A QUALITATIVE INQUIRY ON THE ROLE OF MICROFINANCE ON SMALLHOLDER FARMERS' SUSTAINABILITY IN RURAL ZIMBABWE

by

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A Thesis

Submitted for the degree

DOCTOR OF PHILOSOPHY IN MANAGEMENT

in the

School of Business and Finance

Faculty of Economic and Management Sciences

UNIVERSITY of the WESTERN CAPE

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CAPE TOWN

October 2022

DECLARATION

I, Jeremiah Machingambi, hereby declare that this thesis for the Doctor of Philosophy Degree (PhD) in Management submitted to the School of Business and Finance at the University of the Western cape has not been submitted previously for any degree at this or another university. It is original in design, execution, and all reference material contained therein has been duly acknowledged.

Student: J. Machingambi

Date: Machingambi

DEDICATION

This thesis is dedicated to my mother **RACHAEL, CECILIA MUZEMBI** (1964-2000)

Mother, you are one person who used to be genuinely happy at my achievements. I remember in 1999 how you ran with excitement waving my Form 4 results to all our neighbours because I had passed with 5As and 4Bs. This is now a PhD thesis; you must be singing the loudest in heaven. Thank you for the face I saw that day, it pushed me to be where I am now.

ACKNOWLEDGEMENTS

I would like to thank the following people who contributed to the successful completion of this study:

Prof Richard Shambare: Thank you for your guidance, advise and encouragement throughout the compilation of this Thesis. Our face-to-face and online interactions always triggered new dimensions. You are a mentor; you do not dictate but merely point in the right direction. Thank you so very much Prof.

Prof Pradeep Brijlal: Words alone cannot express my appreciation for all the advice, all the support which you have given me during my entire PhD journey. Thank you so much Prof.

My father Phillip Machingambi: *Baba*, the biggest thing in my life and something I respect is that you gave up to your last cent for me to finish my Primary and High school at very good schools. This contributed a lot for me to be where I am today. I am grateful and humbled for all the support that I received from you until today.

My Wife Lenlistar Machingambi: Thanks to my wife Lenlistar, for always being there for me. Your prayers and love carried me through, and you kept me going when times were challenging and tough. I am so thankful that you are part of my life.

Colleagues and friends: Completion of this thesis involved many other friends and although it is not possible to mention the names of everyone, I declare appreciation for Farai Gamira, Dr Tinotenda Chidhawu, Clive Banditi, Tendayi Mutangadura, Cathy Nduku, Zona Ndondo, Sanelisiwe Ndlovu, Nandipha Kondlo and Jurina Nkwazi.

ABSTRACT

Smallholder farmers are generally excluded from formal financial systems and tend to have limited financial intermediation options. Furthermore, from banks' perspectives, smallholder farmers' lack of collateral makes them risky customers in that they are viewed as not being able to repay loans. Against this background, many smallholder farmers are resorting to microfinance to secure capital. This, therefore, raises the question as to whether microfinance is a panacea to smallholder farmers' access to capital woes. In the extant literature there are mixed results in terms of explaining the role of microfinance in terms of stimulating the growth and sustainability of the smallholder farming sector. This naturally constitute the research gap that this thesis sought to address. This study sought to investigate how microfinance supports smallholder farmer sustainability. A conceptual framework was developed in the current study, in a bid to understand what really constituted smallholder farmers' sustainability. Review of literature conceptualised smallholder farmers' sustainability as a function of both farm and personal sustainability. Farm sustainability was conceptualised in this study as the ability of smallholder farmers to adopt system-based farming operations, whilst personal sustainability was conceptualised as the farmers' self-sufficiency. Based on the critical realism paradigm, the qualitative research approach and a case study research design was used in this thesis. Data were collected from eight smallholder cattle farmers and two MFIs in Masvingo province, Zimbabwe. Data was collected using in-depth from smallholder farmers and document analysis from the MFIs. Data was analysed using ATLAS.ti. 9, Qualitative data analysis tool. Based on the case study, the results of the study found out that despite minute farm sustainability related challenges like farmers failing to retail their farm produce outside the microfinance driven value chain, MFIs were contributing to smallholder farmers farm sustainability. The results however showed little evidence on microfinance contribution to smallholder farmers personal sustainability. The study developed a smallholder farming sustainability pathway framework, which puts forward that smallholder farming sustainability can be achieved through provision of integrated microfinance services to smallholder farmers, enhancing smallholder farmers self-sufficiency, smallholder farming business modelling and provision of entrepreneurial skills to smallholder farmers. The implication of the current study is that it potentially provides policy makers with valuable tools to understand microfinance and smallholder farmers' relationship as well as the pathway or framework that enhances smallholder farmers' sustainability.

***Keywords**: Agricultural Entrepreneurship; Farm Sustainability; Microfinance; Microfinance Institution; Personal Sustainability; Smallholder Farmer; Sustainability; Zimbabwe*.

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ABBREVIATIONS

AISP	:	Agriculture Input Support Programme
BSAC		British South Africa Company
BWP	:	Botswana Pula
CABS	:	Central Africa Building Society
COMFI	:	Credit Only Microfinance Institutions
COTCO	:	Cotton Company of Zimbabwe
DTMFI	:	Deposit Taking Microfinance Institutions
EIRR		Economic Internal Rate of Return
FAO	:	Food and Agriculture Organisation
FTLRP	:	Fast Track Land Reform Programme
GMB	:	Grain Marketing Board
GDP	:	Gross Domestic Product
GoZ	:	Government of Zimbabwe
ICT	:	Information and Communication Technologies
IMF	:	International Monetary Fund
LFSP	:	Livelihoods Food Security Programme
MFED	:	Ministry of Finance and Economic Development
MLAWCRR	:	Ministry of Lands, Agriculture, Water, Climate and Rural Resettlement
MFI	:	Microfinance Institutions
MOIC	:	Ministry of Industry and Commerce
NGO	:	Non-Governmental Organisation
RBZ	:	Reserve Bank of Zimbabwe
PRIDE	:	Promotion of Rural Initiatives and Development Enterprise
PWSAIS	:	Presidential Well-Wishers Special Agriculture Input Scheme
SDGs	:	Sustainable Development Goals
SHF		Smallholder Farmer
SEWA	:	Self Employed Women Association
SMMEs	:	Small, Micro and Medium Enterprises
SMS	:	Short Message Services
TCAP	:	Targeted Command Agriculture Programme
USD	:	United States Dollar
VFC	:	Value Chain Financing
ZAMFI	:	Zimbabwe Association of Microfinance Institutions
ZAR	:	South African rand
ZANU PF	:	Zimbabwe African National Union-Patriotic Front

ZDF	:	Zimbabwe Defence Forces
ZWL	:	Zimbabwean Dollar

CHAPTER 1
INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 CHAPTER OVERVIEW

This chapter introduces the study background in the form of a brief literature review, statement of the problem, the research question and an overview of the research methodology. Furthermore, the chapter outlines the structure of the thesis, scope and limitations of the study and definition of the terms that were used in the entire study.

1.2 INTRODUCTION

Access to both financial services and sustainable markets is critical to smallholder farmers sustainability. Provision of adequate credit to smallholder farmers is critical, as it helps to improve their farm investments in productivity, smooth household cashflow, better access to markets and better management of the farm and household risks (Fan & Rue, 2020). Smallholder farmers' access to finance play a very important role in climate adaptation and increase resilience of agriculture climate change, thereby contributing to food security (Vadjunec, Radel & Turner, 2016; Fan & Rue, 2020). Access to financial services is key to mitigating various challenges that smallholder farmers face globally. Previous studies have shown that credit is beneficial to farm productivity for smallholder farmers (Girabi & Mwakaje, 2013; Mago & Hofisi, 2014; Mago & Hofisi, 2016; Sagarik, 2016). Financing constraints however limit the productive capacity for smallholder farmers, thereby impeding the modernisation of agriculture by decreasing the use of technological innovations (Food and Agriculture Organisation, 2021). In Zimbabwe, access to finance is a challenge to smallholder farmers and it inhibits smallholder farmers' access to adequate agricultural inputs, thereby affecting their agricultural productivity (Reserve Bank of Zimbabwe, 2021). To ease the challenges of access to finance of smallholder, the government of Zimbabwe availed a number of support programmes that include Operation Maguta; Presidential Well-wishers Special Input Scheme (PWSAIS); Agriculture Input Support Programme (AISP), Command Agriculture; Operation Maguta and Pfumvudza. The programmes enhanced smallholder farmers access to maize seed and fertilisers (Mazwi, Chemura, Mudimu & Chambati, 2019; Mutami, 2015). The government smallholder farmers support programmes were however associated with corruption from senior politician and government officials, who diverted some of the inputs for personal use (Mazwi et al. 2019). In the context of increasing demand for agricultural financing in Zimbabwe, commercial banks show a limited interest in financing the smallholder farming sector (Jachi, Satande, Bhibhi & Makumbe, 2020). Microfinance has become one of the key

financiers of smallholder farming activities in Zimbabwe (Mago & Hofisi, 2016; RBZ, 2020; RBZ, 2021). Microfinance is viewed as an intervention that can be employed for the promotion of smallholder farming for rural agricultural development in Zimbabwe (Mago & Hofisi, 2016).

1.2.1 MICROFINANCE

The microfinance promise lies in the ability to provide sustainable financial services to the poor. Microfinance has emerged as a feasible financial alternative for poor people with no access to credit from formal financial institutions and its objectives include poverty alleviation by fostering small scale entrepreneurship through simple access to credit (Remer & Kattilakoski, 2021). Microfinance distinguishes itself from formal credit by disbursing small loans to the poor, using various innovative non-traditional loan configurations such as loans without collateral, group lending, progressive loan structure, immediate repayment arrangements, regular repayment schedules and collateral substitutes (Remer & Kattilakoski, 2021). Early research by Ledgerwood (1999) stipulates that microfinance promise to both reach the poor and of building sustainable microfinance services. Microfinance activities can support income generation enterprises operated by low income households on one hand. On the other hand, microfinance can help to build financially self-sufficient subsidy free, and often locally managed financial institutions. The microfinance promise thus was to build sustainable financial institutions that provide financial services to the poor that were excluded from the financial system. Microfinance was also meant to offer financial services to those borrowers who had no collateral as they replaced 'physical' or 'financial' collateral with 'social' collateral in the form of group lending. Microfinance, in the context of this study was conceptualised as provision of financial services that include small loans, savings, and money transfer services to smallholder farmers, that do not have access to financial services from the formal and mainstream financial institutions.

1.2.2 SMALLHOLDER FARMERS

The term smallholder can be interchangeably used with terms like 'peasant farmer'; 'resource poor' and 'small scale' (Rubhara, 2017). Masvongo, Mutambara and Zvinavashe (2013) defined smallholder farmers as rural producers, who mainly use family labour and derive their income from farm activities. In support of that FAO (2019) highlighted that smallholder farmers in Zimbabwe are indigenous black farmers, with small landholding which can be as low as 1.5 hectares and as high as 10 hectares. In the context of this study, smallholder farmers are conceptualised as communal farmers, old, resettled farmers and A1 resettled farmers who practice agriculture on a small scale, using a maximum of 10 hectors for both crop and livestock

farming but producing both for subsistence and for the market. In addition, smallholder farmers are conceptualised as farmers whose crop and livestock production practices are influenced mainly by government policy and the effectiveness of producer organisations.

1.3 BACKGROUND OF THE STUDY

Smallholder farmers play a very important role world-wide in enhancing food security and poverty alleviation. There are 475 million smallholder farmers globally, which is 80% of the farmers engaged in agricultural activities in the world (Fan & Rue, 2020). Despite the important role played by smallholder farmers in achieving global food security, nutrition and poverty alleviation, smallholder farmers remain a vulnerable group, that is often neglected by development polices, they account for the world's poor and hungry and they lack access to agricultural credit (Vadjunec et al. 2016; Fan & Rue, 2020). The importance of smallholder farmers globally and in Africa cannot be underestimated.

Smallholder farmers in Africa contribute greatly to feeding their economy yet less than 4 percent of total commercial bank lending going to the agricultural sector (FAO, 2019). The smallholder farmers continue to face challenges related to access to finance. FAO (2018) report claims that, 'whilst 55 percent of Africa's population is engaged in agricultural livelihoods, only approximately 1 percent of bank lending across the continent goes to the agricultural sector'

Smallholder farmers represent two tremendous opportunities: a market opportunity for any financial institution looking to grow their client base, and an impact opportunity for all financial institutions that have a social mission (Langyintuo, 2020). The total amount of debt financing available to smallholder farmers in the developing world is approximately R14.5bn. This amount meets less than 3 percent of the estimated total smallholder financing demand, which is calculated to be USD720bn globally' (Langyintuo, 2020)

Financial institutions cite lack of collateral, high transaction costs due to remoteness of clients, dispersed demand for financial services, the lag between investment needs and expected revenues, lack of irrigation, pests and diseases, small size of farms and of individual transactions, underdeveloped communication and transportation infrastructure and high covariate risks due to variable rainfall and price risks Adesina et al. (2012) as reasons why they do not lend to smallholder farmers. Other challenges include poorly developed agri-food value chains, which significantly increase risks and exposure for the bank, and a general lack of understanding among financial institutions of the agricultural sector and the opportunities

(FAO, 2019). Despite contributing immensely to the economies' Gross Domestic Product (GDP), the smallholder farmers face challenges of access to credit to boost their agriculture production. Figure 1.1 below show the credit that has been channelled agriculture production in different countries in 2018, as compared to their contribution to GDP.

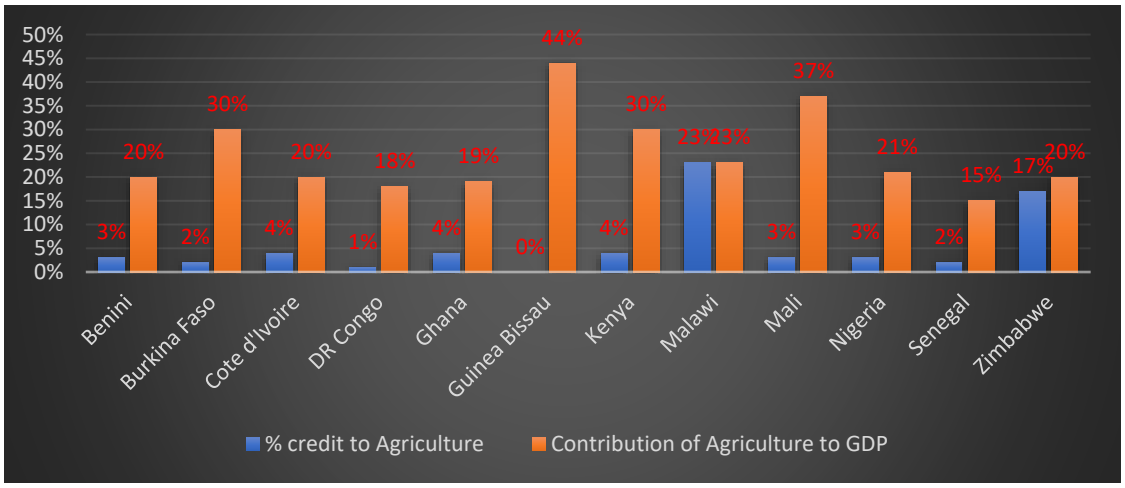

Figure 1.1: Agricultural lending as a share of agricultural GDP in selected African countries.
Source: Adapted and Modified from FAO (2018)

The figures in Figure 1 evidence that there is a big financing gap with regards to smallholder farming financing in Africa. Smallholder farmers in developing countries are excluded from the formal financial service sector. In this regard, Machigambi (2020) states that, microfinance institutions are expected to serve clients who have been financially excluded from the formal financial services sector. Microfinance can be a starting point of a virtuous cycle for smallholder farming in Africa. The smallholder farmers improve their smallholder farming activities through microfinance services, generate profit and use the generated profit to repay loans from the MFIs (Langyintuo, 2020). Langyintuo (2020) further states that in principle, the unsatisfied demand by smallholder farmers for financial services can be met by MFIs. In support of that, Remer and Kattilakoski, (2021) ascertains that MFIs have emerged to provide credit facilities and deposits but have not succeeded in expanding financing for agriculture. This is due to a number of reasons including limited capital bases, high interest rate, small size of disbursement insufficient for investment and being located in urban centres when the bulk of farmers are in rural areas. Moreover, the repayment schedules for microfinance loans often do not synchronise with the seasonality of agriculture and the timing of farmers' cash flows (Remer & Kattilakoski, 2021). This calls for the need for a formal Microfinance- Smallholder farming Sustainability Framework, which is informed by empirical research on the role of microfinance on smallholder famers' sustainability in developing countries.

1.4 DEVELOPMENT OF THE RESEARCH PROBLEM

Smallholder farmers in developing countries, including Zimbabwe have been target customers for MFIs. Microfinance is key to enhancing agricultural entrepreneurship. Munyoro and Chimbari (2019) defined agricultural entrepreneurship as a combination of agriculture and business, which is fostered by agripreneurs who innovate, identify markets, and satisfy needs by developing different ways of doing things. Agricultural entrepreneurship involves the strategic growing of crops and keeping of animals, further expanding that it also involves the incorporation of entrepreneurship skills and models to the farming business. Microfinance emerged as a feasible financial alternative for smallholder farmers with no access to credit from formal financial institutions and its objectives include fostering agricultural entrepreneurship; poverty alleviation by fostering improved smallholder farming productivity through simple access to credit (Remer & Kattilakoski, 2021). Microfinance distinguishes itself from formal credit by disbursing small loans to the smallholder farmers, using various innovative non-traditional loan configurations such as loans without collateral, group lending, progressive loan structure, immediate repayment arrangements, regular repayment schedules and collateral substitutes (ibid, 2021:2). Sustainable MFIs have targeted smallholder farmers, partnered with the farmers in the provision of agricultural inputs and linking the farmers to possible markets. The impact of subsidised microfinance on poverty alleviation is well documented in literature (Ayuub, 2013; Mago & Hofisi, 2014; Vatta, 2003; Wahibur, 2013). Substantial research attention has also been directed on microfinance on adoption of new agricultural technology (Abate, Rashid, Borzaga & Getnet, 2015; Moriyono, 2019; Nakano & Magezi, 2020; Wahibur, 2013) and the impact of microfinance on smallholder farming production (Mago & Hofisi, 2014; Mago & Hofisi, 2016; Sagarik, 2016). However, there are limited studies that have been conducted on the role of microfinance on smallholder farmers' sustainability, that is both farm and personal sustainability (Mago & Hofisi, 2016), with the view of developing a Smallholder farming sustainability framework, that is microfinance driven.

1.4.1 Statement of the Problem

In light of the inadequacies of traditional banking in stimulating a sustainable smallholder agricultural sector, the efficacy of microfinance in stimulating sustainability in the sector is largely unknown.

1.4.2 Research Question

The following research question assisted in identifying and investigating the research question:

How does microfinance support smallholder farmer sustainability in rural Zimbabwe?

1.4.3 Investigative Research Questions

***IQ1**: What challenges are being faced by smallholder farmers when accessing MFI services?*

***IQ2:** What are the uses and applications of microfinance loans by smallholder farmers?*

***IQ3:** How is microfinance contributing to the sustainability of both their farming activities and individually?*

1.5 RESEARCH AIM AND OBJECTIVES

The aim of the study is to investigate the role of microfinance on smallholder farmers' both sustainability, as well as to develop a smallholder farming sustainability framework for smallholder farmers in developing countries.

The specific objectives of the study are:

***RO1:** To investigate the role of microfinance on sustainability of smallholder farmers in rural Zimbabwe.*

***RO2:** To develop a smallholder farming sustainability framework for smallholder farmers in developing countries.*

1.6 JUSTIFICATION AND CONTRIBUTION OF THE STUDY

Despite the increased partnership between MFIs and smallholder farmers, the farmers continue to face the challenge of access to finance (Awuah & Addaney, 2016; Chandio, Jiang, Wei, Rehman & Liu, 2017; Dziwornu & Anagba, 2018; Enimu, Eyo & Ajah, 2017; Jumpah, Osei-Asare and Tetteh; Mersha & Ayenew, 2018) . Smallholder farmers face challenges of access to finance due to their remoteness , dispersed demand for financial services, the lag between investment needs and expected revenues, lack of irrigation, pests and diseases, small size of farms and of individual transactions, underdeveloped communication and transportation infrastructure and high covariate risks due to variable rainfall and price risks (Adesina, Langyintuo, Bugo, Makinde, Bigirwa & Wakiumu, 2012; Langyintuo, 2020). Reasons for smallholder farmers' finance access challenges emanate from use of a 'one size fit all' microfinancing structure and lack of a microfinance-smallholder farming sustainability framework tailor made for smallholder farmers. Therefore, a distinct set of data should be collected aimed at identifying access challenges, uses of loans as well as the role of microfinance farm and personal sustainability of smallholder farmers. Development of the 'Smallholder Farming Sustainability Pathway Framework' will help:

1. Microfinance institutions to develop products and services, as well as the microfinance delivery mode that enhance smallholder farmers farm and personal sustainability.

