in 320 households, representative of 149 VSLA participants, in the Masvingo District. The final model fit well (χ^2 (28) = 417.74, P < 1% & Nagelkerke Pseudo R-square = 0.890). The Deviance Chi-square confirmed the goodness of fit (χ^2 (610) = 129.848, P = 1). The significant predictors (P < 5%) identified in the likelihood ratio tests included VSLA activities, post-harvest handling and storage (PHHS) practices, administrative efficiency, household size, land size, savings cycle, remittances, and formal employment. There was a significant association (P < 5%) in the increased multinomial log odds ratios of being in the moderate (7-9) and high (10-12) HDDS score categories, relative to low (0-6) HDDS when households increased or improved VSLA engagement activities, governance and administrative smoothness of VSLA activities, household head's level of education, level of crop diversification and PHHS practices. On the other hand not having formal employment and not receiving remittances in the past 6 months were associated with lower odds ratios of being in the moderate (7-9) and high (10-12) HDDS score categories. Policymakers and relevant stakeholders in the development space are to get insight from these research findings as this will guide the implementation of various food security interventions having VSLA as a foundation for layering activities.

Key Words: Village Savings and Loans Associations (VSLA), Household Dietary Diversity Score (HDDS), Determinants, Food Security, Governance.

6.1 Introduction

Masvingo Province has been trending, dating back to 2016, on the list of provinces experiencing the highest rates of food insecurity in Zimbabwe (FAO, 2022). Many factors have been identified to affect food security including low income (Akbar, Darma, Fahmid, & Irawan, 2023) or low economic stability (Awoyemi, Issahaku, & Awuni, 2023), unequal distribution of wealth (Harris-Fry, et al., 2015), structural barriers (Kehinde M. , Shittu, Adeyonu, & Ogunnaike, 2021) and social support networks and community resources (Muhialdin, Filimonau, Qasem, & Algboory, 2021), to mention a few. Consequently, Village

Savings and Loan Associations (VSLAs) have become a popular and effective approach to financial inclusion in many developing countries (Bannor, Oppong-Kyeremeh, Derkyi, Adombila, & Amrago, 2020). The VSLA methodology has been massively adopted over the past years, with CARE's 2021 VSLA annual report indicating that a total of 28, 846 VSLAs comprising 199,539 participants, 158,159 being women, had been established in Zimbabwe alone as food security coping mechanism.

Findings from Chapters 4 and 5 also give the researcher insight into the appropriate model. A few beneficiaries were receiving food and cash assistance (12.5%). There was evidence of multiple participation in VSLA with 73.1% of respondents participating in at least two groups. Adoption of social funds portfolio was still low (9%). The main objectives for saving were characterized by access to household furniture and kitchen utensils (42%), cash savings (42%), collective access to farm inputs and implements (36%), and groceries (24%). Financial (savings, miscellaneous, loans, and cash book), and non-financial (attendance register, constitution and minute book) records were kept to enhance VSLA's relative governance and administrative efficiency which was at 3.10 out of 5. Main Income Generating Activities (IGAs) that were being utilized, in ranking order of importance and respective of the percentage of participants utilizing the options, included farming (92.8%), hired labor (68.1%), petty cash trading (66.3%), remittances (21.3%), formal employment (18.4%), pension (10.9%), handouts (8.1%), service provision (10.9%) and lastly rentals (3.4%).

There was a strong positive association between HDDS and the level of engagement in VSLA activities (($\chi^2(4)$) of 309.888, p<1%). Chi-square analysis of HDDS against the level of relative governance and administrative "smoothness" was also significant at 1% (χ^2 (4) = 21.9). Bivariate analysis confirmed level of engagement in VSLA activities explaining only 59.2%, 52.7%, 41.8%, and 45.1% variations in food availability, accessibility, stability, and utilization respectively. The research therefore rides on this background to analyze the determinants of HDDS as a proxy to food security among VSLA participants' households.

6.2 Material and Methods

The following section summarises the research design, sampling procedure, data collection, data analysis, and challenges encountered during data collection.

6.2.1 Description of the study area

The research was conducted in Masvingo District covering covering wards 12 (Nemamwa), 16 (Mazanhi and Chatikobo), 17 (Chebvute,), 18 (Njovo and Chikava), 19 (Gwatinyanya Mututu and Mapanzure) and 25 (Nyajena and Mashapa). (Refer to Chapter 3 section 3.2).

6.2.2 Research Design

A mixed-method research approach was used for gathering and analyzing numerical and qualitative data (Refer to chapter 3 section 3.3).

6.2.3 Sampling procedure

The research used a sample size of 320 respondents from wards 12,16,17,18,19 and 25. The sampling procedure was both purposive (project beneficiaries and specific wards) and random (selection of volunteer participants (VSLA group representatives). (Refer to Chapter 3 section 3.4)

6.2.4 Data collection procedure

The study used both qualitative and quantitative data. Desk reviews, key informant interviews, focus group discussions, observations, and household surveys were used to collect data. (Refer to chapter 3 section 3.5)

6.2.5 Data analysis procedure

Descriptive statistics such as means, frequency distributions, percentages, variances, and standard deviations were used to summarize household socioeconomic and demographic variables. Statistical Package for Social Sciences (SPSS) weas used to analyze and summarise qualitative and quantitative data. (Refer to Chapter 3 section 3.6)

6.2.6 Challenges Encountered during Data collect

The study was conducted in six wards which are geograohically space with the furthest ward being 95km away from Masvingo town and the closest being 27km away. Mobilization, sensitization, and synchronization of household interviews with other field activities became a mammoth task. Sometimes appointments would conflict with respondents' schedules for other livelihood activities. Motorbike fuel costs for data collection and airtime for communication were high as the research was self-sponsored. Communication barriers and interpretation of the questionnaire also surfaced as a challenge. The researcher had to translate some variables into vernacular to ensure that respondents and community-based facilitators, who assisted in data collection, would correctly interpret the questionnaire. Sometimes the researcher made follow-ups on phone calls where critical information from the respondents' household questionnaire was missing. Physical questionnaires were administered hence shouldering the costs of producing survey tools.

6.3 Results

The following section summarises the research findings from the multinomial logistic regression model.

6.3.1 Determinants of VSLA Participants HDDS

A multinomial logistic regression analysis was used to analyze the factors influencing food security regarding the Household Dietary Diversity Scores (HDDS) of VSLA participants (Refer to Chapter 3 Section 3.6).

i. Model fitting information

The final model fit well (χ^2 (28) = 417.74, P < 1% & Nagelkerke Pseudo R-square = 0.890). The Deviance Chi-square confirmed the goodness of fit (χ^2 (610) = 129.848, P = 1). A significant proportion of the variance of HDDS is explained by the model. The following table presents the results of the Model fit and Goodness-of-Fit for the multinomial logistic regression:

Table 13 Multinomial Logistic Regression Model fit and Goodness-of-Fit

Model	**Model Fitting Criteria**	**Likelihood Ratio Tests**		
	-2 Log Likelihood	**Chi-Square**	**Df**	**Sig.**
Intercept Only	547.593			
Final	129.848	417.744	28	.000***
Pseudo R-squares				
Cox and Snell	0.729			
Nagelkerke	0.890			
McFadden	0.763			
		Goodness-of-Fit		
Deviance Chi-square test		129.848	610	1.000

ii. Likelihood Ratio Tests:

Variables that were significantly associated with HDDS, respective of their p-values included Monthly_Income (p = 0.008), VSL_Activities (p < 0.001), PHHS_score (p < 0.001), Admin_Efficiency (p = 0.037), HHSize (p = 0.009), Acres_land (p = 0.005), Saving Cycle_Cat (p = 0.048), Remittances_6months (p < 0.001) and Formal_Employment (p = 0.008).The following table summarises the results:

Table 14 Likelihood Ratio Tests for derterminants of VSLA Households HDDS

Likelihood Ratio Tests				
Effect	**Model Fitting Criteria**	**Likelihood Ratio Tests**		
	-2 Log Likelihood of Reduced Model	**Chi-Square**	**df**	**Sig.**
Intercept	129.848[a]	.000	0	.
VSL_Expenditure	133.638	3.790	2	.150
Monthly_Income	139.504	9.656	2	.008**
VSL_Activities	367.988	238.140	2	.000***

HHH_Edu_years	135.025	5.177	2	.075
PHHS_score	181.022	51.174	2	.000***
Admin_Efficiency	136.455	6.607	2	.037*
HHSize	139.255	9.406	2	.009**
Acres_land	140.301	10.453	2	.005**
Km_Shops	134.365	4.517	2	.105
HotCrop_Diversity	134.807	4.959	2	.084
HHFood_CashAid	130.182	.334	2	.846
SavingCycle_Cat	135.927	6.079	2	.048*
Remittances_6months	145.889	16.040	2	.000***
Formal_Employment	139.506	9.658	2	.008**

*Significance Level: * - 0.5%;** 1%, ***less than 1%*

iii. Parameter Estimates:

A multinomial logistic regression was computed with HDDS as the outcome. The three possible outcomes of the HDDS category included low HDDS (0-6), Moderate HDDS (7-9) and lastly high HDDS (10-12) category. The low HDDS (0-6) category was used as a reference category to base all explanations on the changes in the multinomial log odds of being in a specific category given a certain derteinant of HDDS. The following table summarises the outcome:

Table 15 Determinants of VSLA participants' HDDS

Model		**Parameter Estimates**				
HDDS Category	**Variable**	**B**	**Std. Error**	**Wald**	**Df**	**Sig.**
7-9	Intercept	- 22.265	3.885	32.851	1	.000***
	VSL_Expenditure	.002	.002	.540	1	.462
	Monthly_Income	.010	.005	3.963	1	.046*
	VSL_Activities	4.851	.789	37.772	1	.000***
	HHH_Edu_years	.203	.095	4.537	1	.033*
	PHHS_score	1.634	.543	9.053	1	.003**
	Admin_Efficiency	.620	.270	5.273	1	.022*
	HHSize	- .119	.116	1.050	1	.306
	Acres_land	- .098	.189	.267	1	.605
	Km_Shops	.005	.141	.001	1	.974
	HotCrop_Diversity	.496	.250	3.932	1	.047*
	HHFood_CashAid	- .076	.162	.222	1	.638
	[SavingCycle_Cat=0]	.848	.635	1.783	1	.182
	[SavingCycle_Cat=1]	0[b]	.	.	0	.
	[Remittances_6months=0]	- 1.838	.666	7.610	1	.006**
	[Remittances_6months=1]	0[b]	.	.	0	.
	[Formal_Employment=0]	2.289	.882	6.733	1	.009**
	[Formal_Employment=1]	0[b]	.	.	0	

10-12	Intercept	-215.854	74.309	8.438	1	.004**
	VSL_Expenditure	- .018	.011	2.666	1	.102
	Monthly_Income	.034	.016	4.184	1	.041*
	VSL_Activities	34.824	11.463	9.229	1	.002**
	HHH_Edu_years	.411	.379	1.176	1	.278
	PHHS_score	16.622	5.726	8.427	1	.004**
	Admin_Efficiency	- .344	.971	.125	1	.405
	HHSize	1.701	.890	3.651	1	.056
	Acres_land	- 2.080	.909	5.238	1	.022*
	Km_Shops	.948	.531	3.186	1	.097
	HotCrop_Diversity	1.225	.908	1.821	1	.077
	HHFood_CashAid	.238	.981	.059	1	.808
	[SavingCycle_Cat=0]	4.772	2.359	4.092	1	.043*
	[SavingCycle_Cat=1]	0[b]	.	.	0	.
	[Remittances_6months=0]	- 6.115	2.178	7.882	1	.005**
	[Remittances_6months=1]	0[b]	.	.	0	.
	[Formal_Employment=0]	5.979	2.862	4.366	1	.037*
	[Formal_Employment=1]	0[b]	.	.	0	.

a. The reference category is 0-6
b. The parameter is set to zero because it is redundant
*c. Significance Level: * - 0.5%;** 1%, ***less than 0.1%*

Determinants of a Moderate HDDS (7-9)

Variables that positively increased odds ratios of being in the moderate HDDS relative to the low HDDS category, respective of their Wald scores and multiplicative effect on the odds ratio (B) included Monthly household income (*Wald=3.963; B=0.01& P =0.046*), VSLA Activities (*Wald=37.772; B=4.851 & P = 0.000*), Household head education years (*Wald=4.537; B=0.203 & P = 0.033*), PHHS score (*Wald=9.053; B=1.634 & P =0.003*), relative governance and administrative efficiency of VSLA (*Wald=5.273; B=0.620 & P =0.022*), not being formally employed (*Wald=6.733; B=2.289 & P =0.009*) and level of Horticulture crop diversification (*Wald=3.932; B=0.496 & P =0.047*). On the other hand, not receiving remittances over the past six months (*Wald=7.610; B=-1.838 & P =0.006*) reduced the odds ratio of being in the moderate HDDS category relative to being in the low HDDS category.