2. The Government to understand, how it can partner with MFIs to enhance smallholder farming sector sustainability.

1.7 CONTRIBUTION TO THE BODY OF KNOWLEDGE

This thesis made numerous contributions to theory and practice, as follows.

1.7.1 Theoretical Contribution

This study contributes to the Sustainable Microfinance lending theory; particularly in relation to the smallholder farming sector by providing insight into:

a) The conceptualisation of smallholder farming sustainability and personal sustainability in the context of sustainable microfinance lending theory

b) To provide a basis in which smallholder farming sustainability research in developing countries can be based.

c) To provide agricultural policy makers (particularly in developing countries) with a smallholder farming sustainability framework to promote smallholder farming sustainability.

1.7.2 Practical Contribution

In addition to making a theoretical contribution, this study is also likely to contribute to the following practical applications:

a) Given the fact that Zimbabwe is an agro-based economy, the role of smallholder agriculture in poverty alleviation, food security and economic growth cannot be under estimated.
b) This study contributes on how best microfinance provision can be incorporated in smallholder farming polices to enhance smallholder farming sustainability that will enhance poverty alleviation, food security and economic growth.
c) The microfinance products and services that are required to enhance smallholder farmers sustainability.
d) The extent to which the sustainable MFIs can provide entrepreneurship education to smallholder farmers without compromising the core business of micro-loan provision.

1.8 DEFINITION OF KEY TERMS

Farm Sustainability: system-based farming operations that meet society's present food and security needs, without compromising the ability for current or future generations to meet their needs (Lawin, Tamini, and Bocoum, 2018)

Personal Sustainability: person's ability to live a healthy lifestyle that includes creating harmony, interconnections, community, ethically responsible systems, and relatively high levels of awareness in one's values, thoughts, and behaviours (Makola & Sakwa, 2017).

Microfinance*:* provision of affordable financial services to those poor people who have been avoided or neglected by traditional financial services providers. It is the provision of a broad range of services such as savings, deposits, loans, payment services, money transfers, insurance to the poor, low-income households and their micro enterprises (Prathap & Mahesha, 2019).

Microfinance Institution: these are financial institutions that provide financial services to the poor who are typically excluded from the formal banking system because they lack collateral (Morduch, 2000).

Smallholder farmer: a farmer who practice agriculture on a small scale but producing both for subsistence and for the market (Chitongo, 2017).

Sustainability: entails satisfying the needs of current providers and recipients to engage in mutual value co-creation without decreasing the quality of future value co-creation (Shirada & Fisk, 2011).

1.9 RESEARCH METHODOLOGY

The methodology section will discuss the research paradigm, research design, the target population, sampling approach and how the study data will be analysed.

1.9.1 Research Paradigm

A research paradigm is a basic belief worldviews or systems that guide the researcher's inquiry (Guba & Lincoln, 2005; Healy & Perry, 2000). A researcher paradigm dictates pace on the research approach, research design utilised in a particular study as well as the data collection methods and analysis utilised in a particular study. The four main research paradigms used in social research are Positivism, Critical realism Pragmatism, and Interpretivism (Guba & Lincoln, 2005; Lawani, 2020). These are depicted in Table 1.1 below:

Table 1.1: The Four paradigms

Positivism	Critical Realism	Pragmatism	Interpretivism
-Observable reality -Experience of the world -Quantitative methods -Test Hypothesis -Theory to data	-Role of subjective information -Real world independence -Observing and interpreting meaning -Limited number of cases	-Positivism and Interpretivism -Practical effects of what is believed -Qualitative and Quantitative methods -Flexibility	-Subjective -Human experiences and events -Action and perception -Qualitative -Explore and interpret -Data to Theory

Source: Lawani (2020)

For the purpose of the current study, the critical realism paradigm was utilised, since it seeks to understand the ontological perspective, what is real about the role of microfinance on smallholder farmers sustainability in rural Zimbabwe. An ontological position entails the

researcher's relationship with the reality of his or her study, and a critical realist ontology is objective (Kothari, 2004). Epistemology, on the other hand is a theory of knowledge and how it is achieved, such as that knowledge about the world that is gained through social analysis Neegaard and Uhoi (2007), whilst methodology, are a set of techniques that are utilised by the researcher in investigating the reality (Healy & Perry, 2000). Based on the critical realism, methodological view, in the current study, the research questions focused on what needs to be explored and understood, while actual research interview questions equipped the researcher with the means to gain answers to research questions (Maxwell, 2012).

1.9.2 Research Design

Given the 'how?' and 'what?' investigative questions used to address the research problem in the study, the case study research design was used (Perry, 1998b). Case studies allowed for the smallholder farmers to share experiences about the role of microfinance on their farm and individual sustainability. Through their experiences, participants were able to describe their views of reality. This enabled the researcher to better understand the participants' actions(Yin, 2003). Case study enables the researcher to explore differences within and between cases. The goal was to replicate findings across case, also known as cross case analysis (Creswell & Creswell, 2018; Yin, 2003). This allowed the researcher to carefully choose cases so that prediction of similar results across cases or prediction of contrasting results to be possible.

1.9.3 Population and Sampling Approach

The target population were smallholder cattle farmers, in Masvingo province, Zimbabwe. Purposive sampling approach was used for the current study, and eight smallholder farmers participated in the current study. The participants that were included in the study were Smallholder cattle farmers; that is A1; Old resettled and communal farmers, based in Masvingo province, Zimbabwe, who have been receiving Microfinance services from Sustainable MFIs for a period of more than two years. The farmers excluded were Smallholder farmers outside Masvingo province; medium and large-scale farmers, farmers practicing crop farming, farmers who are not receiving MFI services or who are receiving MFI services from subsidised MFIs. Also excluded were Smallholder cattle farmers receiving Microfinance services from Sustainable MFIs for less than two years.

1.9.4 Data Collection Instrument

The interview guide was used to collect data in the current research. In total, the interview guide comprised of four sections, namely the demographic section, and the other three sections guided by the investigative questions of the study- MFI services access challenges; Uses of MFI loans; and Microfinance and Smallholder farmers sustainability.

1.9.5 Data Analysis

ATLAS.ti, was used for thematic analysis of data in the current study. Continuation of comparisons across each category facilitated the researcher to develop themes which had been used to report the findings in this section. Furthermore, cross examination of the categories was made through a process of Noticing, Coding and Thinking (NCT). Patton (2002) recommended NCT strategy as very useful when generating themes in qualitative research studies. The NCT process enabled the study to formulate a road map which assisted in determining themes relevant in answering the research questions.

1.10 ETHICAL CONSIDERATIONS

The regulations and guidelines of the University of the Western Cape (UWC) Research Ethics committee were adhered to, so as to protect possible negative impact to the participants who participated in this research study. The following measures were adhered to, in order to maintain high ethical standards:

1. *Informed consent* – The nature of research and the purpose of the study was explained to the participants prior participation to the research study. The researcher explained to the research participants about their rights to voluntary participation in the study. The researcher explained to the participants, about their rights to withdraw from the study at any time.

2. *Confidentiality*- The research participants' identities and their contributions were treated with strict confidence. Research participants were not asked to provide their identity details or any information that expose their identities like their names, cell phone numbers and addresses.

3. *Honesty*- Honesty was maintained in the reporting of research findings. In instances that the results were different from the researcher's expectations or were not favourable, they

were reported as is. The works of other scholars that were used in the study were also cited appropriately.

4. *Dignity*- The character and dignity of the participants was upheld, and they were not subjected to any embarrassing behaviour. In the event that the research participant felt uncomfortable with a question during interview, the researcher skipped the interview question (s).

1.11 CHAPTER CONTENT ANALYSIS

Recommendations by (Perry,1998b; Shambare, 2021) guide this PhD thesis into following a six-chapter structure which is a standard for PhD theses in the management discipline. The literature review is broken down into two separate but related chapters that is Chapter 2 and 3. Chapter 2 review the concept of Smallholder farmers whist Chapter 3 reviews literature on microfinance thus setting a platform for the conceptual frame. The thesis chapters are thus structured as follows:

Chapter 1: Introduction – the chapter provides the introduction to the research as well as the background and the scope of the research. The chapter outlines the rationale of the study, research problem, research questions, overview of the methodology and research framework.

Chapter 2: Literature Review (Smallholder farmers) – review of literature on smallholder farmers is presented in this chapter. The discussion captured the smallholder farming evolution in Zimbabwe, types of smallholders in Zimbabwe, challenges faced by smallholder farmers in Zimbabwe and the need to address smallholder farmers' challenges in Zimbabwe.

Chapter 3: Literature Review (Conceptual Framework) – Literature on microfinance is reviewed in this chapter. The evolution of microfinance, microfinance lending paradigms, microfinance delivery, microfinance products and the microfinance sector in Zimbabwe is reviewed. Microfinance and Smallholder farmers sustainability issues are also discussed in the Chapter. The need for further research as well the development of the conceptual framework is put forward in this Chapter.

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Chapter 4: Research Methodology – The chapter outlines a description of an appropriate research methods to answer the research questions, which is in line with the conceptual framework. The justification of using the research methodology is provided, by making an evaluation of alternative research designs and approaches, pronouncing the research

methodology selected for this study as the most appropriate to address the research problem. Ethical considerations, trustworthiness of data issues was discussed.

Chapter 5: Analysis and Results – Qualitative data collected from literature and interviews will be analysed in this chapter. With-in case and Cross-case analysis will form the basis of the data analysis. Constant comparison of categories will lead to the development of the '*Smallholder Farming Sustainability Pathway Framework'*, which is the revised conceptual framework.

Chapter 6: This chapter provides a detailed discussion on the research findings. The Chapter concludes by providing the implications of the research findings. The conclusions drawn from the research findings are presented within both practical and academic contexts.

1.12 CONCLUSION

Chapter 1 provided the background of the research problem that motivated the researcher to carry out the study. The Chapter also presented the statement of the problem, research objectives and research questions. Furthermore, a brief overview of the research methodology which was used in the study is provided. The next chapter provide the review of literature on development of smallholder farming in Zimbabwe.

CHAPTER 2

SMALLHOLDER FARMING IN ZIMBABWE

2.1 CHAPTER OVERVIEW

This chapter details the historical development of smallholder farmers in Zimbabwe. The chapter is divided into three sections namely, (1) smallholder farming in the pre-independence Zimbabwe; (2) smallholder farming in the post-independence Zimbabwe and (3) smallholder farming after the Fast-Track Land Reform programme (FTLRP). The chapter also details the smallholder farming support policies as well as the challenges faced by smallholder farmers in Zimbabwe.

2.2 THE LITERATURE REVIEW PROCESS

In order to conduct as well as present a thorough review of the research issues, the literature review component of this thesis is separated into two segments the literature on the selected industry and the literature on the appropriate theoretical frameworks (Perry, 1998b). The former covers smallholder farming and is the focus of this particular chapter. The theoretical literature, focusing on the microfinance and its role on smallholder farmers sustainability, is discussed in Chapter 3. This led to the development of the conceptual framework as well as research questions that guide this particular study. Figure 2.1 below outlines the sequence of the rest of the Chapter.

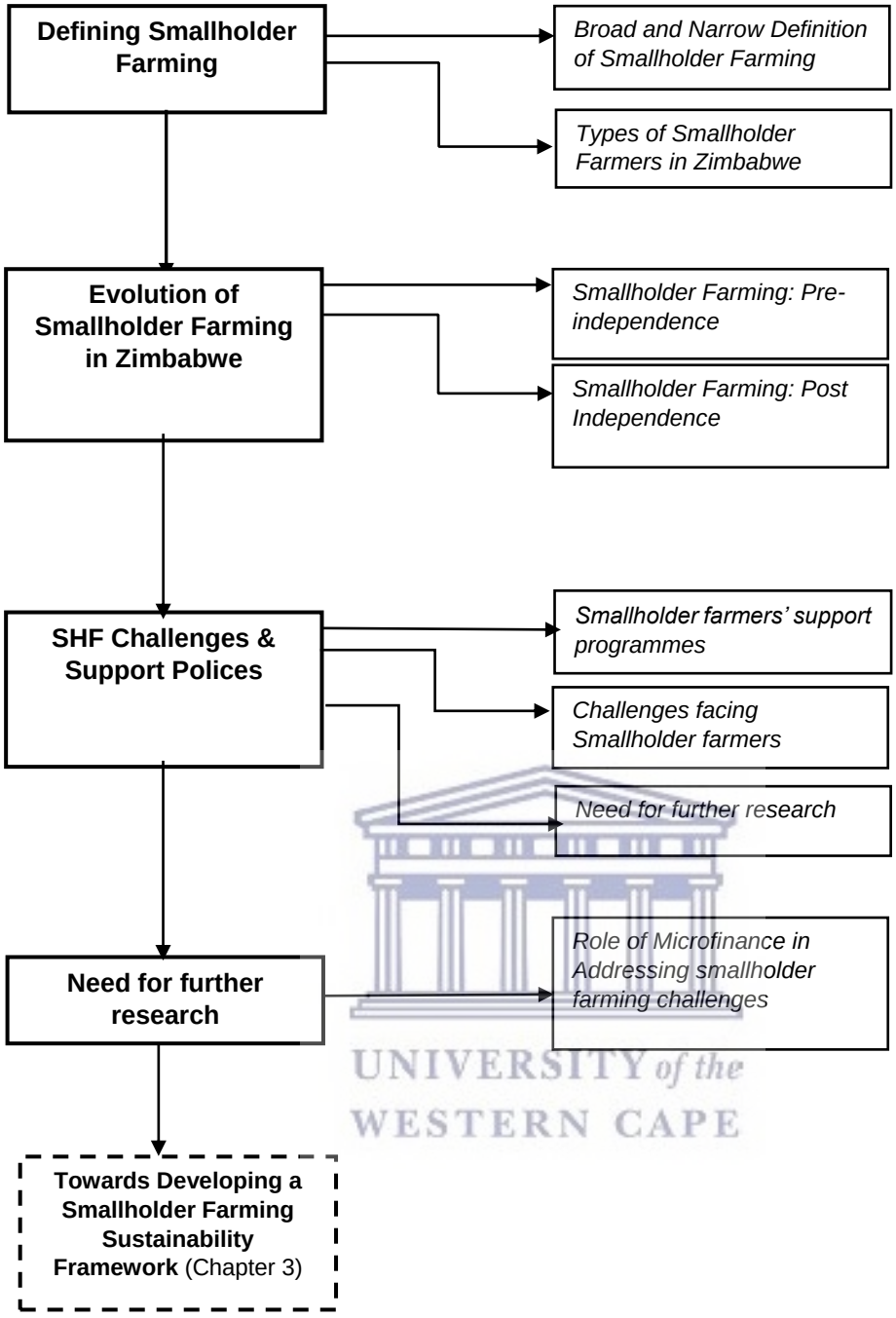

Figure 2.1 Literature review process

Source: Developed for this research

2.3 INTRODUCTION

The current agrarian structure in Zimbabwe is a result of reconfiguration, mainly caused by the Fast Track land reform Programme (FTLRP) which started in the year 2000 (Shonhe & Scoones, 2021). Zimbabwe has a total land area of 39 million hectares, and 33.3 million hectares is used for agricultural purposes (FAO, 2021). FAO (2021) further states that agricultural activities provide employment and income for 60-70 percent of the population, supplies 60 percent of the raw materials required by the industrial sector and contributes 40 percent of total export earnings and agriculture contributes approximately 17 percent to Zimbabwe's GDP. Zimbabwean farmers are categorised in three categories, namely smallholder farmers, medium scale farmers and large-scale farmers (Moyo, 2016; Shonhe & Scoones, 2021). This Chapter conceptualises the smallholder farming concept, in the context of Zimbabwe.

2.4 DEFINING SMALLHOLDER FARMERS IN ZIMBABWE

This section provides the broad and narrow definition of Smallholder farmers in Zimbabwe. The section also presents the three types of smallholder farmers in Zimbabwe, that is the communal farmers, Old resettled farmers and the A1 farmers.

2.4.1 The Broad Definition of Smallholder Farmers

The broad definition of smallholder farmers focuses on the small-scale nature, land size and what the farmers do with the farm produce they produce in their farms (Tatsvarei, Mushunje, Ngarava & Makate, 2018). Another alternative approach to defining smallholder farmers in Zimbabwe over and above the aspects put forward in the broad definition is that, there is need to consider other factors like the composition of the smallholder farming sector in Zimbabwe, the type of crops and livestock they farm and what influence their type of farming (Mazwi, Chemura, Mudimu & Chambati, 2019). Smallholder farmers in Zimbabwe comprise of communal farmers, old, resettled farmers and A1 resettled farmers Tatsvarei et al. (2018:1877). Figure 2.2 below show the composition of the smallholder farming sector.

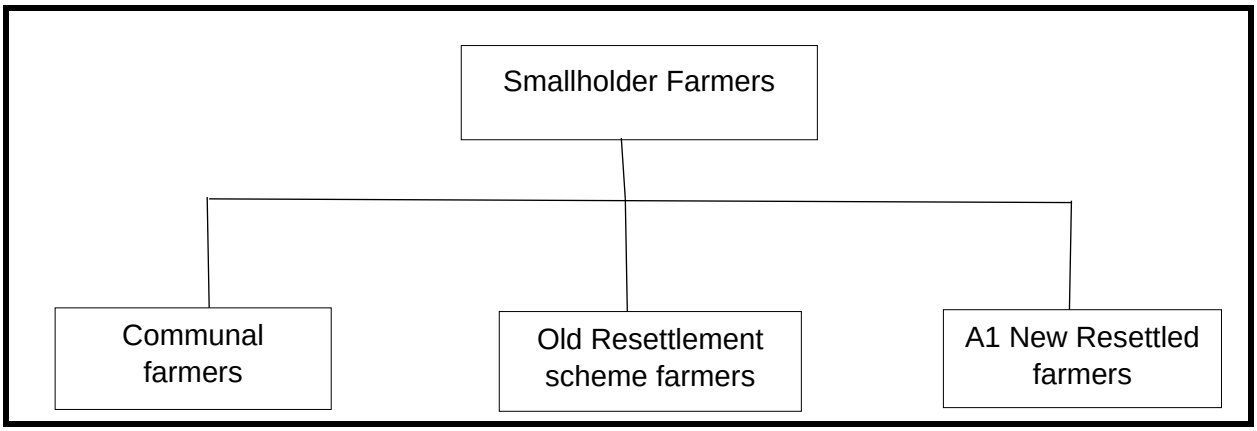

Figure 2.2: Composition of Smallholder farmers in Zimbabwe.

Source: Researcher's Own Construct

Smallholder farmers in communal areas and resettled areas have different crop and livestock production practices which are influenced differently by government policy and the effectiveness of producer organisations (Mutami, 2015:140).It is important to note that it is the magnitude of the support the smallholder farmers have from the government, producer organisations through contract farming, Non -Governmental Organisations through tight value chain farming support and MFIs through tight value chain farming support that determine the level of surplus farm produce that the smallholder framers sell to the market (Zikhali, 2008). Over the years, smallholder farmers had access to credit facilities, though the greater proportion of these services came from contractors and group lending where the group is regarded as the collateral (Zikhali, 2008). For the purpose of this current study the broader definition is used and is considered to mean:

1) farmers who practice agriculture on a small scale, using a maximum of 10 hectors for both crop and livestock farming but producing both for subsistence and for the market,
2) a communal, old resettlement scheme or an A1 resettlement model farmer and,
3) farmers whose crop and livestock production practices are influenced mainly by government policy and the effectiveness of producer organisations.

2.4.2 The Narrow Definition of Smallholder farmers

A smallholder farmer is farmer who practices agriculture on a small scale but producing both for subsistence and for the market (Chitongo, 2017:27). Masvongo, Mutambara & Zvinavashe (2013) describe smallholder farmers as rural producers who farm using mainly family labour and for whom the farm provides the principal source of income. The term small scale has been used by a number of scholars to describe smallholder farmers. Musemwa and Mushunje (2011:4828) stipulate that smallholders are large populations of rural farming households who

produce on a small-scale basis. In support of that, Munongo (2012) also states that smallholder sector is characterised by small size of landholding and factors of production are limited leading to small scale production.

In regard to this study, smallholder farmers are people who practice agriculture on a small scale, using a maximum of eight hectares for both crop and livestock farming but producing both for subsistence and for the market. In Zimbabwe, production in smallholder farming areas has been sufficient for both consumption and the market, especially in those years where farmers received sufficient rainfall (Tatsvarei et al. 2018:1880).

2.4.3 Types of Smallholder Farmers in Zimbabwe

The broad and the narrow definition of smallholder farmers in Zimbabwe, as indicated above cannot be complete, without, mentioning the types of smallholder farmers in Zimbabwe. As shown in Figure 2.2, there are basically three types of smallholder farmers in Zimbabwe, namely communal farmers, old resettled farmers and A1 farmers.

2.4.3.1 Communal Farming

Communal farming is done in communal lands that was inherited from the colonial system. Communal lands in the colonial era were owned by marginalised black indigenous farmers who practiced subsistence crop and livestock farming (Scoones, Marongwe, Mavedzenge, Murimbarimba, Mahenehene & Sukume, 2011). In support of that, Matondi (2010) suggested that out of above a million estimated smallholder farmers in Zimbabwe, 150 000 are responsible for commercial production of cotton that is sold at the market. In addition to that, there are 140 000 smallholder commercial tobacco farmers in Zimbabwe, and 3 million people depend on tobacco production for their livelihood (Bafana, 2022).

According to Matondi and Dekker (2011) communal lands in Zimbabwe are mainly located in natural regions three to five, which are characterised by low rainfall, high temperatures, poor agricultural activities and with land sizes ranging from 0.1 hectare to less than 4 hectares. The ownership of communal lands is vested in the state. Chiefs and headmen superintend allocation of sanctuary rights to the farmer, who bequeath it along primogeniture lines, in the event of the original owner passing on (Zikhali, 2008). Productivity has generally been low in communal areas, though issues of climatic conditions and soils also come to the fore. Despite this, the farmers under communal tenure have traditionally been the sources of food security in the country.

2.4.3.2 Old Resettlement Scheme

Old resettlement schemes began in the early 1980s and were based on three permits. The three permits were allocated to resettled farmers under the first resettlement phase which consisted of three hectares arable land: one-acre residential stand and a third of a hectare for grazing land. Matondi (2011) ascertained that most of the people who benefited from the old resettlement scheme were facilitated by civil servants or the headman. In addition, to that, agricultural extension officers were also regarded as influential in reallocation of these resettled land, as they had power to recommend withdrawal permits, for those farmers who were deemed to be unproductive (Matondi, 2011).

Agricultural production in old resettlement schemes has been sufficient for subsistence and for the market, especially in the years, the farmers receive sufficient rainfall. Moyo (2016) stipulates that resettled farmers major source of income came from crop production which accounted for two-thirds of their overall income. With regard to access to finance, Zikhali (2008) noted that over the years, resettled farmers had access to credit facilities, with greater part of credit facilities coming from contract farming private companies and group lending facilities, where the 'group' was considered as collateral.

2.4.3.3 The A1 Resettlement Model

The A1 resettled model or new resettled farmers were established by the government in 2000 to 2010 under the Fast Track Land Reform Programme (FTLRP). The A1 farming model was established for both self-sufficiency and possibly some surplus for the market. According to Zikhali (2008), under the A1 model, a farmer was allocated between 5 to 8 hectares for residence and cultivation. Under the A1 model, farmers are given a permit from the District Administrator's office after confirmation from Ministry of Lands that they are bona fide land beneficiaries (Matondi & Dekker, 2011). In addition, in A1 model, there is empowerment of traditional leaders in compliance enforcement in natural resources management, land disputes, inheritance and land use (Tadesse, Holden, Oygard, & McPeak, 2016).

Access to finance by A1 farmers, has been hindered mainly by tenure insecurity of A1 farms. Earlier research by Moyo (2011) showed that about 16% of A1 beneficiaries had been threatened with eviction at some point, particularly those in better agro-ecological regions. In addition, in his latter research, Moyo (2016) states that A1 lease agreement is not explicit on the inheritance issues. The lease insists on one farm per household and does not allow for

group ownership or subdivision of farms by siblings. A key source of tension also relates to the deaths of parent landholders and how succession is handled in such a scenario (Moyo, 2016).

It must be noted that major differences of the three smallholder farmers lies in the land area and the time the land was distributed to the farmers. Communal farmers have 0.2 to 4. Old resettled farmers have 3 hectares of arable land; 1 acre of residential stand and 1/3 hectare grazing area whilst A1 farmers have 5 to 8 hectares of land. The other notable differences are that the communal land was given to the farmers in the pre-independence Zimbabwe, old resettled farmers were given the land between 1980 and 1985, just after independence, whilst A1 farmers were given the land during the Fast Track Land Reform Programme (FTLRP), which happened period year 2000 to 2010. The smallholder farmers practice both crop and livestock farming.

2.5 EVOLUTION OF SMALLHOLDER FARMING IN ZIMBABWE

2.5.1 SMALLHOLDER FARMING IN PRE-INDEPENDENCE ZIMBABWE (1890-1979)

Smallholder farmers in Zimbabwe emerged mainly due to land struggles that characterised the Southern African country since its colonization in 1890 (Nyandoro, 2012). From 1890 to 1923, Zimbabwe (then Rhodesia) was ruled by the British South Africa Company, under a Charter from Britain (Ndlela & Robinson, 2007). During this time, the Africans were forcefully removed from their homes and resettled in rural areas to make way for the large white commercial farmers. Africans were forced to remain in their newly resettled places, which were known as Native Reserves, and later renamed to Tribal Trust Lands from the 1960s onwards. After independence, Tribal Trust Lands were yet again designated as Communal Lands (Nyandoro, 2019:145).

The forced resettlement created the dualistic system of agriculture that still is in existence in present day Zimbabwe. The Land Apportionment Act which was passed in 1930, legalised the division of the country's land resources between blacks and whites (Nyandoro, 2019:112). On one hand, the European settlers-cum-farmers were given exclusive rights and access to the best farmlands. In addition, these farmers received various forms of support and assistance. The state policy undermined African agriculture systematically by taxing and manipulating it, for example the Maize control Act of 1934 that subsidised white farmers only (Moyo, 2004:6). In addition, the beef production model was highly technocratic and was based on a restricted model of beef ranching which was supported by a tightly regulated marketing system

dominated by white farmers (Mavedzenge, Mahenehene, Murimbarimba, Scoones & Wolmer, 2008). As a result, the white commercial farmers were born.

On the other hand, the majority black Africans were confined to Native Reserves, which were largely arid and less suitable for agriculture. The soils were infertile and rocky. There was very little rainfall, which made both crop and animal husbandry difficult. Part of the Native Reserve strategy was to drive the Africans into poverty so that they would sell their labour in the commercial farms (Tatsvarei et al. 2018). The Africans that remained in the Native Reserves were the minority and mostly women, raised crops and animals mostly for personal consumption. Any surplus was sold off or traded mostly within the Native Reserves. This group of surplus-oriented farmers can be the earliest form of smallholder farmers in Zimbabwe. Even, today, nothing much has changed; the dualistic farming in Zimbabwe is still present and even encouraged – commercial and smallholder farmers (Nyandoro, 2019). Table 2.1 below, shows the history of the land policy in Zimbabwe from 1891 to 1980.

Table 2.1: Zimbabwe – History of Land Policy 1890–1979.

YEAR	LAND ACT	PURPOSE	RESULT
1891	The Lippert Concession	White settlers to acquire land rights from native Zimbabweans.	BSAC buy concession and uses it as basis for land appropriation.
1898	Native Reserves Order in Council	Create Native Reserves in the face of mass land appropriation by White settlers.	Native reserves created haphazardly in low potential areas and subsequently become CAs.
1931	Land Apportionment Act	To separate by law, land between Black and White.	The high potential areas become White large-scale privately-owned farms.
1951	Native Land Husbandry Act	To enforce private ownership of land, destocking and conservation practices on Black smallholders.	Mass resistance to legislation fuelling nationalistic politics. Law scrapped in 1961.
1965	Tribal Trust Land Act	To change the name of Native Reserves and create trustees for the land.	Because of population pressure, tribal trust lands became degraded “homelands”
1969	Land Tenure Act	To replace the Land Apportionment Act of 1931 and finally divide land 50% White and 50% Black.	Combined with the Tribal Trust Land Act.

Source: Ministry of Lands, Land Reform and Resettlement (2003)

2.5.1.1 The status and recognition of smallholder farmers in pre-independence Zimbabwe

The Land Tenure Act of 1969 as shown in Table 2.1 above marked the first recognition of smallholder farmers in the pre-independent Zimbabwe. The Land Tenure Act of 1969 replaced the Land Apportionment Act, and divided land into European, African and National land. European and African land comprised 45,000 acres each, while National land stood at 6,500 acres (Poulton, Davies, Matshe & Urey, 2002). The Land tenure act of 1969 gave birth to the small-scale farmers to own larger pieces of land averaging 45 hectares. The small-scale farmers were different from those communal farmers who occupied communal areas in three ways, (1) they occupied larger and relatively fertile pieces of land than communal farmers, (2) they had access to farming training services by agricultural extension officers, and (3) they had title deeds for the land they occupied (Moyo, 2004).

Despite having title deeds and access to farming training services, the new crop of smallholder farmers still faced a challenge of access to finance from banks which were biased to financing white large-scale farmers and access to both domestic and foreign markets for their farm produce. The markets for their surplus produce were the communal farmers who were living in reserves and other smallholder farmers who had benefited from the purchase of land. In 1977, the Land Tenure Act was amended by the Rhodesian parliament, which further reduced the amount of land reserved for white ownership to 200,000 hectares, or 500,000 acres. Over 15 million hectares were thus opened to purchase by persons of any race (Moyo, 2011).

2.5.2 Smallholder Farming in Post-Independence Zimbabwe (1980 to date)

Zimbabwe attained independence on the 18th of April 1980 after a 14-year struggle known as *Chimurenga II* (The 2nd War of Liberation). *Chimurenga I* or the 1st War of Liberation was fought circa. 1893 to 1896. The land question and in particular resisting the forced resettlement of the African majority was the motivation for both *Chimurenga I and Chimurenga II.* Zimbabwe was declared independent from the British colonial rule. According to Musemwa and Mushunje (2011), at independence 6000 white farmers owned 15.5 million hectares; 8500 black farmers operating on a small scale held about 1.4 million hectares, and approximately 4.5 million communal farmers held 16.4 million hectares. The post-independence smallholder farming agrarian regime went through two phases namely, the first phase land resettlement (1980 to 1998) and the Fast track land reform programme (FTLRP) which began in the year 2000.

2.5.2.1 First phase land resettlement (1980-1998)

The first phase of land resettlement programmes was launched by the Zimbabwean government in September 1980, (Musemwa & Mushunje, 2011:4827). Musemwa and Mushunje (2018) further stipulated that the Government of Zimbabwe acquired 3 498 444 hectares of land and resettled 71000 families under this first phase of land reform programme in the period between 1980 and 1998. The programme provided crop input packs (seeds, fertilizers and pesticides) and tillage services for half a hectare to each family in the first year of settlement (Utete, 2003). Progress was achieved in providing infrastructure for the black settlers in the early stages of resettlement. The majority of black smallholder farmers experienced real increases in incomes, which exceeded those of their counterparts in communal areas (Utete, 2003). Some settler families invested in substantial land improvements, permanent housing and production and transport equipment such as tractors and scotch carts. In addition, some families diversified into specialized crops like tobacco, paprika and cotton. Phase 1 of the resettlement programme achieved an ex-post economic internal rate of return (EIRR) of 21 percent, well above the 14 percent at its planning stage (Moyo, 2001).

2.5.2.2 Fast track Land Reform Programme (2000 to date)

Up to the year 2000, smallholder farmers included communal farmers and old resettlement scheme farmers. However, the addition of A1 farmers has broadened the base of smallholders who now command the majority of the land used for agricultural purposes (Shumba & Whingwiri, 2006:27). The land reform of 2000 resulted in a massive change in agrarian structure. The Fast Track Land Reform Programme (FTLRP) allocated over 4,500 large-scale farms to new farmers, making up around 20 per cent of the total land area of the country, according to official figures (Scoones, Mavedzenge, Murimbarimba & Sukume, 2018:811). This represented over 145,000 new farm households in A1 (smallholder) schemes, with arable allocations of 5–6 ha, and around 16,500 further households occupying larger, medium-scale A2 farms (Scoones et al. 2018:811).

Recent research by Sonhe, Scoones and Murimbarimba (2021:603) mentioned that land reform in Zimbabwe reform was aimed at transforming the former dualistic structure, creating a ‘tri-modal’ structure which involves small-scale farms, including communal areas, as well as old and new (A1) resettlement areas (total 1.3 million farms, over 25.8 million ha), medium-scale farms (A2 farms, plus older small-scale commercial farming areas, total 31,200 farms, over 4.4 million ha) and large commercial farms and estates (total 1,618 farms, over 2.6 million

ha). The FTLRP of 2000 thus created another new set of smallholder farmer called the A1 farmers who were allocated relatively smaller pieces of land as compared to their A2 farmers' counterparts. According to Scoones et al. (2011), by 2009 the agrarian structure in Zimbabwe was as shown in Table 2.2 below:

Table 2.2: Agrarian structure in Zimbabwe as at 2009.

	1980	**2000**	**2009**
Land category	Area (million ha)	Area (million ha)	Area (million ha)
Communal areas	16.4	16.4	16.4
Old Resettlement	0.0	3.5	3.5
New Resettlement: A1	0.0	0.0	4.1
New Resettlement: A2	0.0	0.0	3.5
Small-scale commercial farms	1.4	1.4	1.4
Large-scale commercial farms	15.5	11.7	3.4*
State farms	0.5	0.7	0.7
Urban land	0.2	0.3	0.3
National parks & Forest land	5.1	5.1	5.1
Unallocated land	0.0	0.0	0.7

Source: Scoones et al. (2011)

Drawing from the discussion above, the smallholder farmers in Zimbabwe emerged from the pre-colonial era as communal farmers and the post-colonial era as old resettled farmers (1980) and the newly resettled A1 farmers (2000). Smallholder farmers in the context of this study are communal farmers, old resettlement and new resettled A1 farmers.

2.6 SMALLHOLDER AGRICULTURE SUPPORT PROGRAMMES IN ZIMBABWE

Table 2.3 below provides the support programmes that have been availed to smallholder farmers by both, the government and the private sector.

Table 2.3: Smallholder Farmers' Support Programmes

Programme Name	**Year**	**Details of the Programme**	**Challenges**
Operation Maguta	2005/2007	Smallholder farmers' support programme aimed at boosting food security and agriculture production. Targeted 250000 hectares of cultivated land under cereal production In 2007 the program targeted 80000 hectares under cereal production.	Partisan distribution of inputs in communal areas Squeezing out of genuine farmers Secularised input distribution Diversion of inputs to the black market
Presidential Well Wishers Special Agriculture Input Scheme (PWSAIS)	2010/2011	Smallholder farmers' support programme where seeds and fertilisers were distributed in each district Targeted 800000 communal and old resettled farmers	Inputs distributed through ZANU PF structures Opposition party members were not allocated inputs in communal areas Large quantities of fertiliser looted by politicians
Agriculture Input Support Programme (AISP)	2013	Targeted 1.6 million smallholder farmers households Targeted communal, old resettled and A1 farmers, with each farmer receiving 50kg of lime; 50kg of Compound D fertiliser; 50kg of Ammonium Nitrate and 10kg of maize seed.	Late input deliveries to farmers Farmers beneficiaries, had to incur high transport costs to the GMB depots to check on both the availability and collection of inputs Government failed to clear its debt with agricultural input suppliers of R193 million. GMB also failed to pay grain deliveries by Smallholder farmers, as the government was owing it approximately R159 million
Private Contractors		Farmers sign contracts agreements with financiers on a specific hectarage and agree to sell the produce to the financier	Mistrust between private financiers and farmers

Command Agriculture	2016/2017	Smallholder support programme meant to stimulate maize production, thereby reducing imports.	Late receipt of inputs Insufficient inputs Inputs being distributed on partisan grounds Late payment of maize delivered to the GMB.
Pfumvudza	2020/2021	Targeted 1.8 million smallholder farmers Each farmer was supported with a standard input package to produce one tonne of cereals; 0.2 tonnes of sunflower or soya beans.	Failed to address food security challenges as evidenced by lifting of import tariffs for mealie meal in May 2022

Source: Literature Review

2.7 CHALLENGES FACED BY SMALLHOLDER FARMERS IN ZIMBABWE

Sustainability of smallholder farmers can be enhanced by the ability of Microfinance Institutions to address the general challenges that are faced by the farmers. This section details the general challenges that are faced by smallholder farmers in Zimbabwe and these include access to finance, liquidity problems, access to markets, lack of technological innovations and corruption.

2.7.1 Access to Finance

Smallholder farmers in Zimbabwe face a challenge of lack of access to sufficient and reliable credit lines to fund their agricultural ventures. Scoones, Mavedzenge, Murimbarimba, & Sukume, (2018) highlights that providing credit, inputs, extension support, and guaranteed markets are some of the major challenges facing smallholder farmers in Zimbabwe. Mutambara, (2016:264) accentuates that accessing inputs, underutilisation of certified seeds, underutilisation of fertilisers, distant and weak markets and high tillage costs were the major challenges facing irrigation farmers in Chiredzi. In addition, Mutambara, (2016) underscores that 70 percent of the farmers have no bank accounts and this becomes a major barrier to accessing bank loans, as 74 percent had no access to bank loans.

According to Scoones et al. (2018), the farmers had bad experiences with financial institutions, attesting to the extractive engagement of farmers by financial institutions. In addition, lack of faithfulness of smallholder farmers in loan repayments prevents banks and input suppliers from extending credit lines to farmers (Scoones et al. 2018). On the same note Mutambara (2016) mentioned that, some farmers could not access loans because the only assets they had, cattle and land, could not be accepted as collateral by financial institutions. Financial institutions were also not offering financial products that were compatible with the farmers' needs and contextual requirements of the poor farmers (Mutambara, 2016). Generally, Mutambara (2016) showed that smallholder farmers in Zimbabwe were financially excluded because of lack of collateral. Latter research by, Mutambara and Mujeyi, (2020:7) postulates that cotton farmers in Midlands and Mashonaland West province, Zimbabwe highlighted high cost of major inputs such as fertilizers, chemicals, labour and seed as serious challenges affecting the independent production of cotton by farmers.

Mago (2013) further notes that traditional banks argue that it is problematic to provide financial services to the rural areas because of their remoteness, which brings very high transaction costs hence raising sustainability questions. Other challenges noted for Zimbabwe include

adverse selection and information asymmetry leading to moral hazard. In support of that, Shonhe and Scoones (2021) states that, finance for agriculture is extremely limited, constraining opportunities for small- and medium-scale resettlement farmers alike. Banks have so far rejected either permits to occupy in the A1 areas and leases in the A2 areas as a basis for lending. State investments have been limited and are often misdirected and subject to corruption. Western donors have not supported land reform areas as these are deemed 'contested areas' and so are effectively subject to 'sanctions' (Scoones et al. 2018).

As a solution to some of those challenges Scoones et al, (2018:23) ascertains those contracting arrangements with agribusiness companies potentially address many of the constraints of smallholder operations, offering opportunities for the emergence of petty commodity production and a dynamic of accumulation from below. 'Accumulation from below' in the context of agrarian studies refers situations where much larger numbers of surplus-producing farmers emerge, who begin to compete with large scale commercial farmers (Cousins, Dubb, Hornby & Mtero, 2018).

2.7.2 Liquidity problems

In Zimbabwe, since the year 2000 after the FTLRP, there have been negative indirect effects on land related investments in Zimbabwe (Scoones et al. 2018:204). Marketing and input supply intermediaries have been unable to get finance as international loans for financing new operations by smallholder farmers have not been forthcoming. In addition, high interest rates and the high cost of money have also been a major challenge to smallholder farmers which resulted in liquidity problems and severe shortage of low-risk cash for financing agriculture. The demand for financing in all productive sectors, mining, manufacturing is so high that the financiers prefer to lend to lower risk and high immediate return areas like retail operations and mining. The result is that there is little or no leftover to finance agricultural investments (Scoones et al. 2018:204). In addition, the farmers are delivering their produce to the market, for example maize to the GMB, which is taking time to make payments (Mazwi et al. 2019). The farmers are also facing difficulties in accessing physical cash for payments made in their bank accounts for their tobacco deliveries (Shonhe, 2021).

2.7.3 Access to Markets

Market connections are also a hindrance to smallholder farmers' quest to increase their farming production in Zimbabwe. Scoones et al. (2018:108) stipulates that market connections often remain underdeveloped This is due to market costs, notably transport and other market challenges, including bribes and police roadblocks remain challenges. In addition, there is lack of opportunities for value addition in production remains limited as most smallholder farmers are only involved in primary production, rather than processing (Scoones et al. 2018:108).

Smallholder farmers often have difficulty accessing markets because of inadequate infrastructure, low productivity levels, inconsistences in supply and low quality due to poor post-harvest practices (FAO, 2020). By enhancing extension and advisory services, improving access to financial services and facilitating market linkages, the Livelihoods Food Security Programme (LFSP) is empowering rural people, especially smallholder women farmers, with organizational skills and agricultural knowledge to participate in local and external markets and to enhance their savings. This includes building their capacity to meet the requirements of local and international buyers. (FAO, 2020).

2.7.4 Lack of Technological Innovations

Smallholder farmers in Zimbabwe are also facing a challenge of low use of agricultural technology (Mutami, 2015). As stipulated earlier, the smallholder farmers are going commercial though on a small scale, and the commercialisation is however associated with technological innovations and the need for credit to fund the farming operations. Business and technological innovation; credit financing and capacity issues are all important in developing farming entrepreneurial opportunities and this need external support (Scoones et al. 2018:107). The government however need to be significant in shaping innovation, but this has largely been absent, as have donors or Non-Governmental Organisations (NGOs) (Scoones, 2018:107).