Determinants of a High HDDS (7-9)

Variables that positively increased odds ratios of being in the high HDDS relative to the low HDDS category, respective of their Wald scores (wald), multiplicative effect on the odds ratio (B) and P-Value (P) included household monthly income (*Wald=4.184; B=0.034 & P=0.041*), engagement in VSLA Activities (*Wald=9.229; B=34.824 & P =0.002*), level of adoption of PHHS practices (*Wald=8.427; B=16.622 & P =0.004*), not having a saving cycle of less than 6 months (*Wald=4.092; B=4.772 & P =0.43*) and not being formally employed (*Wald=4.366; B=5.979 & P =0.037*). On the other hand not receiving remittances in the past 6 months

reduced the odds ratio of being in the high HDDS category (*Wald=7.882; B=-6.115 & P = 0.005*).

6.4.1 Discussion on Determinants of VSLA Participants HDDS

The research findings indicated that several variables significantly increased the odds ratios of being in the moderate and High HDDS category. These variables included household monthly income levels, engagement in VSLA activities, level of adoption of PHHS practices, level of relative governance, and administrative "smoothness" of VSLA activities and not being formally employed. Several studies support these findings. Level of income plays a role in how much autonomy and access to diverse foods a household can achieve (Chivasa, 2018). Addressing Post Harvest Losses (PHL) has been believed to be the bottom-up approach to increasing food security (SourceTrace, 2024). Tesfaye and Tirivayi, (2018), postulated that PHL exacerbates food insecurity and welfare losses of farming households in developing countries, use of improved PHHS technologies improves HDDS.

Formal employment significantly enhances food security in urban areas (Jordan, Waldman, Tuholske, & Evans, 2020). Inconsistency of income in informal employment households threatens food insecurity (Blekking, Waldman, Tuholske, & Evans, 2020). Contrary to this, the research findings indicated that not being formally employed increases the odds ratios of being in the moderate and high HDDS category. The bulk of the respondents, those who were formally employed, were civil servants. They had little to no access to arable land for establishing a horticulture garden or constructing a small fowl run for poultry projects hence low HDDS.

Having not received remittances in the past 6 months reduced the odds ratio of being in the moderate and high HDDS categories. In line with these findings, Abadi, Techane, Tesfay, Maxwell, & Vaitla, (2017), claimed that a significant proportion of remittance is spent on food items. Household head level of education and horticultural crop diversification only significantly affected the odds ratio of having a moderate HDDS relative to low HDDS. Increasing land ownership or holding large pieces of land reduced the odds ratios of being in the high HDDS category relative to low HDDS. Small pieces of land are easy to manage efficiently. Those with vast land tended to produce commercial crops such as tobacco which were not directly linked to immediate consumption of diversified foods.

Not having a saving cycle of less than 6 months increased the odds ratio of being in the high HDDS relative to low HDDS. The lengthening of the savings cycle increased the amount available for loaning. However proper financial record-keeping practices needed to be religiously adhered to. Distance from the market neither significantly affected the odds ratio of

being in the moderate nor high HDDS category. Empirical evidence suggests that households closer to market centers tend to have more diverse diets and are less food insecure than those farther away (Bannor, Oppong-Kyeremeh, Derkyi, Adombila, & Amrago, 2020). Contrary to that, VSLAs have been shown to defy the odds. Collective access to markets through VSLAs then renders distance from the market insignificant when considering the impact of distance from the markets on the multinomial log odds of a high or moderate HDDS relative to a low HDDS among the VSLA participants

6.5 Recommendations

The following recommendations can be drawn from the research findings:

1. ***Optimum allocation of land as a scarce resource:*** increasing the amount of land holding was associated with low odds of having a high HDDS score relative to low HDDS. Policies on land acquisition and distribution should advocate for optimum land ownership. This increases the efficiency of agricultural activities, reduces incidences of idle-arable land, and consequently improves household dietary diversity scores.
2. ***Intense monitoring and capacity building of VSLAs:*** the level of VSLA governance and administrative "smoothness" and level of engagement in VSLA activities increased the multinomial odd ratios of being in the moderate and high HDDS category. Relevant stakeholders and line ministries in the development space should continue to mentor and closely monitor VSLA to promote awareness of the methodology and also improve performance in terms of relative governance and administrative smoothness.
3. ***Promote investment in PHHS technologies:*** The level of adoption of PHHS practices increased the multinomial log odds of a moderate and higher HDDS score. Respondents in the study area were using metal silos, solar driers, grain protectants, and improved granaries as the adoption of recommended PHHS practices. PPPS should be established for designing, creating awareness, and improvement of PHHS technologies.
4. ***Improve access to education:*** The education level of Household heads increased the log odds of having a higher HDDS relative to low HDDS. The government should continue improving its policy framework in line with access to education as it enhances food security. In addition, this also enhances understanding of financial literacy principles which facilitates relative governance and administrative smoothness of VSLA activities. Household heads are also better equipped on making informed decisions on dietary requirements of the family as they plan and budget for balanced diets. They can also easily follow up on recipes used for preparation of wholesome meals.

6.6 Conclusion

The final model fit well (χ^2 (28) = 417.74, P < 1% & Nagelkerke Pseudo R-square = 0.890). The Deviance Chi-square confirmed the goodness of fit (χ^2 (610) = 129.848, P = 1). Variables that were significantly associated with HDDS, respective of their p-values included household access to monthly income (p = 0.008), level of engagement in VSLA activities (p < 0.001), adoption of PHHS practices (p < 0.001), relative governance and administrative efficiency of VSLA (p = 0.037), household size (p = 0.009), Acres to land (p = 0.005), length of saving cycle (p = 0.048), receiving remittances over the past 6 months (p < 0.001) and having household members who are formally employed (p = 0.008). The research concludes that VSLA has proven to be a potential foundation for layering in all food security initiatives. However, development practitioners should not wink a blind eye to the significance and relevance of these determinants of HDDS regards to VSLA participants.

6.7 References

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CHAPTER 7
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction

This chapter comprehensively summarizes the research findings that unveil the nexus between household food security and village savings and loan associations (VSLAs) in Masvingo District, Zimbabwe. The chapter explicitly unpacks the key findings that address the four objectives of the study- (1) To characterize the activities and implementation methodologies being employed by VSLAs in Masvingo District; (2) To identify the success factors and constraints, and then assess the governance and administrative "smoothness" of VSLA activities; (3) To assess the contribution of VSLA activities to food availability, accessibility, stability, and utilization; (4) To analyze the factors influencing food security in terms of the Household Dietary Diversity Scores (HDDS) of VSLA participants.

In addition, the chapter briefly summarises how the research was conducted to allow other researchers to replicate the study in diverse places to contextualize the outcomes where generalization based on these findings is not applicable. In conclusion, the chapter draws the relevant conclusions from the study, outlines the policy implications of the findings, and highlights areas for further research that remained grey in the study due to the delimitations.

7.2 Research summary

The research was conducted in Masvingo District covering wards 12 (Nemamwa), 16 (Mazanhi and Chatikobo), 17 (Chebvute and Manunure), 18 (Njovo and Chikava), 19 (Gwatinyanya Mututu and Mapanzure) and 25 (Nyajena and Mashapa). (Refer to Chapter 3 section 3.2). The research used a sample size of 320 respondents from wards 12,16,17,18,19 and 25. The sampling procedure was purposive (project beneficiaries and specific wards) and random (volunteer participants who were VSLA group representatives). A mixed-method research approach was used for gathering and analyzing numerical and qualitative data (Refer to Chapter 3 subsections 3.2-3.6). Chi-square and bivariate analyses were conducted. The research climaxed with a multinomial logistic regression analysis on the determinants of HDDS of VSLA participants.

The following summarises the outcomes from the research:

1. Activities and implementation methodologies being employed by VSLAs in Masvingo District:

A total of 69.7%) of households were male-headed and at least 75.3% of household heads had attained some secondary education. Only 6.3% and 53.1% of respondents had accessed loans

from Banks or Microfinance firms and mobile wallet services (EcoCash and One Money) respectively, 22.2% of the respondents had a high wealth status score and only 12.5% had accessed food and cash assistance. 73.1% of respondents participated in at least two groups. Adoption of social funds portfolio was low (9%). The main objectives for saving included collective access to household furniture and kitchen utensils (42%), cash savings (42%), farm inputs and implements (36%), and groceries (24%). Financial (savings, miscellaneous, loans, and cash book), and non-financial (attendance register, constitution, and minute book) records were kept. Main Income Generating Activities (IGAs), respective of the percentage of participants utilizing them included farming (92.8%), hired labor (68.1%), petty cash trading (66.3%), remittances (21.3%), formal employment (18.4%), pension (10.9%), handouts (8.1%), service provision (10.9%) and lastly rentals (3.4%).

2. Success factors and constraints, and the governance and administrative "smoothness" of VSLA activities.

The sustainability and effectiveness of the VSLA association hinged upon member self-selection, equal chances to access loans, transparency in leadership, saving in a stable foreign currency, appropriate saving cycle length, transparent financial records, appropriate loan repayment period, meaningful private sector public-private-partnership and access to group monitoring and training. However, precedency of crop and livestock diseases, limited low capital income generating activities, unavailability of funds to save, and poor adoption of constitutions adversely affected VSLA activities. VSLA's relative governance and administrative efficiency which was at 3.10 out of 5.

3. Contribution of VSLA activities to food availability, accessibility, stability, and utilization.

A Chi-square statistic ($\chi^2(4)$) of 309.888, significant at 1% indicated a strong positive association between Household Dietary Diversity Scores (HDDS) and the level of engagement in VSLA activities. Households highly engaged in VSLA activities had a 88.0% of their members in the high HDDS (10-12) category. Chi-square analysis of HDDS against the level of relative governance and administrative "smoothness" was significant at 1% (χ^2 (4) = 21.9). There was a strong, positive, and significant ($p< 0.001$) correlation between the level of VSLA Engagement and the Household Dietary Diversity score. Food Utilization had the smallest Pearson Correlation coefficient of 0.452 compared to food availability (0.592).

4. Factors influencing food security in terms of the Household Dietary Diversity Scores (HDDS) of VSLA participants.

The final model fit for the multinomial regression model for determinants of HDDS fitted well (χ^2 (28) = 417.74, P < 1% & Nagelkerke Pseudo R-square = 0.890). The Deviance Chi-square confirmed the goodness of fit (χ^2 (610) = 129.848, P = 1). The significant predictors (P < 5%) identified in the likelihood ratio tests included VSLA activities, post-harvest handling and storage (PHHS) practices, administrative efficiency, household size, land size, savings cycle, remittances, and formal employment. There was a significant association (P < 5%) in the increased multinomial log odds ratios of being in the moderate (7-9) and high (10-12) HDDS score categories, relative to low (0-6) HDDS when households increased or improved VSLA engagement activities, governance and administrative smoothness of VSLA activities, household head's level of education, level of crop diversification and PHHS practices. On the other hand, having formal employment and not receiving remittances in the past 6 months was associated with lower odds ratios of being in the moderate (7-9) and high (10-12) HDDS score categories.

7.3 Conclusions

By closely following up on the research findings, policymakers and development practitioners can adopt, scale, and improve the implementation of VSLA activities. Private sector firms can develop customized products that best suit the needs of the VSLA households and also track on their savings and spending patterns. In conclusion, the methodology also proved not to be all-sufficient without paying attention to all the determinants of HDDS and the need for layering and tapping into relevant PPPs considering that the VSLA methodology only explained 59.2%, 52.7%, 41.8%, and 45.1% change in food availability, accessibility, stability, and utilization respectively.