On the same note, Muzari, Kupika, Danha and Mapingure, (2013) study the impacts of agricultural technology use on productivity and food security among smallholder farmers in Makonde District. Muzari et al (2013) found out that whilst agricultural technologies such as conservation tillage and irrigation resulted in larger crop yields among smallholder farming households, the rate of adoption of these technologies in Makoni District households was found to be relatively low. This was one of the possible reasons why the ward is a food deficit

area, as indicated by the low per capita food production and consumption statistics found in their analysis.

2.7.5 Failure of Government support programmes

The other challenge facing smallholder farmers in Zimbabwe is that of corruption associated with government smallholder farmers support programmes. In 2007, the Maguta programme was extended to 800 000 hectares of land under cereal cultivation. Operation Maguta targeted mainly communal farmers, leaving A1 farmers who were also facing agricultural input challenges. Critics of Operation Maguta point to the partisan distribution of inputs, particularly in communal areas. There was also gross abuse of this scheme resulting in the squeezing-out of genuine farmers, secularized input distribution, and the diversion of inputs to the black market by unscrupulous profiteers (Mutami, 2015). In addition to that the Maguta programme that was launched in 2010 season was also marred by late delivery of agricultural inputs. Like the Operation Maguta, critiques of the PWSAIS argued that agricultural inputs were largely distributed through ZANU PF structures, hence allegations that opposition supporters were not allocated inputs, particularly in communal areas (Mutami, 2015:153). Mutami (2015) further assets that, in most provinces, large quantities of fertilizers were reportedly looted by senior politicians, resulting in even ZANU PF supporters failing to access the inputs. Lastly, the Command Agriculture was adopted for the 2016/2017 agricultural season aiming to reduce food imports (Mazwi et al. 2019:237). Like other agricultural input support polices mentioned earlier, the challenges faced by smallholder farmers in the Command Agriculture era were late receipt of inputs, insufficient inputs, inputs being distributed on partisan grounds and late payment of maize delivered to the GMB.

2.8 NEED FOR FURTHER RESEARCH

2.8.1 Challenges in Smallholder Farming

Studies by (Mazwi et al. 2019; Moyo, 2011; Mutami, 2015; Mutambara, 2016; Mutambara & Mujeyi, 2020; Scoones et al. 2018; Scoones, 2018; Shonhe, 2021; Shonhe & Scoones, 2021), evidenced that there are a number of problems that are being faced by smallholder farmers in Zimbabwe. These challenges include limited access to finance, access to markets, high input costs, liquidity challenges, lack of foreign investments and lack of technological innovations. This is despite agricultural support programmes from both the government and the private sector. Discussions in this chapter on agricultural support programmes offered to smallholder farmers by both the government and the private sector also have their own challenges which are hindering smallholder farmer increased production.

2.8.2 Microfinance and Smallholder farmers access to finance

Microfinance has been in most countries a solution to smallholder farmers challenges relating to access to finance (Diagne & Zeller, 2001 in Malawi; Abate et al. 2016 in Ethiopia); adoption of new agricultural technology (Abate et al. 2016 in Ethiopia; Chowdhury, Smits & Sun, 2020); access to markets (Thayaparan, 2017). In the above cases, microfinance provision based on either of the two, or a combination of both competing microfinance paradigms, the sustainable microfinance lending paradigm and the subsidised lending paradigm.

The sustainable microfinance lending paradigm's key tenets are (1) high interest rates, (2) targeting economically active poor clients who have assets and skills to carry out revenue generating projects. This study thus acknowledges the need to address challenges facing smallholder farmers in order to improve smallholder production and enhance food security. Some of the smallholder farmers are however not prepared to pay high interest rates and do not have the requested skills nor assets, except for land required by sustainable MFIs. This research thus seeks to explore 'How microfinance is contributing to the sustainability of smallholder farmers in Zimbabwe?' given the mismatch between what the sustainable MFIs require from the farmers and what the farmers have to offer.

2.9 CONCLUSION

In this chapter the historical development of smallholder farmers in Zimbabwe and the definition of smallholder farmers were provided. The types of smallholder farmers in Zimbabwe, smallholder farmers' support programmes in Zimbabwe and challenges were also outlined. The chapter also provided the need to address challenges that are faced by smallholder farmers in Zimbabwe. These invariably provide a platform on which theoretical discussion is based on Microfinance which is the focus of Chapter 3.

CHAPTER 3
THE CONCEPTUAL FRAMEWORK UNDERPINNING MICROFINANCE AND SMALLHOLDER FARMING SUSTAINABILITY

3.1 CHAPTER OVERVIEW

This chapter provides the presentation of research issues that relate developing an analytical framework that underpin microfinance and smallholder farmers sustainability. The various aspects include microfinance competing paradigms, microfinance delivery system, microfinance products and services and the role of microfinance on smallholder farming will be presented. Next a conceptual model is presented. Finally, the identification of the research gap and problem, followed by the formulation of the research question and investigative questions conclude this chapter. Figure 3.1 outlines the sequence of the rest of the chapter.

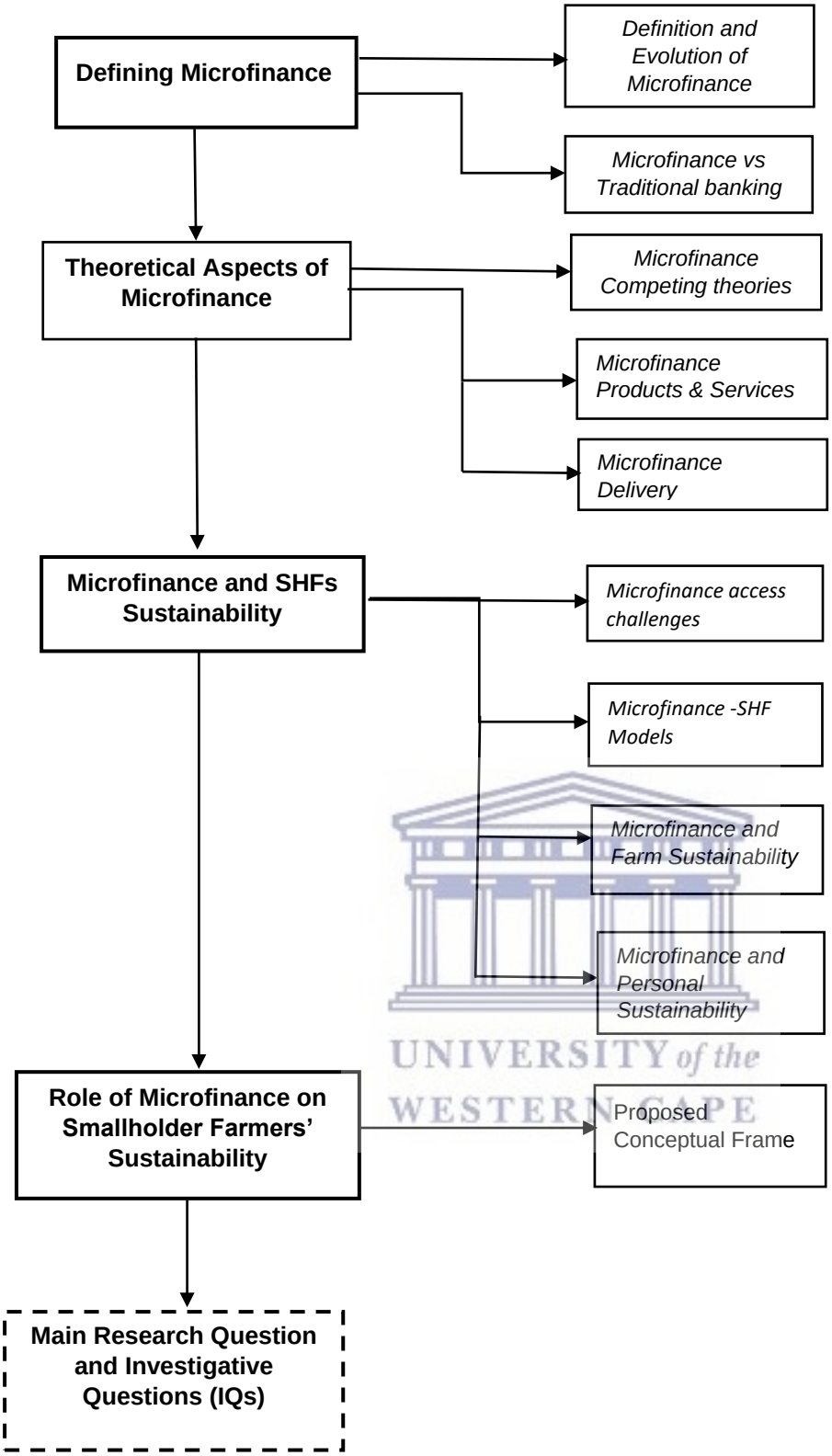

Figure 3.1: Structure of the conceptual literature review

Source: Developed for this research

3.2 INTRODUCTION

Sustainable MFIs lend money to small clients that run profit generating projects, use their profits to repay back the money plus high interest rates so that the sustainable MFIs can operate sustainably, thereby increasing outreach and depth of their product offerings to clients (Ledgerwood, 2013). The sustainable microfinance lending programmes are based on two key tenets, that is (1) levying high interest rates in order to build sustainable MFIs; (2) viewing their target market of the poor as clients and not beneficiaries (Morduch, 2000). Against that background the core difference between microfinance and commercial banking is that microfinance need to focuses on the borrowers or client's personal sustainability first before focusing on sustainability of borrowers' projects or business. The Grameen bank 16 Principles or decisions that guide personal sustainability, calls for the need for Sustainable MFIs to be guided by the 16 principles, in order to strike a balance between their clients, in this case Smallholder farmers farm and personal sustainability, thus differentiating their services from the traditional banking system (Yunus, 2007).

3.3 DEFINING MICROFINANCE

The common definitions of microfinance revolve around its functions, target clients, and services provided. Table 3.1 shows the definitions of microfinance as conceptualised in literature. The category in which each definition can be linked to:

Table 3.1: Definition of Microfinance

Author	Definition	Category
Ledgerwood (1998)	provision of financial services to low-income clients.	Financial services provided and target customers
Rutherford (1999)	Basic financial intermediation.	Financial services provided and target customers.
Robinson (2001)	financial services which are small scale in nature (savings and credit) that are provided to people for small scale faming, people who operate micro and small enterprises where goods are produced are produced, repaired , recycled or sold , who provide services , who raise their income from renting out small amount of land , vehicles , draft animals , machinery or other tools and to other individuals and groups in both rural and urban areas of developing countries.	Financial services provided and target customers
Beck, (2015)	financial services to households and micro-enterprises that are excluded from traditional commercial banking services. Typically, these are low-income, self-employed or informally employed individuals, with no formalized ownership titles on their assets and with limited formal identification papers.	Target customers
Yunus, (2007)	Microfinance is a process of ensuring access to financial services at an affordable cost to vulnerable groups, such as low-income persons	Target customers
RBZ, (2015)	provision of a range of financial services that include small loans, savings, and money transfer services to marginalised members of the population, Small and Medium Enterprises (SMEs) that do not have access to financial services from the formal and mainstream financial institutions	Financial services provided and target customers.

Source: Own Construct

3.3.1 The Evolution of Microfinance

The microfinance movement began with the work of Muhammed Yunus in Bangladesh in the 1970s (Yunus, 2007). The conviction that the poor were excluded from the benefits of the financial system was not restricted to only poor countries like Bangladesh but world-wide (Yunus, 2007:49), caused the birth of the concept of microfinance. Yunus argued that even in those countries that were considered as the richest, many poor people were considered not creditworthy thus they were not eligible to participate in the financial system. Yunus (2007) narrates the need for the poor to be included in the financial system before the inception of the Grameen Bank:

> *If the poor are to get a chance to lift themselves out of poverty, it is up to us to remove the institutional barriers we have created around them. We must remove absurd rules and laws we have made that treat the poor as nonentities. And we must come up with new ways to recognize a person by his own, not artificial measuring sticks imposed by a biased system.* (Yunus, 2007:49).

Yunus documented the account of poor people in Jobra who were finding it very hard find the tiniest amounts to support their efforts to make a living (Yunus, 2007:46). Their efforts as stated earlier included being day laborers, growing crops in their yards and crafts. Yunus gave an example of a family where the husband was a labourer and a wife was in the business of making bamboo stools. The wife relied on local money lender for the cash she needed to buy bamboo for her stools, but the money lender would give her money if she agreed to sell him all the stools at a price he would decide. Between this unfair arrangement and high interest rates on her loan, she left with only two pennies a day as her income. Once a borrower like these women borrowed any amount, nonmatter how small, on terms like this it was virtually impossible for her to work herself out of poverty, as this was not 'lending' but rather a way of recruiting labour (Yunus, 2007:46).

Grameen bank mission was not to offer poor aid or handouts but credit, that is loans that they must repay, with interest through their productive work (Yunus, 2007:56). The dynamics was to make Grameen sustainable as loan repayments supplied for funds for future loans at the same time individuals or new bank members in an ever-expanding cycle of economic growth (Yunus, 2007:56). The concept of Grameen bank thus was first, sustainable banking based, second pro-poor, that is it believed that the poor can also borrow money and repay back at a competitive interest rate (Bateman & Chang, 2012).

3.3.3.1 The Grameen Bank 16 Principles

The Grameen bank was the brainchild of Muhammad Yunus in Bangladesh in the 1970s.The Grameen model was replicated in countries like Bolivia, China, Chile, Ethiopia, Honduras, India, Malaysia, Mali, the Philippines, Sri Lanka, Tanzania, Thailand and the Vietnam (Yunus, 2007). In setting out the Good Faith Fund in Arkansas one of the early microfinance organisations in the US. The establishment of the Grameen bank was against the background that most villagers were unable to obtain credit at reasonable interest rates. The Grameen bank 16 decisions or principles were key in differentiating traditional banking and microfinance lending as microfinance also placed emphasis on the social development programme melded with microcredit delivery. The Grameen bank 16 principles as put forward by Holcombe (1995) include;

1. Discipline; Unity; Courage and Hardwork;
2. Prosperity in families;
3. Repairing of houses and constructing new houses;
4. Growing of plenty of vegetables for consumption and selling
5. Planting of seedlings during plantation period
6. Having small families
7. Educating children
8. Keeping children and the environment clean
9. Building pit latrines
10. Clean water
11. Not depending on children
12. No injustice on anyone
13. Collectively undertake bigger investments for higher incomes
14. Help each other;
15. Restore discipline where it is being breached; and
16. Introduce physical exercises (Holcombe, 1995).

The 16 principles of the Grameen bank do differentiate the role of commercial banking and microfinance in financial service provision. the Grameen bank 16 principle are key to enhancing client's personal sustainability of poor clients, in this case smallholder farmers. As Robinson (2001) put forward:

'It is sometimes forgotten, although generally not by borrowers that another word for credit is debt. When loans are provided to the very poor, the borrowers may not be able to use the loans effectively because they lack opportunities for profitable self-employment, thus being unable to repay loan principal and interest' (Robinson, 2001).

Whilst sustainable microfinance focuses on active poor clients, charging high interest rate, availing loans to smallholder farmers, without focusing on their personal sustainability can lead to smallholder farmers misappropriate the MFI loans that they are given by MFIs.

3.4 MICROFINANCE VS TRADITIONAL BANKING

Traditional banks which many economies were looking forward to being catalysts of economic development through financial deepening, financial widening and enhancing access to credit to profitable enterprises do not offer credit to the rural poor, smallholder farmers and small business (Elle, 2017). In addition to that, Moll (2005) suggest that, the stringent lending policies, collateral requirements, cumbersome procedures and perceptions that it is risk to lend the poor, small businesses and small farmers usually lead to financial exclusion of the rural poor. Traditional financial institutions regard rural poor people as too poor to save and borrowers of small sums of money which do not match their high bank administrative costs. Microfinance institutions thus have been established to serve as best alternative for enhancing access to finance to low-income earners and generally 'the poor' (Moll, 2005). Table 3.2 below summarises the feature that distinguish MFIs from banks.

Table 3.2 Features that distinguish Microfinance Institutions from Banks.

Operational issue	MFIs	Banks
Interest rate	-Interest rates are very high -Access to credit is more important than interest rates	-Interest rates are moderate -Stringent lending polices
Security	-Usually no collateral required -Social relationship considered as collateral	-Collateral required -Immovable assets preferred
Client base	-a very large client base -concerned with outreach and sustainability	-very small client base
Administrative costs	-high administrative costs	-low administrative costs (using proportion of total costs)
Client relationship	-intimate knowledge about client business -active monitoring and collaboration to ensure client success	-an arm's length relationship between banks and clients

Source: Own Construct from Literature Review

3.5 MICROFINANCE COMPETING THEORIES

The two competing microfinance theories, that is the sustainable microfinance lending theory and the subsidised microfinance lending theory are key in microfinance service provision to smallholder farmers. Whilst the current study focuses on the role of the sustainable microfinance on smallholder farmers' sustainability in Zimbabwe, the study also acknowledges the important role of the subsidised microfinance in the evolution of microfinance and setting a platform for the smooth operation of the sustainable MFIs. This section details the two microfinance competing theories and their relevance in smallholder farmers access to microfinance services.

3.5.1 Sustainable Lending Theory

Sustainable microfinance theory arose in the 1980s in response to doubts and research findings about state delivery of subsidised credit to poor farmers (Ledgerwood, 1999:2). The early pioneers of the sustainable lending approach are Badan Kredit Desa (BKD) village banks; Bank Dagang Bali (BDB) in Indonesia; the Self-Employed Women Association (SEWA), Women Cooperative Bank in India; the early ACCION affiliates in Latin America led to the development of the sustainable lending approach to microfinance (Robinson, 2001:52). During the 1970s, these institutions developed lending methodologies suitable for low-income clients in both rural and urban areas and demonstrated that microfinance provided at interest rates that enable full cost recovery could be delivered with high repayment (Robinson, 2001:52). Narrating the concept of the sustainable microfinance paradigm, Yunus (2007:69) asserts that,

> *'I would like to see all the poor people of the world being reached by microfinance programs delivered through social business, while profit maximising (sustainable lending) programs should focus their operations on people belonging to the lower middle class and above. There are those who content that microfinance programs are beneficial to the poor. They argue that higher interest rates, enables a microfinance institution (MFI) to become sustainable quickly. They also claim that high rates of profit make MFIs attractive to capital market investors from the richest countries allowing MFIs to expand services to the poor. They also argue that high interest rates enable bigger loans to create small enterprises, which in turn can employ large numbers of poor people.'* Yunus (2007:69).

The above excerpt shows that, the sustainable MFIs were/are keen to build sustainable microfinance institutions, they target economically active smallholder farmers, whom they refer as clients; and also charge the smallholder farmers high interest rates, for them to fully recover their costs of lending to the smallholder farmers. The sentiments of Yunus (2007) were in line with (Robinson, 2001; Morduch, 2000) who also pointed out that sustainable lending paradigm is characterised by high interest rates that enable MFIs to become sustainable and also enable the poor clients to start their own enterprises and employ extremely poor clients. It is however important to examine whether, sustainability is applying to both the MFIs and the smallholder farmers, the clients.

MFI sustainability also referred to as the new wave for microfinance (Robinson, 2001:51). The paradigm refers to large scale micro banking system that operates without subsidy. The sustainable lending paradigm is premised on development of new methods and concepts that enable financial institutions to provide microfinance services without ongoing subsidies (Robinson, 2001:52). The methodologies as put forward by Robinson (2001:52) include, both individual and group lending, new financial products suitable for poor borrowers and savers, interest rates spread that permit institutional profits, innovative operating methods and information systems, widely dispersed small service outlets and the financing of loan portfolios from mobilised savings. The microfinance service delivery methods in Zimbabwe are done in both in individual and group lending to smallholder farmers. Group lending usually occurs to farmers in tight value chains, whilst individual lending occurs to farmers who are operating in loose smallholder farming value chain, where they decide their own smallholder farming operations modes and markets (Miller, 2017).

The assumptions for the sustainable lending paradigm include the following: (1) The poor need a variety of financial services , not just loans, (2) the poor are clients , nor recipients or beneficiaries, (3) interest rate ceilings can damage poor people's access to financial services, high interest rates in turn attract savings which can be turned into loans for poor clients (4) the Government's role is to enable , not to provide financial services, (5) donor subsidies should complement , not to compete with the private sector, (6) MFI's sustainability (profitability) guarantee the continued existence of the MFI and (7) microfinance means building strong and sustainable financial systems for the poor.

In support of the above excerpts, Ledgerwood (1999:3) stipulates that the sustainable lending paradigm is characterised by the following beliefs , (1) that subsidised lending undermines development; (2) poor people can pay interests high enough to cover transaction costs and the consequences of the imperfect information markets in which lenders operate; (3) the goal

of sustainability (which is cost recovery and eventually profit) is the key, not only to institutional performance in lending but also to making the lending institution more focused and efficient; (4) because loan sizes to poor people are small. MFI's must achieve sufficient scale if they are to become sustainable; and (5) measurable enterprise growth, as well as microfinance impact on poverty cannot be demonstrated accurately, outreach and repayment rates can be proxies for impact (Ledgerwood, 1999:4).

Sustainable MFIs are on record for capitalizing on scales, exercising cost conscious, promoting innovation, reduce administrative and information asymmetry costs, lower adverse selection and moral hazard, hence, advance outreach, whilst suffering least losses (Bayai and Ikhide, 2016). The sustainable lending approach has led to most governments in developing countries to privatise subsidised, inefficient and loss-making parastatals and programs (Robinson, 2001). Bayai and Ikhide, (2016) postulated that shifting the old paradigm of concessionary funding to a new paradigm, sustainable lending concretises cost efficiency microfinance. Early research by Robinson (2001) claimed that the sustainable lending paradigm has created accountability, transparency, efficiency, economic interest rate setting, capital mobilization and appropriate management remuneration. In Zimbabwe, sustainable MFIs are MFIs are registered and supervised by the RBZ, which is tasked to ensure that licensed MFIs carry out moneylending operations in accordance with the laws of the country (RBZ, 2020). The operations of the MFIs are governed by the Moneylending and Rates of Interest Act [Chapter 14.14], and some sections of the Banking Act [Chapter 24:20] that are applicable to MFIs (RBZ, 2020). From time to time the RBZ issues regulatory directives which the MFIs are required to comply with.

Current research on microfinance sustainability, has focused mostly on the sustainability of MFIs (Bayai & Ikhide, 2016; Remer & Kattilakoski, 2021; Zheng & Zhang, 2021). There is, however, a research gap on how the sustainable MFIs has contributed to the sustainability of poor clients. The current research seeks to address that gap by exploring how sustainable MFIs are contributing to demand side sustainability, that is smallholder farmers' sustainability.

3.5.2 The Poverty Lending Theory

In the 1970s, government agencies were predominantly providing credit to the unbanked that had no access to credit facilities. The government assumed that the poor required cheap credit and the argument was this was a way of promoting agricultural production by smallholder farmers (Ledgerwood, 1999:2). In the beginning of the mid-1980s the subsidised model that was supported by many donors was heavily criticised. (Ledgerwood, 1999:2). Except for mandatory savings that are required as the condition for getting a loan, mobilisation of local savings is normally not significant part of the poverty lending approach to microfinance (Robinson, 2001:23). Examples of the poverty lending paradigm include Bangladesh's Grameen Bank and some of its replicators. In Zimbabwe, the poverty lending theory is still being applied by Non-Governmental Organisations (NGOs). NGOs offer small loans to smallholder farmers, for a period of time for specific farming activities, for example poultry production and help the farmers to look for lucrative markets. The poverty lending theory aligned NGOs charges minimal interests to the loans they are given to smallholder farmers, as they are more of aid (Jachi, Satande, Bhibhi & Makumbe, 2020)

The poverty lending paradigm is subsidy dependent, and it limits the number of borrowers that can be served (Robinson, 2001:46). MFI's that operate with subsidised loan portfolios cannot achieve wide outreach in both lending and savings operations because their interest rates are too low to cover the costs and risk of larger scale financial intermediation (Robinson, 2001:46). According to Robinson (2001:47) the poverty lending paradigm can take four forms: (1) institutions that provide microcredit but are not permitted to mobilise savings from the public (institutions that are regulated and publicly supervised); (2) institutions that do well in lending but poorly on savings (such as Bangladesh Grameen Bank); (3) institutions that do well in savings but poorly in lending (India's Regional Rural Banks and China's Rural Credit Cooperatives) and (4) institutions that fail in both (most MFIs that provide subsidised credit and permitted to raise public savings, particularly state owned banks).

Criticisms against the subsidised lending microfinance paradigm revolved around the issue of not being sustainable to serve the poor. Morduch (1999:1592) postulates that, (1) donor budgets are limited, restricting the size of operations thus reducing outreach; (2) subsidies have always ended up in wrong hands, rather than helping poor households, (3) subsidised programs are usually associated with high default rates. Table 3.3 summarises the features that differentiates the two competing microfinance lending paradigm:

Table 3.3: Features of the Poverty lending and the Sustainable lending paradigm

	Poverty Alleviation	**Sustainable lending**
Interest Rates	Interest rate ceilings	High interest rates
Repayment	High default rates	Low default rates
Role of Financial Markets	-Help the poor -Improve production -Implement state plans	-Financial intermediation -Social intermediation
Target Clients	Views borrowers as beneficiaries selected by targeting.	Views depositors and borrowers as clients who choose products.
Subsidies	Large subsidies to cover low interest rates and high loan defaults.	Few subsidies as they aim to create independent institutions.
Sources of Funds	Donors and the government	Voluntary deposits and interest repayments
Sustainability (Profitability)	Not important	Extremely important
Evaluations	Impact of credit on beneficiaries.	Microfinance institutions performance

Source: Own construct, For this research

The distinction between the poverty lending and the sustainable lending paradigm is that the former is characterised by interest rate ceilings (subsidised interest rates) whilst the latter charges interest rates enough to cover the cost of the loan as well as operational costs. In this regard poverty lending approach is associated with high default rate on loans. Poverty lending approach view borrowers as beneficiaries and targets extremely poor people; whilst sustainable lending paradigm target active poor clients. Poverty lending paradigm is more concerned with the impact of credit on beneficiaries (poverty alleviation) whilst the sustainable lending paradigm is concerned with sustainability of MFI's (Morduch, 1998). The two paradigms are key in determining the role of microfinance on smallholder farmers sustainability. The current study however focuses on the role of the sustainable microfinance on smallholder farmers' sustainability in rural Zimbabwe, thus view the smallholder farmers as economically active poor customers.

3.6 MICROFINANCE PRODUCTS AND SERVICES

Microfinance products and services that are offered to smallholder farmers are a key determinant of the farmers' sustainability. It is key for MFIs to offer both financial and non-financial services to smallholder farmers to enhance their sustainability. Formal financial institutions do not regard small businesses that are run by the poor as attractive investments because the loans that their businesses may require are often viewed as being too small and poor client's information is also difficult to obtain (Ledgerwood, 2013; Mago and Hofisi, 2016). Accessibility of poor clients is also difficult as they are too far away, from the civil community.

In support of that Ledgerwood (2013) highlighted that, the transaction cost per dollar is high to serve thus the poor and low-income clients usually face a barrier in gaining access to formal financial services. Poor clients need specific production and business management skills as well as better access to markets if they are to make profitable use of the services they receive from financial institutions. Financial services provision to the poor thus requires social intermediation and enterprise development (Ledgerwood, 1999:63). The provision of financial services to the poor takes a form of systems analysis rather than a simple institutional analysis. Within the systems framework there are four broad categories of services that may be provided to poor clients (Ledgerwood, 1999:63):

Financial intermediation: This entails the provision of financial products and services such as credit, savings, credit cards, payment systems and insurance. Financial intermediation need not to require on going subsidies to enhance MFI and client sustainability.

Social intermediation: This is a process of building the human and social capital required by sustainable financial intermediaries for the poor. Social intermediation may require subsidies for longer period than financial intermediation but eventually subsidies should be eliminated.

Enterprise development: These are non-financial services that are meant to assist and develop microentrepreneurs which include training, marketing, technology services and sub sector analysis. Enterprise development may or may not require subsidies depending on the willingness and ability of poor clients to pay for the services.

Social services: These are non-financial services that focus on improving the well-being of poor clients which include but are not limited to; education, nutrition, health and literacy training. Social services are likely to require on going subsidies which are at most times provided by the state or through donors that support Non-Governmental Organisations (NGOs).

As stipulated in Figure 3.2 below MFIs can be minimalist, that is those that offer financial intermediation services only or integrated, that is those that offer both financial intermediation and other services. The decision to offer non-financial services is the determinant of whether the MFI is minimalist or intergraded.

MINIMALIST APPROACH

One 'missing piece'-credit

INTERGRATED APPROACH

Financial and nonfinancial services

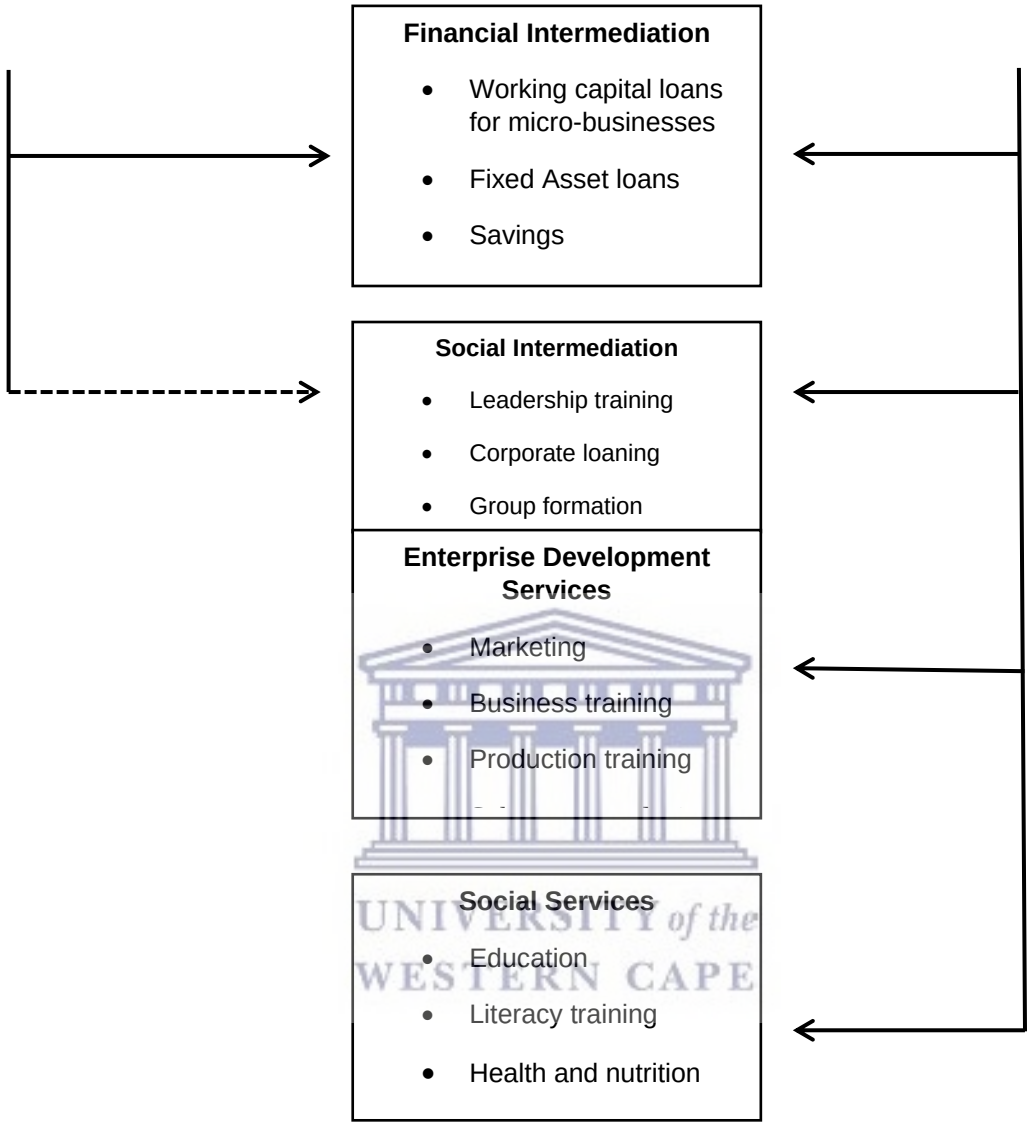

Figure 3.2: Minimalist and Integrated approaches to Microfinance.

Source: Ledgerwood, (1999:65)

3.6.1 Minimalist Approach

Minimalist approach offers financial intermediation services but occasionally offer limited social intermediation services. According to Ledgerwood (1999:66) minimalists base their approach on the premise that there is a single 'missing piece' for enterprise growth usually considered to be lack of affordable access to financial services which MFI's can offer. Whilst other 'missing pieces' exist MFIs recognises its comparative advantage in providing only financial intermediation services.

The minimalist approach offers cost advantages for the MFIs and allows them to maintain a clear focus since it develops it develops and provides only one financial service (Ledgerwood, 1999: 66). Maintenance of a clear focus of target clients by MFIs enhanced by the minimalist approach enables the MFI to stick to its objectives and focusing on conflicting objectives. Minimalist approach, however, may compromise sustainability of poor clients as it emphasises mainly on 'sustainable credit services' provision and leave out the development of sustainable enterprise that can make the poor clients to effectively repay the loans using their enterprise profits.

3.6.2 Integrated Approach

The integrated approach to microfinance service provision takes a holistic view of the client. It provides a combination or a range of financial and social intermediation services, enterprise development and social services (Ledgerwood, 2013). Ledgerwood (1999:66) stipulates that the MFIs may not provide all the services but may take advantage of its proximity to clients. Also based on its objectives to provide those services that have a comparative advantage in providing.

An MFI chooses a minimalist or a more integrated approach depending on its objective and the demand and supply in the area it is operating. According to Ledgerwood (1999:66), MFIs that operate in an integrated approach must be conversant with the following: (1) nonfinancial services are rarely sustainable (2) provision of both financial and non-financial services may lead to the MFI pursue conflicting objectives and (3) it is often difficult for clients to differentiate social services that are usually 'free' from financial services that are 'paid' for when they are receiving both services from the same organisation.

The integrated approach has been coined as a more appropriate approach of microfinance service provision to poor clients. Mago and Hofisi, (2016: 64), affirms that the use of integrated

approach for the provision of microfinance to smallholder farmers benefit them as it allows for the provision of both financial and non-financial services. Mago and Hofisi (2016) further stipulate a that strategic partner could be used to ensure that the integrated approach is pursued so as to improve the performance of smallholder farmers through microfinance. Whilst scholars like Mago and Hofisi (2016) have recommended the integrated microfinance products and services provision, the recent reports from the RBZ shows that most of the MFIs were credit only MFIs whilst a few were offering both credit and accepting deposits. RBZ (2021) asserts that by September 30, 2021, out of 176 total MFIs in Zimbabwe only eight were allowed to provide both credit and take deposits. This constitute a research gap in the current study on the products and services that are being offered to smallholder farmers by MFIs. The research thus also sought to assess the uses and applications of microfinance loans by smallholder farmers in Zimbabwe.

The question of sustainability of both the MFI and smallholder farmers however remains. This is because if a sustainable MFI is to partner say with a government agency which offer say cattle breeding and fattening training for free, and then the clients access loans at a sustainable interest rate from the MFIs, the clients might fail to differentiate between the two and view both services as free services thus compromising sustainability of both the MFI and the client.

3.7 MICROFINANCE DELIVERY

This section details the various microfinance services delivery methods that can be used by sustainable MFIs. The way in which microfinance services are delivered to smallholder farmers are key in determining the farmers' sustainability. The joint group lending paradigm for example, enable those farmers that have no access to physical collateral to access microfinance services, by using social capital, group collateral to borrow agricultural loans from microfinance services. The microfinance delivery modes to smallholder farmers are detailed below:

3.7.1 Joint Liability Group Paradigm

Group lending can also be referred to as joint liability groups (Remer & Kattilakoski, 2021:2) Group lending is a common type of microfinance loan where the group represents a borrower (Zuru, Hashim, & Arshad, 2016:459). The loan is disbursed to a group and members of the group, usually four to ten individuals, are responsible for the repayment of the loan (Chetty, 2017). Members of such groups mostly include farmers, labourers, tenants and other rural workers. In Zimbabwe, group lending model have been used mostly to avail loans to smallholder famers that have no adequate collateral, thus they utilise social capital to access loans from the MFIs (For a loan provider, this often minimizes risk of lending, as the basic idea is that individual risks are overcome by the collective responsibility and security granted by a group (Munyoro & Chambari, 2019). Grameen Bank, 2018). Group lending focuses on social capital, which promotes social interaction, information sharing and trust. These factors are all foundations of group lending methodology (Kamukama & Natamba, 2013:362).

The groups, in a group lending set up are organised, owned, controlled, operated by members based on solidarity, reciprocity, common interest and resource pooling (Kumar, 2012:1). People who are homogeneous with respect to social background, heritage, caste or traditional occupation come together for a common cause to raise and manage their collective savings for the benefit of all peers in the group. Group based credit systems addresses the problems of screening, incentives and enforcement by incorporating a joint liability principle and peer monitoring. Group based lending contract effectively makes a borrower's neighbours co-obligator to loans in the process of mitigating problems created by informational asymmetries such as adverse selection, moral hazard and enforcement (Kumar, 2012:2). In support of this, Aninze, El-Gohary and Hussain, (2018:59) group lending addresses the following:

Adverse selection: chances of selecting risk borrowers.

Moral hazards: difficulties in monitoring borrowers' behaviour after credit has been advanced.

Costly audits: This entails the cost of assessing actual business projects and assets that could be seized to compensate for the debit if there is a refusal or failure to repay the loan.

Enforcement: Process of enforcing recovery if a particular borrower fails to repay.

MFIs in Zimbabwe reduces the chances of selecting risk smallholder farmers borrowers by availing group lending services to the farmers. Group lending also reduces moral hazards and also increases the process of recovering loans, in case the smallholder farmers fails to repay the loans borrowed by smallholder farmers, thereby reducing costly audits for MFIs.

3.7.2 Individual Lending Paradigm

The provision of credit to individuals who are not members of a group that is jointly responsible for loan repayment is called individual lending. Ledgerwood, (1999:83) stipulates that the individual microfinance model is a direct credit lending model where micro-loans are granted to the borrower directly in order to address individual financial needs and that it is their sole responsibility to back pay the loan interest and principal without any solidarity support from a group. Individual lending requires frequent and close contact with individual clients to provide microfinance products tailored to the specific needs of the business enterprise.

In support of that, Srinivas, (2015:4) added that individual lending model is a straight forward credit lending model where micro-loans are given directly to the borrower and in many cases individual lending individual lending model is part of a larger credit plus programme, where other socio-economic services such as skills development, education, and other outreach services are provided (Srivanas, 2015:4). Individual lending microfinance model is more suitable for urban based-production oriented business and for clients who have some form of collateral or a willing co-signer or guarantor (Ledgerwood, 1999:83). This is because micro-businesses usually do not have many assets or adequate reporting systems. Individual micro financing model can however be successful in rural areas through SACCOs and credit Unions (Ledgerwood, 1999:68).

On individual lending, detailed financial analysis and projections are often included with the loan applications. The amount and the terms are negotiated with the client and the credit officer's supervisor and other credit officers. Documentation is required, including loan contract, details regarding the clients references if applicable, a form signed by the co-signer and his personal information and legal deeds to assets being pledged and credit history. Periodic payments are made at the branch or through pre-approved payments (Ledgerwood, 2013). Appropriate clients for individual microfinancing model are clients from urban enterprises or small farmers, including men and women and maybe small businesses, microenterprises and production enterprises. Individual lending may be less costly and less labour intensive than group lending (Ledgerwood, 1999:84). In Zimbabwe, smallholder farmers

can receive microfinance loans through individual lending if they possess sufficient physical capital to pledge to the MFIs in order to access the loans (Srinivas, 2015).

3.7.3 The Informal Sector

Informal money lenders, the major players in the informal sector providers of microfinance lend typically to a small number of borrowers from which they can collect their repayments easily. The informal sector emerges because of the absence of the formal microfinance sector or the inability of the microfinance sector to serve products and services that are tailor made for poor clients (Robinson, 2001; Rutherford, 1999). The people to who money lenders lend money are poor people who they already have some interlinked transactions in other markets, for example employer, landlord or commodity buyer among others. Robinson (2001:132), highlights that linkages together with information flow from local networks, religious affiliations and political alliances and others make it possible for informal money lenders to charge high interest rates.

The informal lenders' strategy is not to increase market share but rather maintain their high interest rate charges. The informal money lenders operate in a monopolistic competition market where their products (micro-services) are differentiated and the lenders themselves are imperfect substitute. According to Robinson (2001:132), high interest rates charged by informal commercial lenders of particular significance for social and economic development because these rates tend to impede or preclude the growth of borrower's enterprises, because the volume of informal commercial credit is very large in developing countries and also because institutional microfinance is not widely available. If sustainable financial intermediaries are available to serve the microfinance market, low-income borrowers that are credit worthy can access micro-loans at interest rates and total costs that are lower than those that are charged by money lenders.

Informal money lenders thrive on providing a lump sum before a series of savings, to people who suffer sudden emergencies, or have an opportunity to acquire an asset but do not have sufficient savings to finance the expenditure (Rutherford, 1999:7). The money lenders also target the extremely poor people who might not be able to pay for emergencies like health care, education, food among others. According to Rutherford (1999:13), usually money lenders swap advance payments against future savings of poor clients, often referred to as the Savings down concept. Figure 3.3 illustrate the concept as the black bar denotes the borrowers receiving a lump sum from the micro-lender in exchange for a series of smaller payments in future (small vertical lines cutting on the diagonal line sloping down).