7.4 Policy implication and recommendations

Based on the research findings, several policy implications and recommendations can be drawn

i. Promote the adoption of Social fund portfolio: Only 9% of the 149 VSLA had a social fund portfolio for emergencies including bereavement. VSLA groups should adopt a social fund portfolio to increase the benefits of pulling resources together. Funeral service providers should also capitalize on this initiative and design funeral policy products that can incorporate the VSLA.

ii. Diversification of income generating activities (IGAs): crop and livestock production was adversely affected by El-Nino enduced mid-season dry spell and hail storm. VSLA members should consider climate adaptation and engage in climate-smart relevant IGAs.

iii. Public-private partnerships: input and output linkages created a value for engagement with Farm and City, N Richards, and seed houses. In return, the benefits were reduced transport

costs for accessing inputs, access to high value markets and also capacity building. Development practitioners should enhance PPPs to increase the benefits thereof of VSLAs. Working hand in glove with local leadership will also enhance participation and guarantees a form of security for the VSLA funds. Local leaders can stamp VSLA constitutions, create awareness of the methodology in local gatherings, and also be engaged in resolving conflict among VSL members on diverse issues including poor loan repayment.

Saving for transformation: saving objectives should not only focus on household furniture and kitchen utensils. VSLAs should be capacitated to save for accumulation of productive assets compared to consumables.

Scaling up capacity building: 15.9% of VSLAs had a low administrative and governance "smoothness" score averaging 1.81 out of 5. Relevent development practitioners should work in hand with relevant line ministries (e.g MWACSMED) to increase the capacity building of groups. In addition, VSLAs look and learn or exchange visits should be organized locally, across districts, provinces, and even countries to enhance the diffusion of the most relevant practices.

Optimum allocation of land as a scarce resource: increasing the amount of land holding was associated with low odds of having a high HDDS score relative to low HDDS. Policies on land acquisition and re-distribution should advocate for optimum land ownership. This increases the efficiency of agricultural activities, reduces incidences of idle-arable land, and consequently improves household dietary diversity scores.

Promote investment in PHHS technologies: The level of adoption of PHHS practices increased the multinomial log odds of a moderate and higher HDDS score. Respondents in the study area were using metal silos, solar driers, grain protectants, and improved granaries as the adoption of recommended PHHS practices. PPPs should be established for designing, creating awareness, and improvement of PHHS technologies.

7.5 Suggested areas for further research

The following areas for further study have been identified:

1. The study was cross sectional and focssed only on the VSLA participants. Further studies which compares contribution to food security status against participants and non-participants and also longitudinal surveys assessing the contribution over a period of time should be done. This will further guide into tracking changes and sustainability issues revolving around VSLA implementation.
2. Gender issues need to be expored. These would give insight on gender related issues, regards to rolling out of VSLA activities, that needs to be addressed, adopted or scaled

up. These will inform programming and tailor making of capacity building schedules that address gender norms which could affect the level of participation and governance and organizational "smoothness" of VSLA activities.

3. Adoption of the social fund portfolio was very low (9%). Further research should unveil the socioeconomic or cultural factors that have surfaced in the low uptake of the social fund portfolio. Furthermore, it would explore opportunities for synergies with private sector firms to promote the adoption of social fund portfolios. Research findings will then guide the designing of customized social fund portfolio products.
4. Factors affecting the diversification of IGAs in VSLA should be explored and the various strategies that can be adopted to enhance diversification in the face of climate change be mapped.

7.6 Appendices

Appendix 1 Household Questionnaire

INTRODUCTION

My name is **Kundai Koreka**, from **Bindura University of Science and Education**. I am studying towards a ***Master of Science Degree*** in ***Food Security and Sustainable Agriculture***. In partial fulfillment of my studies, I am undertaking research on ***THE NEXUS BETWEEN HOUSEHOLD FOOD SECURITY AND VILLAGE SAVINGS AND LOANS: A CASE OF MASVINGO DISTRICT, ZIMBABWE.***

This study uses this questionnaire to collect all the necessary information, at the household level focusing on VSLA participants. The research will help the Government, Institutions, non-governmental organizations, Policy makers, Private sector players, and other stakeholders in designing, monitoring, and implementing livelihoods and other developmental interventions targetting smallholder farmers.

INFORMED CONSENT

This survey is ***voluntary*** and ***confidential.*** That means that if you do not feel like answering the questions you do not have to, and if you feel like stopping part way through, that is ok, you can stop at any time. It also means that your name will not be attached to your answers. The first page in which you sign the informed consent will be detached from the questionnaire. Only the person interviewing you will know your answers. There are no wrong answers. You are only required to answer the statements as truthfully as possible as it will affect the overall outcome of the research. The researcher shall seek consent where any relevant media including pictures, audio, and videos of the respondent(s) are needed. However, if collected, this media will be accompanied by a relevant consent form.

If you have questions about the interview you may contact the researcher at **+263777 786 876** or kundai.koreka@gmail.com.

Interviewer's statement

I have informed the respondent about the study objectives and goals. The repsondent is fully aware and knows that information will be kept confidential, participation is voluntary, they are free to withdraw from the survey anytime- before and even during the survey.

Signed: _____: [| | - | | | - | 2 | 0 | 2 | 4]

Respondent's statement:

"I have been read and explained the purpose of the study and the informed consent. I therefore volunteer to participate in the household survey":

Signed: _____: [| | - | | | - | **2** | **0** | **2** | **4**]

Respondant Details:

Full Name of Respondant: [_____ _____]

Phone Number: [0 | **7** | | | | | | | | |] **Gender of respondant**: Male [ ] Female [ ]

Questionnaire Identification Details

Date: [| | - | | | - | **2** | **0** | **2** | **4**] **Question Paper Number** [| | |]

Project: _____ **District:** _____ **Ward** [ ]

Name of Village Savings and Loans Association [_____]

SECTION A

Household Demographics

Q1. How many members in your household are in the following age groups? 0-18years [ ]; 18-65years [ ]; 65+years [ ]

***For the following Questions, that is 2,3 and 4, tick in the space provided i.e* [✓]**

Q2. What is the Gender of your Household Head (*HHH*)? Male [ ] Female [ ]
Q3. Number of years of education of HH Head? [ ] years
Q4. What is the marital status of the HH Head? Single [ ] ; Married [ ]; Divorced [ ]; Widowed [ ]
Q5. How many members in the household are living with disability (*0 if there are no members*)? [ ]
Q6. Do you or any household member earn money from any of the following sources every month?
a. Formal employment [ ] b. Petty Cash trading (*Musika*) [ ] c. Farming [ ] d. Hired labor (*maricho*) [ ]
e. Handouts (*kupemha*) [ ] f. Remittances (*Kutumirwa nehama dziri mhiri*) [ ] g. Pension [ ]
h. Service provision e.g. shelling, tilling, milling, transport, etc [ ] i. Rentals [ ] j. Other sources [ ]

Q7. Indicate the type and quantity owned by the household from the following table:

#	Asset	Weighted Score	Quantity owned	#	Asset	Weighted Score	Quantity owned
a.	Television	2	[ ]	**g.**	land	ha	[ ]
b.	Refrigerator	2	[ ]	**h.**	Cattle	1	[ ]
c.	Vehicle	3	[ ]	**i.**	Goats	0.5	[ ]
d.	Smart Cell phone	1	[ ]	**j.**	Plough	1	[ ]
e.	Solar panel	1	[ ]	**k.**	Water Pump	2	[ ]
f.	Sofas (Set of four)	1	[ ]				

Q8. Have you ever borrowed a loan from the following:
a. Banks and Micro-financial Institutions Yes [ ] No [ ]
b. Village Savings and Loans associations Yes [ ] No [ ]
c. Mobile wallets (Ecocash, One money etc) Yes [ ] No [ ]

SECTION B: Success factors, constraints of VSLAs, gorvenance and adminstrative smoothness

This section seeks to have an indepth understanding of the key success factors and constraints that VSLAs are currently facing.

Q9. Indicate the severity to which each of the following constraints are affecting your VSLA from **1** = not severe to **5** = extremely severe.

Q9	Activity	Not severe	Somewhat severe	Moderately severe	Very Severe	Extremely severe
a.	Group members are not repaying their loans on time.	[1]	[2]	[3]	[4]	[5]

b.	There is favouritism in giving out loans.	[1]	[2]	[3]	[4]	[5]
c.	Members are not attending savings meetings regularly or at all.	[1]	[2]	[3]	[4]	[5]
d.	There is dominancy in decisions and ideas contribution by the leaders.	[1]	[2]	[3]	[4]	[5]
e.	There are limited group funds to loan because members struggling to raise funds to save.	[1]	[2]	[3]	[4]	[5]
f.	There are very high levels of mis-trust among group members	[1]	[2]	[3]	[4]	[5]
g.	There are poor financial record-keeping practices	[1]	[2]	[3]	[4]	[5]
h.	There are limited available options of low-capital-viable Income generating activities.	[1]	[2]	[3]	[4]	[5]
#	**Activity**	**Not severe**	**Somewhat severe**	**Moderately severe**	**Very Severe**	**Extremely severe**
i.	There are high precedencies of harsh weather patterns and diseases in crops and livestock affecting on-farm income generating activities (El Nino, New castle, Anthrax, January Disease etc)	[1]	[2]	[3]	[4]	[5]
j.	Members are not adhering to the group constitution	[1]	[2]	[3]	[4]	[5]
k.	Members frequently face ermergencies such as death and sickness by relatives during the saving cycle	[1]	[2]	[3]	[4]	[5]

Q10. Indicate the extent to which each of the following factors are contributing to the success of your VSLA from **1** = not at all to **5** = extremely contributing.

Q10	Activity	Not at all	Somewhat	Moderately	Very much	Extremely
a.	Group members attend savings meetings regularly	[1]	[2]	[3]	[4]	[5]
b.	Financial records by the treasurer are upto date and transparent	[1]	[2]	[3]	[4]	[5]
c.	Amount that each member saves is manageable	[1]	[2]	[3]	[4]	[5]
d.	The length of our saving cycle is optimum (not too long nor too short before shareouts)	[1]	[2]	[3]	[4]	[5]
e.	Interest rate being charged on VSLA loans is fair	[1]	[2]	[3]	[4]	[5]
f.	Group members have equal chances to any loan amount they require at all the times	[1]	[2]	[3]	[4]	[5]
g.	Repayment period for loans borrowed is appropriate and flexible	[1]	[2]	[3]	[4]	[5]
h.	There is fairness and transparency in the process of selecting leadership positions	[1]	[2]	[3]	[4]	[5]
i.	The group constitution is binding, authoritative and assists leaders to make efficient decisions	[1]	[2]	[3]	[4]	[5]
j.	Group membership is voluntary and there is self-selection when forming groups	[1]	[2]	[3]	[4]	[5]
k.	The group frequently receives monitoring, mentoring and training (SMEs, Organisations, Government Extension workers, Localfacilitators-CF)	[1]	[2]	[3]	[4]	[5]
l.	The group size is manageble	[1]	[2]	[3]	[4]	[5]

m.	The group has been riding on linkages with private sector players (MFIs, Contractors, Off-takers, inputsuppliers etc)	[1]	[2]	[3]	[4]	[5]
n.	The group saves in foreign currency which is stable.	[1]	[2]	[3]	[4]	[5]
o.	The group or group members actively engage in income generating activities or off-farm activities	[1]	[2]	[3]	[4]	[5]

SECTION C: HOUSEHOLD FOOD SECURITY

Household Dietary Diversity Score

Q11: Can you please recall exactly what all your household members, including you, ***ate and drank*** yesterday during the day and at night starting with first meal. Tick the boxes which correspond to your responses of what your household ate from the following table:

Q11	Food Group	Did your household eat any of the following foods yesterday during the day and at night?	Yes	No
a.	CEREALS	Corn/maize, rice, wheat, sorghum, millet or any other grains or foods made from these (e.g. Bread, noodles, porridge or other grain products) + local foods e.g. Sadza, maheu, mashazhari, chimodho etc	[ ]	[ ]
b.	VITAMIN A RICH VEGETABLES AND TUBERS	Pumpkin, carrots, squash, or sweet potatoes that are orange inside + other locally available vitamin A-rich vegetables (e.g. Red sweet pepper)	[ ]	[ ]
C.	WHITE ROOTS AND TUBERS	White potatoes, white yams, white cassava, or other foods made from roots	[ ]	[ ]
	DARK GREEN LEAFY VEGETABLES	Dark green/leafy vegetables, including wild ones + locally available vitamin A rich leaves such as cassava leaves, kale, spinach, nyevhe etc.		
	OTHER VEGETABLES	Other vegetables (e.g. Tomato, onion, eggplant), including wild vegetables		
d.	VITAMIN A RICH FRUITS	Ripe mangoes, cantaloupe, apricots (fresh or dried), ripe papaya, dried peaches + other locally available vitamin A rich fruits	[ ]	[ ]
	OTHER FRUITS	Other fruits, including wild fruits		
e.	ORGAN MEAT	Liver, kidney, heart or other organ meats or blood-based foods	[ ]	[ ]
	FLESH MEATS	Beef, pork, lamb, goat, rabbit, wild game, chicken, duck, or other birds		
f.	EGGS	Chicken, duck, guinea fowl or any other egg	[ ]	[ ]
g.	FISH	Fresh or dried fish or shellfish	[ ]	[ ]
h.	LEGUMES, NUTS AND SEEDS	Beans, peas, lentils, nuts, seeds, or foods made from these	[ ]	[ ]
i.	MILK AND MILK PRODUCTS	Milk, cheese, yoghurt or other milk products	[ ]	[ ]
j.	OILS AND FATS	Oil, fats or butter added to food or used for cooking	[ ]	[ ]
k.	SWEETS	Sugar, honey, sweetened soda, sweetened juice or sugary foods such as chocolates, candies, cookies and cakes	[ ]	[ ]
l.	SPICES, CONDIMENTS, BEVERAGES	Spices (black pepper, royco, salt), condiments soy sauce, hot sauce), coffee, tea, alcoholic beverages, or local examples	[ ]	[ ]