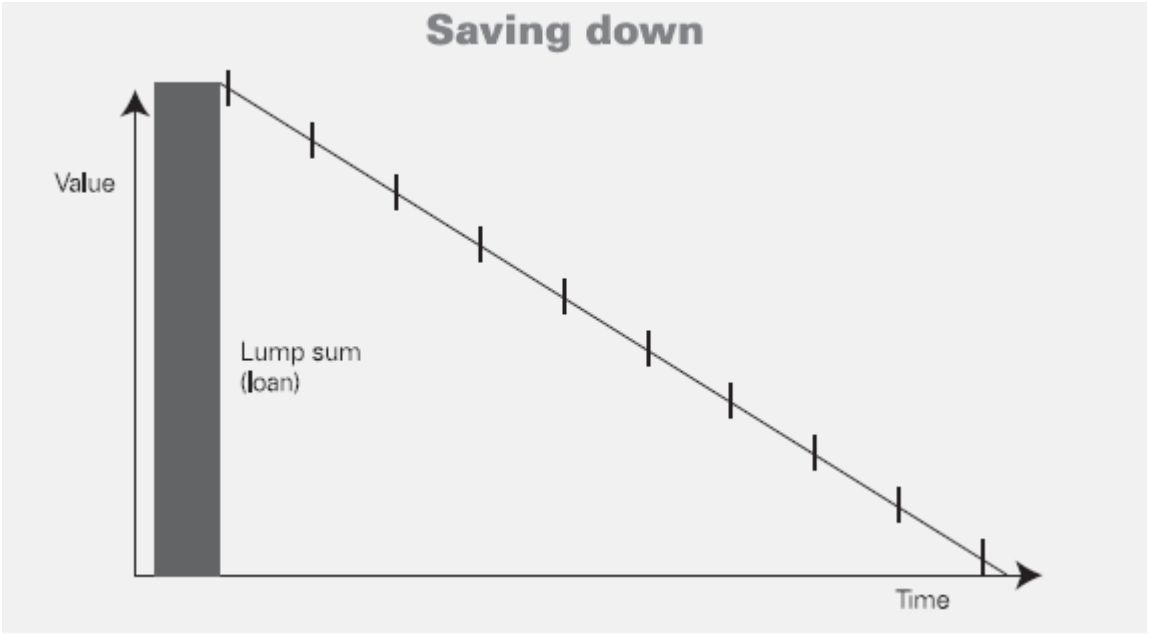

Figure 3.3: Savings Down by Informal money lenders.
Source: Robinson (2001:75).

The key tenets of informal money lenders are that they are more expansive as compared to other borrowing forms and they are informal (Rutherford, 1999: xiv). In addition, Robinson (2001:173) said that the micro-loan products offered by informal money lenders are in most cases short-term working capital loans, the credit procedures are quick and easy and are carried out in locations that are convenient for borrowers. Most smallholder farmers in Zimbabwe, access loans, mainly for adhoc life enhancement needs from informal lenders. This is because informal lenders, despite having high interests, have little formalities for the farmers to access loans. The incorporation of informal sector lending modalities in sustainable MFIs lending to smallholder farmers can goa long way to reduce the barriers to access to finance by smallholder farmers.

Having discussed the various microfinance delivery modes that can be used by sustainable MFIs to deliver their products to smallholder farmers. It must be noted that, from the discussion above, the group lending model and the individual lending model are mostly used by the MFIs to deliver their services to smallholder farmers. A research gap which emanated from the above discussion is whether there is need for sustainable MFIs to incorporate other lending models for them to improve smallholder farmers' sustainability. In this regard, the research gaps the current study seeks to address are the challenges faced by smallholder farmers when accessing microfinance services from MFIs.

3.8 SMALLHOLDER FARMERS MICROFINANCE ACCESS CHALLENGES

The first investigative question of the current study is to assess the challenges facing smallholder farmers when accessing microfinance. It must be noted that the sampled participants utilised in the current study on the role of microfinance on smallholder farmers' sustainability were the farmers who were microfinance clients. This section details the microfinance access challenges of smallholder farmers that have been detailed in literature. Girabi and Mwakaje (2013) conducted a research study on the impact of microfinance on agricultural productivity by smallholder farmers in Tanzania. They highlighted that the major factors that hindered smallholder farmers access to formal credit were inadequate credit supply, defaulting, high interest rates and lack of information.

Cumbersome application procedures were mentioned by (Mersha & Ayenew, 2018; Chandio, Jiang, Wei, Rehman & Liu, 2017). Mersha and Ayenew, (2018) argued that potential borrowers in Ethiopia, needed to form group, hand in application forms, farming plans, and guarantee evidence and these procedures may be too difficult for less educated rural households. In support of that Chandio et al. (2017) asserted that, the cumbersome procedure of getting agricultural passbook from the department of revenue in Pakistan, due to which most of the smallholder farmers lose interest in applying for credit from formal sources, needs to be simplified.

Disbursement lag time was also mentioned as one of the challenges facing smallholder farmers in accessing microfinance (Dziwornu & Anagba, 2018; Enimu, Eyo & Ajah, 2017). Dziwornu and Anagba (2018) argued that timely granting of micro-loans to women entrepreneurs in Ghana to improve participation of women in microfinance programs. In support of that, Enimu et al. (2017) postulates that shorter disbursement lag time of microfinance loans encourages the timely utilisation of loans, and this invariably led to high output and efficiency.

Interest rates were mentioned by Jumpah, Osei-Asare and Tetteh, (2019) as hindering smallholder farmers access to finance. Jumpah et al (2019) posits that reduction in the interest rate and expansion of microfinance to very remote areas rather than locations in rural areas are crucial in terms of improving participation. The authors further assert that, high interest on loans, operational costs any other charges hinder participation in microcredit programmes and MFIs in their study area were supposed to consider should consider reviewing their interest rates and other charges downward to promote participation. In support of that Awuah and Addaney, (2016) articulated that challenges that the high interest rate increases the cost of the

debt, was reducing the uptake of microfinance products. Proponents of microfinance, however, have always argued that MFI high interest rate makes it possible to grow the microfinance industry by expanding outreach in breadth and depth (Diagne & Zeller, 2001; Jumpah et al. 2019; Morduch, 2000; Robinson, 2001).

Literature has detailed corruption relating to some customer service officers requesting bribe from the borrower smallholder farmers under the pretext of shortening the time to get the loan (Mersha & Ayenew, 2018). In addition, on corruption, Awuah and Addaney (2016) asserted that MFIs were not offering enough microfinance services to Small and Medium Scale Enterprises (SMEs) in Ghana. Corruption and insufficient financial advice are thus some of the factors hindering smallholder farmers from accessing microfinance.

People with high financial literacy usually find it easier to understand the terms and conditions of MFI loans as well as savings services (Nkundabanyanga, Kasozi, Nalukenge & Tauringana, 2014). Nkundabanyanga, et al. (2014) articulated that improving financial literacy of smallholder farmers must be matched with favourable interest rates if access to microfinance services is to be enhanced. Awuah and Addaney (2016) stated that the MFI clients lack knowledge of interest rates on loans makes it difficult for clients to plan with the loan.

Jumpah et al (2019) asserted that MFIs should promote group formation in order to improve participation in microfinance programmes and also promote good practices and loan repayment. Group formation should therefore be encouraged in micro-lending. Such groups can also serve as a platform through which inputs can be supplied and technical information on best production practices and training offered to farmers (Jumpah et al. 2019). Assogba, Kokoye, Yegbemey, Djenontin, Tassou, Pardoe and Yabi (2017) also revealed that smallholder farmers social capital homogeneity, network connection, level of trust, collective action and the respect for contract had positive significant effect on access to credit.

N'Banan, Xueping, Trazié, Youan, Ahiakpa, and Olounlade, (2020) stipulated that women farmer were more likely to have access to microfinance credits than their male counterparts in Côte d'Ivoire. This may be ascribed to the fact that, in the study area, women are more involved in food crop production such as vegetable, with a quick rate of return and ready markets for their produce. In support of that, Sarwosri, Römer and Musshoff, (2016), found that female farmers have a higher rate of loan application approval compared to male farmers.

Mbuba et al. (2018) emphasized that women smallholders have better access to microfinance credits than men smallholders in Kenya. Jumpah et al. (2019) also stipulated that there is a widely held view that the rate of default among female borrowers is relatively lower than their male counterparts and as such lenders will be willing to advance credit to them. (Kaboski & Townsend, 2012) also asserted that women were better managers of credit compared to their male counterparts who may use loan on unproductive activities such as smoking and drinking.

Collateral is required for all borrowers by institutional sources of credit and default is that; it can be used to offset the loan if the borrower fails to pay the principal amount of loan and interest satisfactorily under the terms of the loan agreement (Chandio, Jiang, Wei, Rehman & Liu, 2017). Earlier research by Assogba, Kokoye, Yegbemey, Djenontin, Tassou, Pardoe and Yabi, (2017) also reiterated that availability of collateral decreases the likelihood of credit access by 12.4% while credit with high interest rates decreases it by 11.7%. The availability of collateral is a very important fact1r that affects the formal credit of the farmers. It has a positive and significant impact on access to formal credit (Chandio et al. 2017).

3.9 MICROFINANCE-SMALLHOLDER FARMING MODELS

3.9.1 MyAgro microfinance scheme-Kenya

MyAgro helps farmers save little by little in a bank less savings scheme based on scratch cards purchasable at local stores. The farmers buy the scratch cards and text the code into their phones, after which their MyAgro accounts are automatically loaded with credit equal to the amount of money they spent. As soon as they have saved enough in their accounts, MyAgro delivers seeds, fertiliser and one-on-one training on the best farming methods before the planting season begins, she adds. Farmers who have registered with MyAgro also have the additional advantage of receiving news on agricultural trends and the best market seasons through their phones (Odhiambo, 2019).

3.9.2 PRIDE microfinance program-Uganda

PRIDE stands for Promotion of Rural Initiatives and Development Enterprise is a financial intermediary based in Kampala, Uganda. Microcredit and mobile banking, this enterprise helps smallholder farmers buy seeds, pesticides, fertilisers and other farm consumables through community banking, group loans or individual loans. It also promotes sustainable farming by ensuring that smallholder farmers receive technical support to manage their crops and livestock farming. PRIDE collaborates with the Uganda Coffee Development Authority, which

is known as Ugacof, to support group lending activities in the coffee sector. This includes support for agricultural extension services, which aim to educate farmers in efficient and green farming practices (Siedek & Piri, 2020).

3.9.3 One Acre Fund Program-Kenya

One Acre Fund microfinance program was a Kenya-based project that aims to help smallholder farmers in Sub-Saharan Africa capitalise on the little they have, offering loans in the form of farm inputs such as seeds and fertiliser, and training on modern agricultural techniques. The farmers interviewed mentioned that the microfinance program helped them with advice on effective farming methods and seedlings which they repay gradually. In addition to agricultural inputs such as seeds and fertilisers credit scheme, the farmers also received mobile phones, solar lamps and energy-saving stoves. Lending by One Acre fund program lend seed and fertiliser instead of cash. They also provide assets to farmers ensures that the loan is utilised for the intended purpose and overcomes the challenge of limited access to seed and fertiliser close to the homes of our clients. They also offer a completely flexible repayment schedule to accommodate the irregular cash flow of most smallholder farmers. These loans were quite affordable to poor farmers as they give the farmers ample time to pay it back once the farmers managed to sort their lives out through their harvests (Odhiambo, 2019).

3.9.4 Musoni Digital Microfinance-Kenya

Musoni is a digital-based microfinance institution in Kenya that has gained smallholder farmers' loyalty through its high-touch customer service, easy processes, and transparency. With support from Feed the Future Partnering for Innovation, Musoni partnered with Grameen Foundation to develop a software platform that has made its loan processes more efficient and helped it disburse 16 826 agricultural loans valued at nearly $6.5 million. Musoni is able to reach rural, remote customers thanks to its new cash flow software and its practice of placing loan agents in every village where it works.

Village loan agents use the cash flow analysis software, developed by the Grameen Foundation with support from Partnering for Innovation to wirelessly submit farmers' loan applications and track customer information, including repayment information and changes in income, making loan processing more efficient. Farmers do not have to travel to the bank or complete a complicated loan application with considerable documentation requirements (Fintrac, 2021).

3.9.5 Feed the Future Zimbabwe Livestock Development Program-Zimbabwe

Under the Feed the Future Zimbabwe Livestock Development Program 204 farmers have formed 26 feedlot groups in Manicaland, Midlands, Matabeleland South and North Province. The farmers received more than USD$50 000 worth of inputs loans from Untu Financial services, Quest Financial services and Montana meats. The farmers were linked to national Foods for stock feed and Veterinary Distributors for drug procurement. To complete the value chain and mitigate price risks the farmer groups were linked to abattoirs such as Montana Carswell meats, Sabi meats and Head and Hooves for offtake of finished animals. By facilitating relationship across the entire value chain, the microfinance program ensure that the farmers can increase incomes and improve food security. The 26 groups generated $160 000 in total sales from 272 pen-fattened animals and registered 100% loan repayment. Farmers ended up to $570 per animal, a 59% increase in gross income. Table 3.4 below show the uses and applications of microfinance services as drawn from the models detailed below:

Table 3.4: Uses and applications of Microfinance services by smallholder farmers

Microfinance Program	Location	Recipients	Uses and applications
MyAgro	Kenya	Smallholder farmers	Mobile banking Savings Agricultural Training Agricultural inputs
PRIDE	Uganda	Smallholder farmers	Mobile banking Microcredit Seeds, pesticides, fertilizers and other farm consumables Markets
One Acre Fund	Kenya	Smallholder farmers	Agricultural inputs Agricultural training
Musoni	Kenya	Smallholder farmers	Digital banking Microloans Financial advisory
Feed the Future Zimbabwe Livestock Development Program	Zimbabwe	Smallholder farmers	Agricultural inputs Markets

Source: Own Construct, From Literature Review

3.10 MICROFINANCE AND SMALLHOLDER FARMERS SUSTAINABILITY

3.10.1 Microfinance and Farm Sustainability

The role of microfinance on smallholder farmers sustainability, that is both smallholder farming activities sustainability and personal sustainability. The current study argue that farm sustainability is key to smallholder farmers overall sustainability. There is a plethora of studies that focused on microfinance and smallholder farmers with regards to how microfinance impacted on smallholder farming activities.

Earlier study by Mago and Hofisi, (2016), examined the role of microfinance on smallholder farming development in Zimbabwe. Their research results revealed that microfinance had a positive effect on accumulation of agricultural assets, income from agriculture, agricultural education, agricultural productivity, agri-business, consumption and health. The research results revealed that basic financial services are essential in managing smallholder farming activities. In support of that, Girabi and Mwakaje (2013) earlier found out that microfinance credit beneficiaries realized high agricultural productivity compared to the non-credit beneficiaries' respondents in Tanzania. This was because microfinance credit beneficiaries were relatively better in accessing markets for agricultural commodities, use of inputs and adoption of improved farming technologies.

A recent study by Lawin et al. (2018) on impact of microfinance on rural households and farms showed that farmers access to microfinance had a positive impact on investment in agricultural activities, encourages a better-input use and favours adoption of new technologies. Lawin et al. (2018) further argued that better investment, input use, access to new technologies that was initiated by access to microfinance led to positive impact on productivity and technical efficiency, thereby improving profitability of farm activities. The authors also suggested that access to microfinance had a positive impact on non-farm activities. Figure 3.4 below hypothesised the impact of microfinance on farm and households:

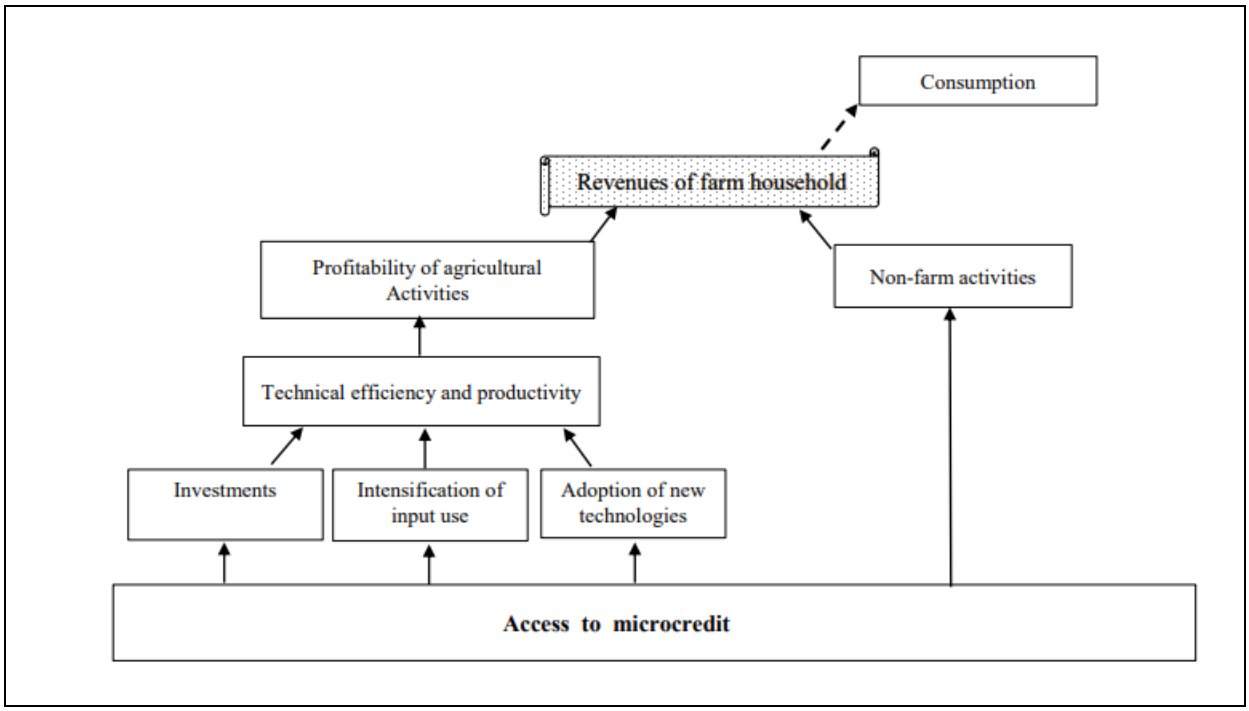

Figure 3.4: Impacts of microfinance on farms and rural households.
Source: Lawin et al. (2018)

Most studies on the impact of microfinance on farm activities have pointed to the prowess of microfinance to adoption of new agricultural technology. This was evidenced by the study by Lawin et al. (2018); Abate et al. (2016); Chowdhury, Smits and Sun, (2020); Islam, Sumelus, and Backman, (2012) as well as Simtowe, Asfaw and Abate, (2016). Abate et al. (2016), in their study on the effects of microfinance on adoption of agricultural technology in Ethiopia, found out that access to microfinance had a significant positive impact of both adoption and the extent of technology use. In support of that, Islam et al. (2012) in their study on impact of microfinance on adoption of new rice variety suggested that microfinance had a positive and significant impact on the adoption of a new rice variety with high yield in Bangladesh.

In addition, households that had access to formal microfinance have an adoption rate of inputs that is relatively higher than households who do not have access to microfinance. Simtowe et al. (2016) conducted a study on 400 households in Malawi to assess the patterns of diffusion and adoption of improved pigeon pea varieties and their determinants. Their results showed that improving farmer's access to microfinance enable them to purchase improved seed. Chowdhury et al. (2020) conducted a research study on whether access to microfinance on technology adoption. Their experimental study revealed contrary evidence that a mere offering of microfinance to smallholder farmers did not lead to adoption of new agricultural technologies.

There are also studies which measured farm sustainability, as conceptualised in the current study using technical efficiency (Awotide, Kehinde, and Akorede, 2015; Zhao & Barry, 2014) and production (Kajenthini & Thayaparan, 2017). Awotide et al. (2015) conducted a research study on access to microfinance and technical efficiency among smallholder cocoa farmers. Their study results revealed that improvement in provision of microfinance, with the intention of taking smallholders from off-farm activities along with extension services are likely to lead to improved smallholder technical efficiency. In contrary, earlier study by Zhao and Barry, (2014) on effects of access to formal credit on farm technical efficiency evidenced that demand-side credit constraints impose significant negative impacts on household technical efficiency.

Kajenthini and Thayaparan (2017) assessed the impact of microfinance loans on paddy production among smallholder farmers. Their study results revealed that results suggest that loan beneficiaries who were received loans relatively better in accessing markets for paddy cultivation, and usage of inputs and also adoption of improved farming technologies in Sri Lanka. The implications of the above studies, to the current study is that the role of microfinance on sustainability of smallholder farming activities or farm sustainability that can emerge from the qualitative data collected can also point to variable like technology adoption, technical efficiency, farm asset acquisition, farm income and profits among others. This enable the researcher to draw meaningful conclusions by comparing the results of the current study and existing literature.

3.10.2 Microfinance and Personal Sustainability

The discourses surrounding microfinance and personal sustainability has been researched differently, in different countries and by different scholars. Most studies that have been done on microfinance and personal sustainability have been conducted using different variables, to measure, what in this current study is being termed personal sustainability. Makola and Sakwa, (2017) conducted a study on impact of access to microfinance on household wellbeing. Results of their study showed that access to microfinance services had a positive impact on the clients' accumulation of household assets and income status. In the same vein, Augsburb, De Haas, Harmgart and Meighir, (2015) examined the impact of microcredit on rural households. Results showed that microfinance access in rural households led to increase in household savings and consumption, increased profits from their microfinance funded cash generating activities.