Engagement in Village Savings and Loans Associations (VSLA) activities

Tick in the boxes provided or complete as applicable for all questions in the table.

Q12. Understanding the farmer's level of engagement in **Village Savings and Loan Associations Activities**

Q12	Activity	Response
i.	How much have you spend on buying inputs for farming from VSLA funds (seed, fertiliser, chemicals etc) in the past six months?	USD[.....]
ii.	How much have you spent on buying food, school fees and health care from VSLA funds in the past six months	USD[.....]
iii.	How many times have you accessed VSLA loan in the past 6 months	[ ]
iv.	How many VSLA meetings have you attended in the past 6 months	[ ]
v.	How many times have you received shareouts since joining VSLA	[ ]
	Aggregate Score	

Estimating the Four Food security pillars in VSLA participants.

a. Food availability

Q13a	Answer the following questions on food availability	Tick one best answer for every question				
i.	How many months does your household spent with maize harvested from your field?	[.....] months				
ii.	How many chickens, or any other poultry does your household own?	[.....] birds				
iii.	Are maize and other grains readily available within the village?	Never [ ]	Rarely [ ]	Sometimes [ ]	Often [ ]	Always [ ]
iv.	Currently, how much is a 20l bucket of maize in your village?	USD [.....]				
v.	Do you sell surplus grain, pulses, horticultural produce, poultry and any other livestock to other farmers?	Never [ ]	Rarely [ ]	Sometimes [ ]	Often [ ]	Always [ ]
	Aggregate Score					[ ]

b. Food accessibility

Q13b	Answer the following questions on food accessibility	Tick one best answer for every question (where applicable)				
i.	Do you receive any income from a salary or wage?	Never [ ]	Rarely [ ]	Sometimes [ ]	Often [ ]	Always [ ]
ii.	Do you receive any income from petty cash trading, remittances or any service provision (shelling, tilage, transport etc?	Never [ ]	Rarely [ ]	Sometimes [ ]	Often [ ]	Always [ ]
iii.	How stable were the average food prices of grain in the past six months?	Never [ ]	Rarely [ ]	Sometimes [ ]	Often [ ]	Always [ ]
iv.	How much do you spend per month on food items?	USD [.....]				
v.	How affordable is cooking oil and mealie meal for your household?	Not at all [ ]	Somewhat Expensive [ ]	Fair [ ]	Cheap [ ]	Very Cheap [ ]
	Aggregate Score					[ ]

c. Food stability

Q13c	Answer all the following questions on food stability	Tick one best answer for every question				
i.	Do you use fertiliser and chemicals in your crop production activities?	Never [ ]	Rarely [ ]	Sometimes [ ]	Often [ ]	Always [ ]
ii.	Do you have enough storage facilities for storing grain?	Never [ ]	Rarely [ ]	Sometimes [ ]	Often [ ]	Always [ ]
iii.	Do you use grain protectants to reduce losses due to to poor storage?	Never [ ]	Rarely [ ]	Sometimes [ ]	Often [ ]	Always [ ]

iv.	How many crops have you grown in your garden or peice of land under irrigation in the past 6 months?	[.....]				
v.	Do you ever suffered losses to your animals or crops due to drought and diseases?	Always [ ]	Often [ ]	Sometimes [ ]	Rarely [ ]	Never [ ]
	Aggregate Score					[ ]

d. Utilisation

Q13d	Answer all the following questions on food utilisation	Tick one best answer for every question				
i.	How often have you ever dried and stored green vegetables?	Never [ ]	Rarely [ ]	Sometimes [ ]	Often [ ]	Always [ ]
ii.	How often did any member(s) of your household suffer from persistant diarrhoea in the past six months?	Always [ ]	Often [ ]	Sometimes [ ]	Rarely [ ]	Never [ ]
iii.	Has any household member(s) suffered from kwashiokor or obesity in the past six months?	Always [ ]	Often [ ]	Sometimes [ ]	Rarely [ ]	Never [ ]
iv.	How many times do you prepare meat and meat products for the household per week?	[.....]				
v.	On a weekly basis, how often do you throw away food as a result of moulding?	Always [ ]	Often [ ]	Sometimes [ ]	Rarely [ ]	Never [ ]
	Aggregate Score					[ ]

Determinants of VSLA participants' Household Diettary Diversity Scores.

Q14. How many kilometres is your homestead from the main road (dust or tarred)? [……..……]km
Q15. How many members are in your VSLA (mukando)? Total [ ] Male [ ] Female [ ]
Q16. How much money are you contributing to your VSLA per month? [US$ ……]
Q17. How much interest rate is charged when members are accessing loans (zero if not charged)? [% per month]
Q18. How many months do you save before sharing out? [months]
Q19. How many savings cycles or share-out's has the group facilitated since establishment? [ ]
Q20. How much income does the household receive from any form of employment monthly? [US$ ……]
Q21. How much income does the household receive from petty cash trading and service provision (tillage, shelling, vending etc) on monthly basis? [US$ ……]
Q22. In the past six months, how many times have your household received food aid from local organisations, social welfare or any other? [……..……]

Answer Yes or No for the following questions.
Q23. Do you receive any form of monitoring, mentoring, training, and or other support from any of the following: non-governmental organisations, government, local extension officers, private sector players and other? [ ] Yes [ ] No
Q24. In the past two months, have you received any cash or food assistance from friends and or relatives who are not staying in the local area? [ ] Yes [ ] No
Q25. In the past two months, has any household member suffered from a consistent diarrhoea or kwashiorkor or any diseases that had them admitted at hospital for several days? [ ] Yes [ ] No
Q26. Have you applied or used any chemicals to manage pests and diseases in your crops and or livestock [ ] Yes [ ] No
Q27. Have you adopted any of the following soil fertility management practices in your fields during this cropping season? - mulch, manure, crop rotation, fertility trenches, tying ridges and potholing (***makomba***), [ ] Yes [ ] No
Q28. Have you used fertiliser, improved seed, and other chemicals in your crops this season? [ ] Yes [ ] No
Q29. Does your household participate in any community nutritional garden or have their own garden, or any irrigated land? [ ] Yes [ ] No
Q30. How many VSLA groups are you a member of? [ ]

>>>>>>>>>>>>>>>>The END<<<<<<<<<<<<<<<<<

Appendix 2 VSLA Benchmarks

Date		Activity	Output
Week 1	Community Mobilization	Stakeholder Orientation and sensitization	✓ Project objectives understood. ✓ Project methodology and implementation cycle clear ✓ Stakeholder approval granted ✓ Stakeholder support clarified. ✓ Geographical layout agreed. ✓ Venue and time for next meeting agreed.
Week 2		Community Members' orientation and sensitization	✓ Project objectives understood ✓ Project methodology understood and appreciated ✓ The project implementation cycle clear ✓ Interested individuals identified ✓ Interested existing groups identified ✓ Geographic clusters identified ✓ Training venues, dates, and times agreed.
Week 3	Training of groups	a. Member Self Selection b. Leadership and governance c. Constitution	✓ Individuals able to self-screen ✓ Individuals can explain their personality and decide. ✓ Individuals can screen others to form groups ✓ Members self-select and form groups ✓ Group leaders elected ✓ Group goals defined ✓ Group by-laws set and constitution developed.
		d. Group Fund Development	✓ Savings and credit methodology understood ✓ The mechanism for building group funds is understood. ✓ The rationale behind internal savings and loans understood ✓ Member contributions agreed ✓ Lending terms agreed ✓ Groups commence saving and lending
		e. Record keeping	✓ Record book bought ✓ Record book system in place ✓ Savings and lending activities recorded. ✓ Recording sequence implemented ✓ Transactions accurately recorded ✓ Minutes of meetings recorded
Month 2-7	Monitoring of Groups	Monthly monitoring Group or Cluster level (**Intensive monitoring phase**)	✓ Regular and consistent savings and/or internal lending ✓ Participation by all members during meetings ✓ Schedule for group visits and meetings agreed. ✓ Gaps in practice noted and corrected ✓ Improved recording accuracy ✓ Coaching session conducted ✓ Corrected group records and practice
Month 8-13		Bi-monthly monitoring Group level (**Development phase**)	✓ Independent management of group meetings ✓ Accurate and clear record-keeping ✓ Regular, and growing sizes savings and/or loans ✓ All Members attend and participate in meetings
Month 14 - 19	Exit	Quarterly monitoring - Group level (**Pre-graduation phase**)	✓ Independent management of group meetings ✓ Accurate, clear, and self-correction record keeping ✓ Regular, growing self-adjusted sizes savings and/or loans ✓ Flexible individual loan sizes ✓ Participation by all members during meetings.

Appendix 3 VSLA Constitution

Section	Areas covered or content
Basic Data:	Group name; Date formed; Location; When will the constitution be adopted?
Objectives	What the group wants to achieve collectively
Membership criteria	How can one become a member of the group and who qualifies
Committee	Positions; Duties and responsibilities; length of term in office; conditions for replacing a position (resigns, dies, failure to perform duties, misconduct)
Election Procedures	Quorum size; Who leads process; Process of nominating candidates; How will members vote in secrecy
Meetings:	Date and time for savings meeting; Meeting interval (monthly, quarterly, etc.); Duration of meetings; rules on attendance, timekeeping, and penalties.
Savings/Fund:	Agreed member contribution; Collection of savings contribution (when and where); Purpose of savings; Types of loans; What happens in case money is lost?
Loans:	Eligibility criterion; loan products (amount allowable, repayment period, interests, emergency loans administration, failure to repay, and security)
Penalties:	Cases that attract fines; Exemption from fines; fines amount respective to offenses
Conflict resolution	Who resolves conflicts; who should attend the meeting and at what point should the meeting be held?
Separation, Breaking up (Dissolution) Dropping out:	What happens to the savings, interests, and penalties: ✓ When a member wants to leave the group for personal reasons ✓ When a member is expelled from the group due to various reasons like(misuse of funds, misconduct, etc) ✓ When a member dies ✓ If the whole group decides to dissolve
Amendments (changes)	Process of changing the constitution; Expected quorum size; Accepted reasons for amendments; When will the amendments be adopted.
Group members	List of all group members

Appendix 4 VSLA Records

VSLA Attendance Register

Full Name/*Zita*	**Date**/*Zuva*	**Date**/*Zuva*	**Date**/*Zuva*	**Date**/*Zuva*	**Date**/*Zuva*	**Date**/*Zuva*

VSLA Savings Book

Full Name/*Zita*	**Date**/*Zuva*	**Date**/*Zuva*	**Date**/*Zuva*	**Date**/*Zuva*	**Date**/*Zuva*
Total/*Zvose*					
Signature (Treasurer)/*Runyoro*					

VSLA Miscellaneous Book

Date / *Zuva*	**Name** / *Zita*	**Reason** / *Chikonzero*	**Amount Paid** */Mari Yabhadharwa*
	Total Amount		

VSLA Cash Book

Date / Zuva	**What happened**/ Zvii Zvaitika	**Cash In** / Mari Yapinda	**Cash Out** / Mari Yabuda	**Balance** / Mari Yasara

VSLA Loan Book

Date	**Name** */Zita*	**Loan amount** *Chikwereti*	**Interest** *Initiresiti*	**Total** Mari Yose	**Use** *Mubato*	**Repayment Period** *NguvaYokudzosa*	**Signature** *Runyoro*	**Date repaid** *Zuva Radzoswa*	**Amount paid** *Mari Yadzoswa*	**Outstanding balance** Chikwereti Chasara	**Comments** Zvingataurwa