Crepon, Devoto, Duflo and Pariente, (2015) carried out a randomized evaluation of a microcredit program introduced in rural areas of Morocco. In their study, research results revealed that access to microfinance led to a significant rise in accumulation of assets used in self-employment activities that included animal husbandry and agriculture as well as increase in profits. The overall increase in income was however offset by a reduction in income from casual labour, thus there was no gain in measured income and consumption. This means that increase in rural people venturing in income generating projects can increase income but decrease income from casual labour. There are however contradictory results with regard to effect of microfinance access on household income and profits. On the same note, Angelucci, Karlan and Zinman, (2015), conducted a randomised experiment in Mexico, and their study revealed that microfinance had no effect on household income and farm profits.

Tarozi, Desai and Johnson, (2015) used randomised control trial on impact of microfinance access on the following socio-economic variables: animal husbandry, income from agriculture, non-farm self-employment, labour supply, women empowerment and children education. The results of their study showed a positive impact of microfinance access on animal husbandry, non-farm self-employment, labour supply, children education, children education and women empowerment. Earlier research by Desai, Johnson and Tarozzi, (2015) showed that microfinance access was associated with significant improvement in school attendance of between 10 to 16-year-old boys.

Bhuiya, Khanam, Rahman and Hong, (2016) also used household income and consumption to measure the impact of microfinance on household sustainability in Bangladesh. Results of their study showed that, despite the fact that economic well-being as measured by household income and consumption improved significantly after joining microfinance programs, the microfinance members remained poorer than non-microfinance members. In the same vein, Khan (2014) assessed the impact of microfinance on household income and consumption. The same results as the prior study were found, Khan (2014) result showed that microfinance had positive impact on household income and consumption level. Microfinance increased client's access to education and health.

Contribution of microfinance to household welfare showed an increase in income and consumption level and ultimately affects the spending on health and education. In support of that earlier study, by Silva, (2012) evidenced large positive impact of participating in microfinance programmes on household income and savings. In their study, microfinance programs improved household status in terms of wealth. On a negative note, the microfinance

program loans, and savings schemes were not sufficient to make members start their income generating activities and projects.

Choudhury et al. (2017) examined the effectiveness of microfinance on household income, expenditure and savings in Bangladesh. In their study, microfinance had a significant positive impact on household income, expenditures and savings. Their research results also revealed that the level of education play an important and statistically significant role in increasing the household income, expenditure and savings. In addition, microfinance programme had a positive impact on reducing poverty and enhancing the competitiveness of deprived rural and urban households in improving their standard of living in Bangladesh.

The discussion above showed that studies related to microfinance and personal sustainability used variables like household income, savings, consumption (Bhuiya et al. 2016; Choudhury et al. 2017; Silva, 2012); household assets and income status (Augsburg et al. 2015; Crepon et al. 2015; Makola & Sakwa, 2017). The current study focuses on the role of microfinance on sustainability of smallholder farmers in rural Zimbabwe, focusing on the farmers farm as well as personal sustainability. Although the current study is conducted largely in a qualitative context, the themes that are forecasted to emerge in the study with regards to the contribution of microfinance to farmers sustainability can match what was also detailed in literature. Personal sustainability is key to overall sustainability of the farmers.

There is an acknowledgement among most scholars that microfinance has led to substantial positive effects with regards to farm production (Abate et al. 2016; Awotide et al. 2015; Lawin et al. 2018; Kajenthini, 2017; Mago & Hofisi, 2016) and clients' quality of life (Angelucci et al. 2015; Augsburb et al. 2015; Crepon et al. 2015; Makola & Sakwa, 2017; Tarozzi et al. 2015). There are however studies that have showed negative effects of microfinance on farm productivity. To, Silva (2012) microfinance program loans and savings schemes were not sufficient to make members start their income generating activities and projects. In support of that, Zhao and Barry (2014) asserts that, due to microfinance, the demand-side credit constraints impose significant negative impacts on household technical efficiency. In addition, Bhuiya, Rahman and Nghiem (2016) study evidenced that despite the fact that economic well-being as measured by household income and consumption improved significantly after joining microfinance programs, the microfinance members remained poorer than non-microfinance members. Research by Chowdhury et al. (2020) evidenced that a mere offering of microfinance to smallholder farmers did not lead to adoption of new agricultural technologies. This mixed evidence with regards to the role of microfinance on smallholder farmers sustainability might be due to the following:

1. Lack of a clear definition of smallholder farmers sustainability supported by empirical evidence
2. Lack of 'Smallholder farming sustainability framework' tailor made for smallholder farmers in developing countries.

3.11 CONCEPTUAL FRAMEWORK

In order to resolve the gaps identified in literature as well as the research problem and research questions, the following framework on smallholder farming sustainability was proposed. The framework clearly illustrates the problem which this research was going to cover. The discussion of concepts in this chapter led to the formulation of the conceptual framework of the current study as detailed below:

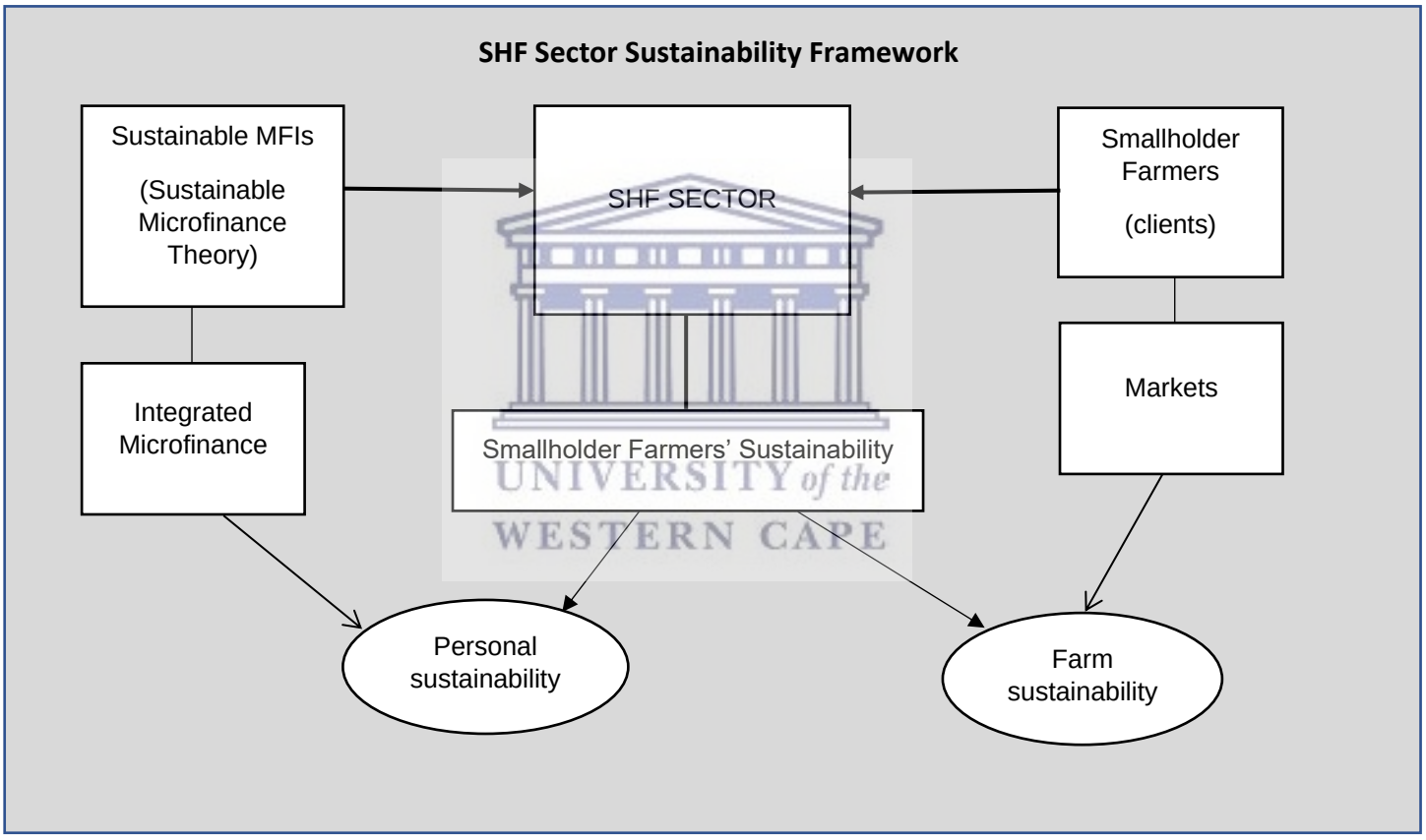

Figure 3.5: Conceptual Framework.
Source: Developed for this research

Against a background of numerous smallholder farmers, finance access challenges (Awuah and Addaney, 2016; Chandio et al. 2017; Dziwornu and Anagba, 2018; Enimu et al. 2017; Jumpah et al. 2019; Mbuba et al. 2018; Mersha and Ayenew, 2018), the smallholder cattle farming sector in Zimbabwe comprise of two main players, the Sustainable MFIs (financiers)

and the Smallholder farmers, who in accordance to the Sustainable lending Theory explained earlier in this chapter are referred to as clients.

The ability of farmers to access markets, through microfinance help, and ability for MFIs to provide holistic products and services to smallholder farmers through integrated microfinancing, will result into both smallholder farmers' and or farming farm and personal sustainability. Drawing from this line of thinking, the following research questions assisted in identifying and investigating the research question: *How does microfinance support smallholder farmer sustainability in rural Zimbabwe?* To answer the above research questions, the following Investigative Questions were formulated:

3.11.1 Investigative Questions

IQ1*: What challenges are being faced by smallholder farmers when accessing MFI services?*

IQ2*: What are the uses and applications of microfinance loans by smallholder farmers?*

IQ3: *How is microfinance contributing to the sustainability of both their farming activities and individually?*

3.12 CONCLUSION

Chapter 3 discussed the conceptual and related theory used to comprehend the Zimbabwean Microfinance landscape. Further discussions relating to microfinance delivery and the application of both the sustainable microfinance lending paradigm and the subsidised microfinance lending approach were discussed. Chapter 4 presents the methodology used to gather data for the current study.

CHAPTER 4
RESEARCH METHODOLOGY

4.1 CHAPTER OVERVIEW

This chapter details the methodology used in the research. The chapter begins by explaining the research paradigm, research design and research methodology adopted in the study. It further goes on to describe, the methods that were applied including sampling techniques, data collection and analysis. The chapter concludes by describing the trustworthiness, credibility, dependability of the data as well as the ethical considerations of the study.

4.2 INTRODUCTION

The review of literature, in the previous chapter, culminated into the conceptual framework, research questions and propositions of the thesis. To test the conceptual framework, a case study of smallholder farmers in Masvingo, Zimbabwe was designed. Based on the critical realism paradigm and utilising the qualitative research approach, data was collected from eight smallholder farmers and two MFIs.

4.3 RESEARCH PARADIGM

A research paradigm is a set of beliefs that represent a worldview. A research paradigm defines the nature of the world and the researchers' place in that world, ultimately determines the criteria used to select and define research inquiry. Kuhn, (1996:34) defines a research paradigm as a set of assumptions and theories that are shared by researchers for the purpose of conducting research. A research paradigm comprises of three assumptions namely ontology, epistemology, and methodology (Guba & Lincoln, 2005). According to Healy and Perry, (2000:119), ontology refers to the nature of reality; epistemology refers to what constitutes acceptable knowledge. Methodology refers to the techniques that are employed by the researcher to investigate the world or the reality. The assumptions are explained in Table 4.1:

4.3.1 Common Research paradigms in Social Sciences

The common paradigms that are used in research include positivism, critical realism, pragmatism and the interpretivism research paradigms. Table 4.1 below details the positivism, critical realism, pragmatism and the interpretivism research paradigms, differences, with regards to their definitions, ontological, epistemological and methodological assumptions:

Table 4.1: Definitions; Assumptions of positivism, interpretivism, pragmatism and CR paradigms.

	Positivism	**Critical Realism**	**Pragmatism**	**Interpretivism**
Definition	Philosophical stance of natural scientists that work with observable reality within the society, leading to the production of generalisations	Develop knowledge by recognising the role of subjective information of social actors in each context or setting	Combines the positivism and the interpretivism positions within the scope within the scope of a single research according to the nature of the research.	Truth is subjective, culturally and historically situated based on the lived experiences and understanding of them
Ontology	Belief in an external reality independent of human thought or perception.	Believes in a real world independent of people's perception, that is the world functions as a multidimensional system and that causal structures that explains a phenomenon may remain latent until activated in specific situations.	Propose that ontological views can be separated from research, and that truth is understood in terms of the practical effects of what is believed	Argue that reality is as a result of human experiences and events
Epistemology	Knowledge is derived from experience of the world and the researcher is separate from what is being investigated.	Knowledge is obtained by observing and interpreting meaning to explain the elements of reality that must exist prior to the events and experiences that occurred.	Knowledge can be obtained by the use of various methods required to achieve optimum results	Knowledge is created from the action and perception of the social actors and the researcher is not separated from what is being investigated
Methodology	Mainly applies to quantitative methods: observations, experimentation.	Typically, research design is an intensive study with a limited number of cases. Involves making observations and theorising a mechanism to explain the phenomenon.	Combination of both qualitative and quantitative approaches in other to complement each other.	Mainly applies to qualitative methods such as in-depth unstructured interviews and grounded theory research.
Task of researcher	To induce strongly supported hypothesis from empirical observation and to test and improve them in an attempt to confirm invariable laws through experimentation	To provide a rich and reliable explanation of patterns of events through the development of appropriate accounts of the causal powers, entities and mechanisms that created them	To be capable of demonstrating flexibility when formulating a methodology by offering a mix of paradigms and methods as directed by the research question	To explore and reinterpret subjective meaning mainly through the identification of discourse and their construction of meaning

Source: Lawani, (2020)

Critical realism paradigm has been coined as an alternative to the interpretivism and the positivism paradigm. The critical realism paradigm seeks to develop knowledge by recognising the role of subjective information of social actors in each context or setting (Bhaskar, 2013). Bhaskar (2013) also states that critical realists take note of the independent structures that constrain and facilitate social actors to conduct research in the same contest.

Furthermore, critical realism argues that the researcher's knowledge of the external world consists of subjective interpretations because it is formed out of the conceptual framework which the researcher operates (Bhaskar, 1998). The critical realism paradigm seeks to provide rich and reliable explanation of patterns of events through the development of appropriate accounts of the causal powers, entities and mechanisms that created them (Lawani, 2020). The critical realism paradigm was the utilised in the study. In this regard, this research seeks to provide reliable and rich explanation of the role of microfinance on the sustainability of smallholder farmers.

4.3.3 Justification of the Critical Realism Paradigm

The decision to utilise the critical realism paradigm was informed by five reasons, as outlined below:

a) ***Research Question:*** the research question: '*How does microfinance support smallholder farmer sustainability in rural Zimbabwe?* seeks to establish causal tendencies in the social world (Perry, 1998; Fletcher, 2017; Lawani, 2020). When it comes to research questions, positivists focus on answering the question, 'How do we know Z?', than 'What is Z?' (Fletcher, 2017). Interrogating, the ontological perspective of the role of microfinance on smallholder farmers sustainability, the 'What is X?' in the context of the current study avoid research that is based only on epistemological positions, of altering what is known about microfinance and smallholder farmers sustainability. Critical realists argue it is essential to first abstract the underlying causal powers, or causal mechanisms, of an object under investigation and think conceptually about how they operate. In this regard, in the current study, qualitative methods assisted the researcher to undertake this task by helping him or her construct a model of a potential mechanism through analogies to other known objects, which will then be used to explain a set of observable.

b) ***Ontology***: in critical realism, reality consists of deep structures of objects or entities (Oliver, 2014). In this regard, reality in this study consists of the MFI sector and the smallholder cattle farming sector and how these two are related Sustainability of smallholder farmers is determined by the level of MFI intervention and use of MFI products and services by smallholder farmers, in spite of whether we can observe it or not.

c) ***Epistemology***: Critical realism conceives that knowledge is a social product, which is not independent of those who produce it (Oliver, 2014).

d) ***Methodology***: In the current study, research questions focused on what needs to be explored and understood, while actual research interview questions equipped the researcher with the means to gain answers to research questions (Maxwell, 2012).

4.4 RESEARCH DESIGN

In line with the critical realism paradigm, the current study utilised the case study design. Harrison et al. (2017) postulates that case studies are effective for investigating people's lives and experiences in their social and cultural context. In other words, case study research design helps researchers gain insight into how individuals interpreted and attributed meaning to their experiences and constructed their world. In this research, microfinance and smallholder farmers' sustainability constitute the social world under investigation. Figure 4.1 illustrates the research process followed in this study.

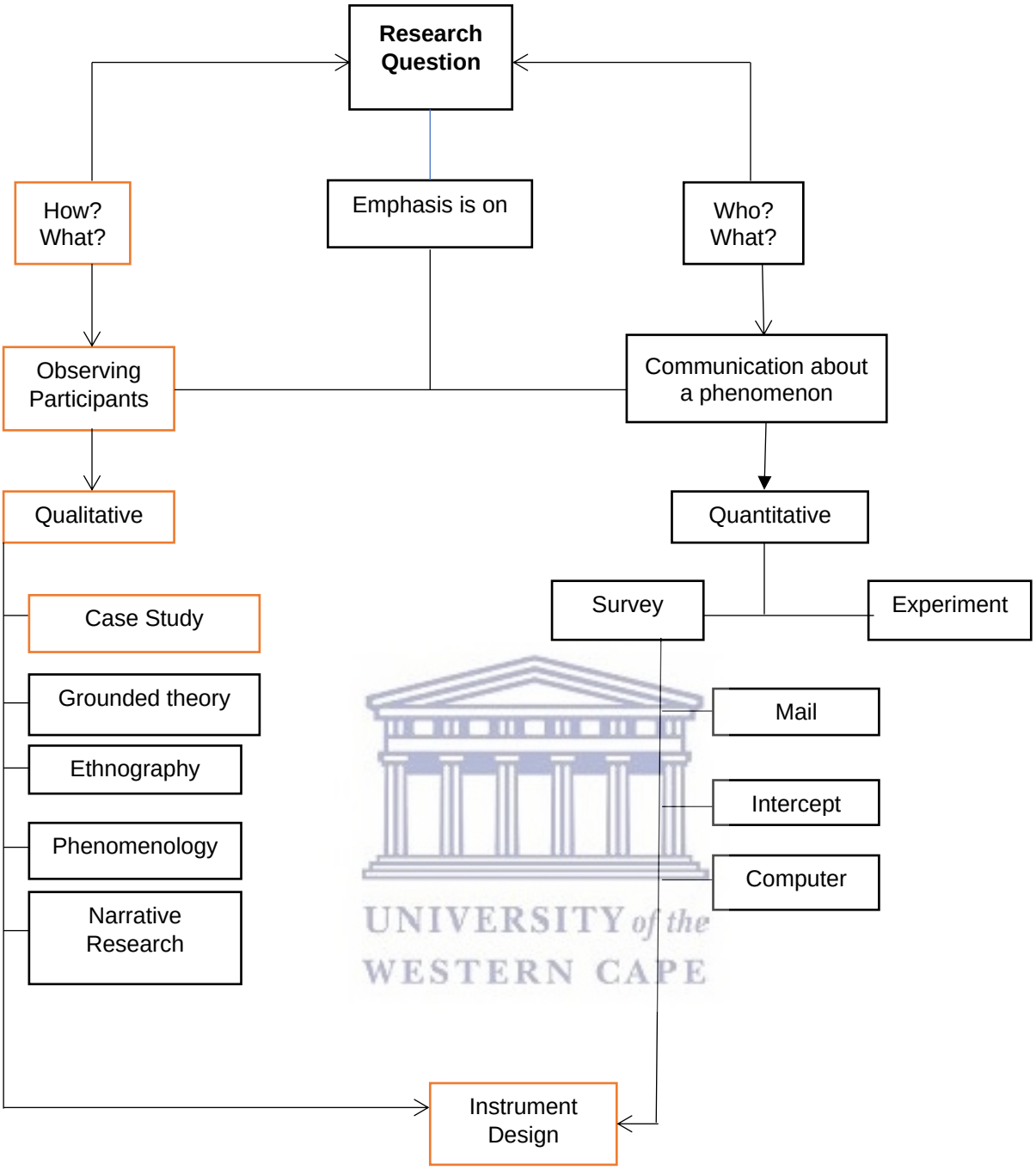

Figure 4.1: Justification of Research approach and data collection tool design.

Source: Perry (2002:33)

4.4.1 Justification of the Case Study Research Design

The case study research design was used in this study. The case study research design in this study included eight smallholder cattle farmers, in Masvingo. Case studies allowed for the smallholder farmers to share experiences about the role of microfinance on their farm and individual sustainability. Through their experiences, participants were able to describe their views of reality. This enabled the researcher to understand better the participants' actions (Yin, 2003). Case study enables the researcher to explore differences within and between cases. The goal was to replicate findings across cases, also known as cross case analysis (Yin, 2011). This allowed the researcher to carefully choose cases so that prediction of similar results across cases or prediction of contrasting results to be possible.

4.5 QUALITATIVE RESEARCH METHODOLOGY

This study utilised the qualitative research methodology. Qualitative research is concerned with exploring the 'how?' and 'why?' research questions (Yin, 2003). Qualitative research studies people or systems by interacting with and observing the participants in their natural environment and focuses on their meanings and interpretations (Kothari, 2004). Qualitative research is used in real-world situations as they unfold naturally. Using qualitative research, the researcher explored the real-world situation of how microfinance is enhancing smallholder farming in Zimbabwe.

4.5.1 Justification of the Qualitative Research Methodology

Qualitative research methodology was utilised in the study for the following reasons:

a) ***Ability to study farmers in their natural setting:*** Qualitative research allowed the researcher to explore the role of microfinance on smallholder farmers' sustainability, within their farming areas, supported by social meanings from the smallholder farmers who are using microfinance services.

b) ***Research Question***: qualitative research was used in this research because of the recommendations by Denzin and Lincoln, (2005) that qualitative research can be used to address those questions relating to how social experiences are created and give meaning. This then creates illustrations of the experience within a specific environment and makes the experience visible. In this regard, this study sought to address, 'how microfinance is

contributing to smallholder farmers' sustainability?' and illustrate the experience of microfinance role on sustainability, in the smallholder farming set up.

c) ***Insights from actions***: qualitative research methodology was utilised in the current research because of its capacity to provide robust insights from actions that have occurred in a real-life context (van Esch & van Esch, 2013:220). For example, the role of microfinance services that are being used by smallholder framers in enhancing the farmers' farming activities and individual sustainability.

a. ***Understanding of underlying social processes***: qualitative research preserves the intended meaning which forms an understanding of underlying social processes and meaning in business management environment. Qualitative research provides memorable examples that enrich the business management field, that are drawn from experiences and perceptions of the research participants (van Esch & van Esch, 2013:220) in this case smallholder farmers.

4.6 POPULATION OF INTEREST

Smallholder farmers who utilise microfinance services constituted the population of the study. To define the target population of the study, four aspects were used namely, element, sampling unit, extent, and time (Malhotra, 2010), as summarised in Table 4.2.

Table 4.2: Target Population

Population criteria	**Explanation**
Element	MFI customers engaged in smallholder farming in Zimbabwe, as they the individuals from whom information about the study was being sought.
Sampling unit	MFI-mediated smallholder cattle farmers in Masvingo Province, Zimbabwe.
Extent	Smallholder cattle farmers, that reside in communal, A1 and old resettled farms in Masvingo province, Zimbabwe.
Time	Active farmers between January and February 2020

Source: Adapted from Malhotra (2010)

4.7 SAMPLING

Purposive sampling was applied to the study. The number of smallholder farmers that participated in this research was determined by data saturation. The concept of data saturation determines the level at which the researcher begin to receive repeated information from the research participants. Hennink, Kaiser, and Weber, (2019) states that data saturation refers to the point in data collection when issues begin to be repeated and further data collection becomes redundant. In this regard, data saturation was reached when the researcher had collected data from eight smallholder farmers. The following criteria for inclusion was applied.

Table 4.3: The criteria for inclusion

Criteria	**Included**	**Excluded**
Location of farm	Masvingo	Farming activities outside Masvingo
Farm size	A1, Communal and Old resettled farms	Medium and large-scale farms
Type of MFI	Sustainable MFIs	Subsidised Lending MFIs
Type of Farming	Cattle farming	Crop farming
Number of years SHF has been receiving Funding from MFI	More than 2 years	Less than 2 years

Source: Researcher's Own Construct

4.8 DATA COLLECTION INSTRUMENT

An interview guide facilitated the research. The interview ensured a comprehensive and in-depth analysis of the various perspectives and views of the participants. The tool was flexible and encouraged free-flowing dialogue which encouraged participants to freely express their opinions and feelings. The interview guide that was utilised for this study is outlined in Appendix 4.

4.9 DATA COLLECTION PROCEDURE

4.9.1 Interviews

The interviews were held face to face at the smallholder farmers' cattle farming sites. The researcher was given contact details of the smallholder farmers, which he used to set up interview meetings with the farmers. Interviews were held at the scheduled times. The interviews were conducted in both English and Shona. The interviews were recorded using a digital recorder and were transcribed immediately after the interviews were concluded. Transcripts of transcribed data were produced and delivered to the smallholder farmer for accuracy and interpretation checks. This facilitated bias control and production of reliable data, as outlined by Saunders, Lewis and Thornhill, (2019)

4.9.2 Documents

Documents reviewed included product brochures, loan application forms, administrative documents, company memos, progress reports and meeting minutes. Documentation facilitated the comprehension of MFI interventions that were available for smallholder farmers. These were to confirm if what the smallholder farmers said during interviews match with the general broad services offered by MFIs. In addition, the documents were utilised to confirm the data received during the interviews. The MFI document review allowed the researcher to probe further and confirm details, hence avoiding any contradictions.

4.10 TRUSTWORTHINESS OF DATA

Trustworthiness is a demonstration that the evidence for the results reported is sound and the argument made based on the results is strong. Shenton, (2004:71) highlights four criteria to ensure that the interpretation of qualitative research data is credible, dependable, confirmable and transferable and these are discussed in the next section:

4.10.1 Credibility

Credibility establishes whether research findings represent plausible information drawn from the participants' original views (Anney, 2014). Credibility of this research was enhanced by triangulation of data sources. The data sources that were used in this study include:

- documents from the two MFIs, where the smallholder farmers were accessing MFI services
- as well as semi structured interviews with smallholder cattle farmers

4.10.2 Dependability

Dependability ensures that research findings, interpretations and recommendations of the study are supported by the data collected (Anney, 2014). Dependability also establishes whether the research findings are consistent and repeatable. To enhance dependability, the researcher transcribed the interviews with participants and all the interview transcriptions were uploaded to ATLAS.ti 9. The researcher also maintained a research diary that detailed the process of data collection, data analysis and the results of the research study. This was done to confirm the accuracy of the research findings and to ensure that the findings are supported by the data that was collected. Research diary helped to articulate findings and build stronger case for the current research study findings.

4.10.3 Confirmability

Confirmability is the degree to which the results of questions could be confirmed or corroborated by other researchers (Shenton, 2004). The researcher kept a research diary. The researcher recorded the topics that were unique and interesting during the data collection, wrote down thoughts about coding, and provided rationale on why some codes were merged and provided an explanation on what themes meant.

4.10.4 Transferability

Transferability is the interpretive equivalent of generalisability (Anney, 2014). The researcher facilitated transferability by purposive sampling. In this study, the study sample was clearly described in the data analysis chapter and each individual case is described, in terms of age, gender, land size, land area, operations, use of microfinance services among others. In addition, various characteristics of the participants were described, making it possible for the reader to compare their context with that of this study.

4.11 DATA ANALYSIS

ATLAS.ti was used for thematic data analysis.

4.11. 1 ATLAS.ti

ATLAS.ti is a qualitative data analysis (QDA) tool that is user friendly and flexible. ATLAS.ti enables researchers to assign codes, labels to text, sounds, pictures or video to search these codes for patterns and to construct classifications of codes that reflect stable models of the conceptual structure of the underlying data (Lewis, 2014). ATLAS.ti 9 was used in the current research. The analysis of data process is detailed below:

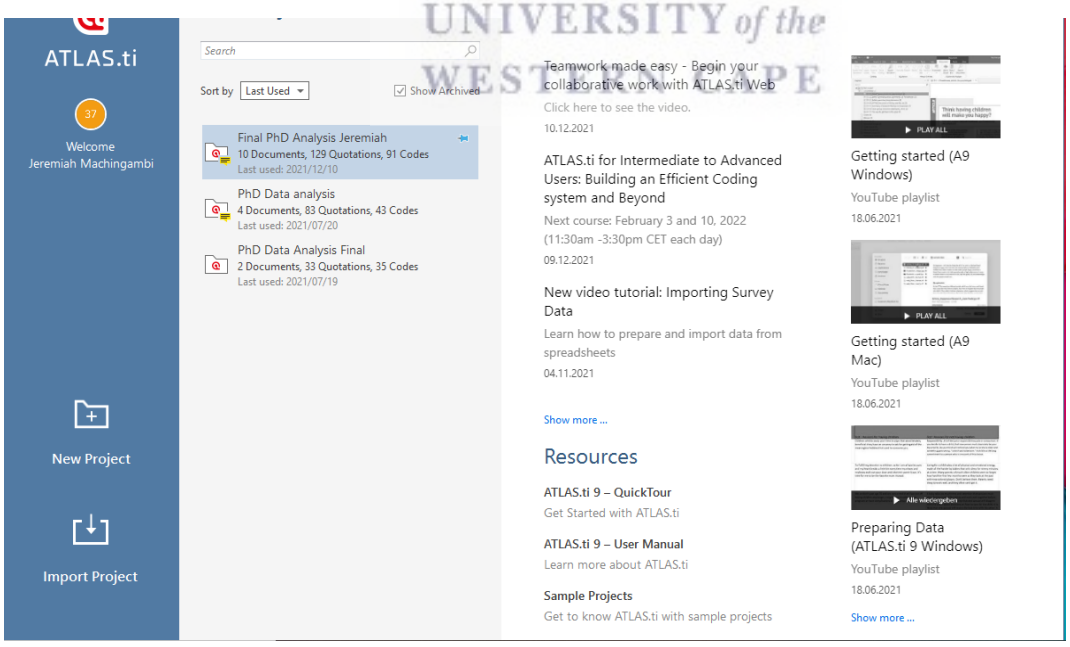

Figure 4.2: ATLAS.ti Main Window

Source: Data Analysis

4.11.2 Data Analysis Process in ATLAS.ti

STEP 1: Importing Transcribed Interviews

All the transcribed interviews were imported to the ATLAS.ti to form the Primary Document, as shown in Figure 4.3.

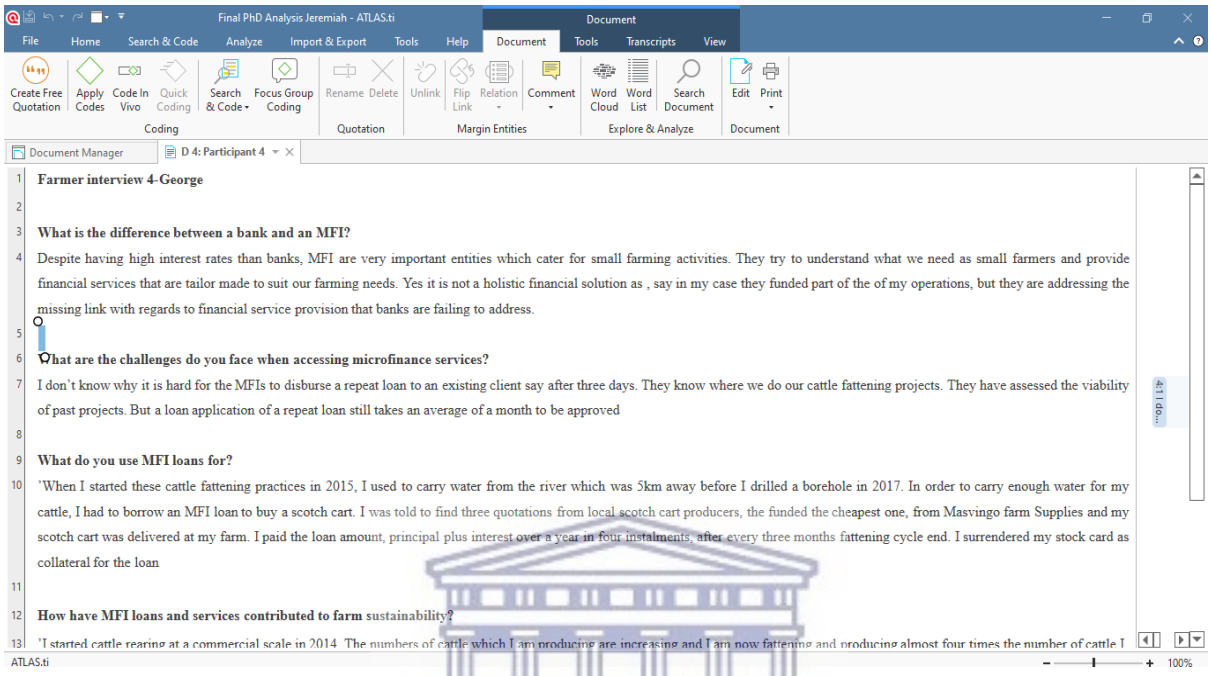

Figure 4.3: ATLAS.ti Primary Document Manager Window

Source: Data Analysis

The Primary Document Manager programme can store and analyse several documents simultaneously, and these are temporarily stored in the Primary Document Manager (for example, P1: Transcribed Data Uses of Microfinance loans dox in Figure 4.3). Furthermore the Primary Document Manager allowed the researcher to create Primary Document families, which assisted in organising data for the study.

STEP 2: Open Coding

The second step was the generation of various categories using constant comparison of data through a procedure called, open coding (Age, 2011). The open coding procedure saturated the whole research process, since involved comparing cases to cases, and then comparing the emerging data to more cases throughout the data collection process (Heath and Cowley, 2004). The Code Manager is used in ATLAS.ti to execute this process. By using this function, data was clustered into related ideas called codes (See Figure 4.4).

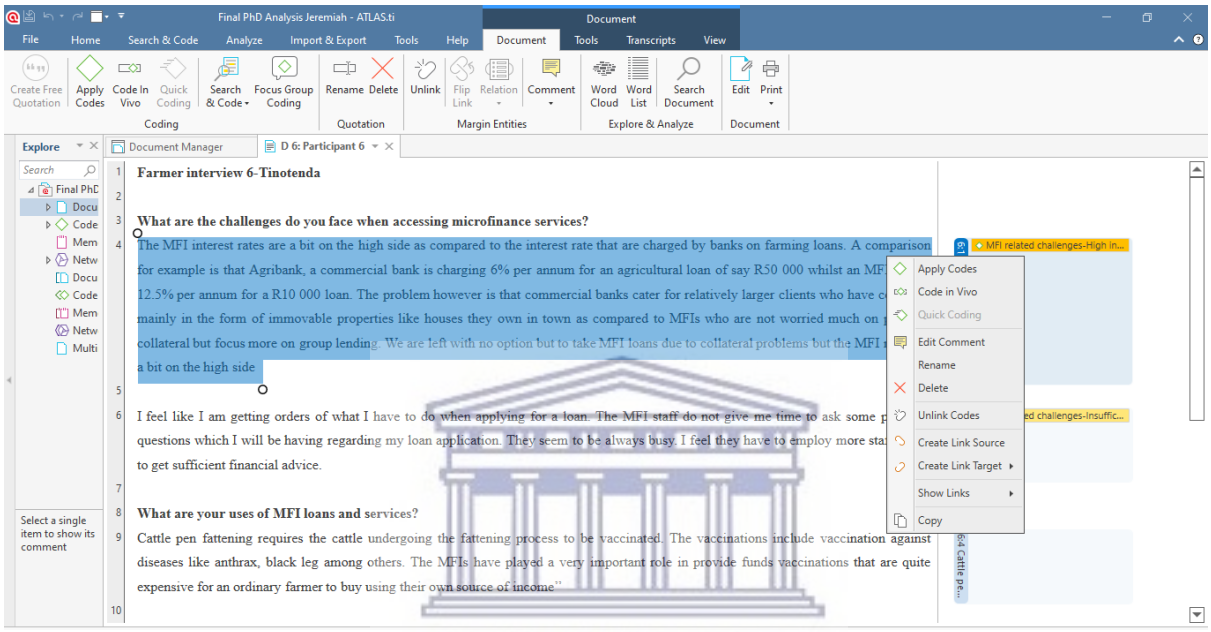

Figure 4.4: ATLAS.ti Codes Option Window
Source: Data, Analysis

Through coding, the researcher obtained meaning from paragraphs, sentences, phrases, and words on the Primary Document manager text on ATLAS.ti. The researcher highlighted the paragraph, sentence, phrase, word and right clicked on the highlighted text to create a code as shown in Figure 4.4. Continuously repeating the process on the Primary Document Manager text allowed the researcher to create multiple codes.

STEP 3: Core Categories and Selective Coding

Here multiple codes were amalgamated into families, or themes in which further analysis was conducted as shown in Figure 4.5.

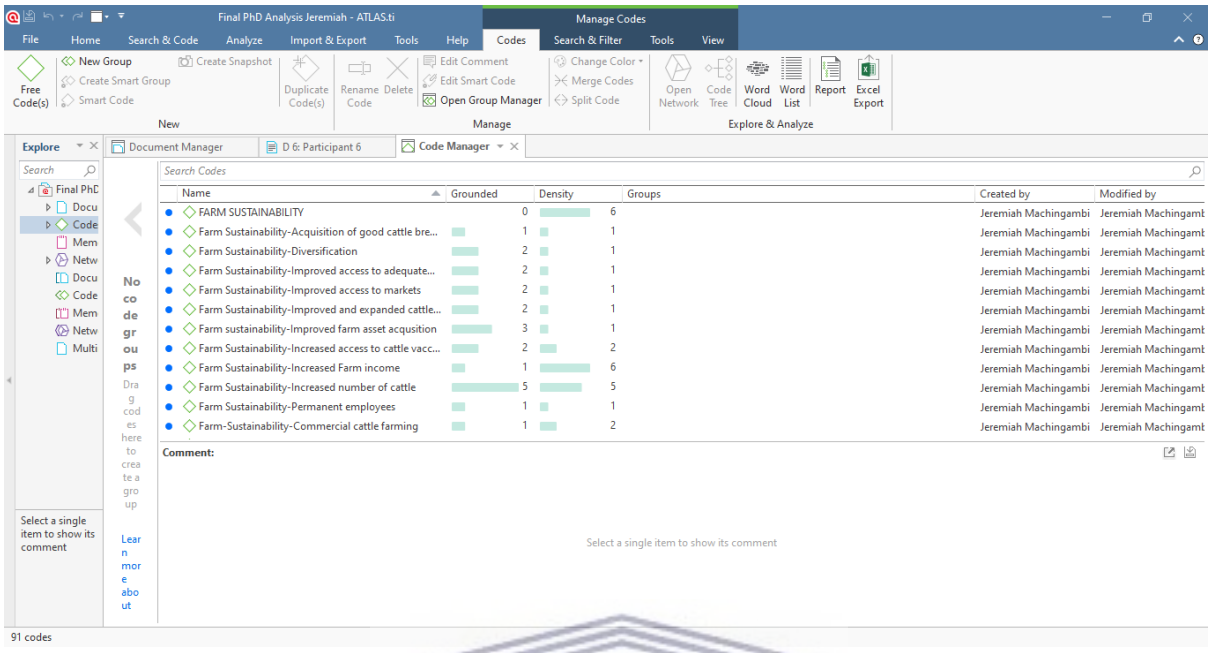

Figure 4.5: ATLAS.ti Codes Manager Window

Source: Data Analysis

With the continuation of the above procedure of constant comparison, the researcher established core codes (acquisition of good cattle breeds, diversification Figure 4.5) which was based on the information that was proffered by research participants, which is a category that holds all other categories together (for example, FARM SUSTAINABILITY in Figure 4.5). When the core code emerged, selective coding was conducted by the researcher (Heath & Cowley, 2004). Selective coding allowed the researcher in the current research to incoming data to the core codes in a more precise manner than when the categories were first established (Neegaard & Uhoi, 2007). Only those categories related to the codes were considered in order to generate improved categories, through selective coding.

STEP 4: Thematic Analysis

Continuation of comparisons across each category facilitated the researcher to develop themes which had been used to report the findings in this section. Furthermore, cross examination of the categories was made through a process of Noticing, Coding and Thinking (NCT). Patton (2002) recommended NCT strategy as very useful when generating themes in qualitative research studies. The NCT process enabled the study to formulate a road map which assisted in determining themes relevant in answering the research questions.

In total five themes were extracted from research questions and research study findings set out in Chapter 5. In a bid to understand the role of Microfinance on smallholder farmers sustainability the following themes were developed based on the categories and codes formulated from the interviews using ATLAS.ti**.** This entails the role of Microfinance in smallholder farmers sustainability. Five themes which emanated from the research setting (rural Zimbabwe) include:

THEME 1: ***MFI loans access challenges*****:** These are all set of smallholder farmers challenges that smallholder farmers face when accessing MFI services. This is based on the pretext that the unit of analysis for this study were smallholder cattle farmers who were accessing MFI services.

THEME 2: ***Uses of MFI loans:*** In the context of this study, this related to how the smallholder cattle farmers are utilising the loans that they are receiving from MFIs

THEME 3*: Farm Sustainability:* This relates to how Microfinance has contributed to the sustainability of cattle farming activities, at both farm level and small cattle farming sector level. These include access to markets, commercial cattle farming and adoption of new agricultural technology, increased number of cattle, improved access to quality and adequate cattle feeds; acquisition of improved cattle breeds; improved farm asset acquisition; improved access to vaccines, improved and expanded housing and diversification.

The theme also includes farm sustainability challenges. In the context of this study, these are sustainability challenges which smallholder farmers are facing despite efforts by MFIs to remove those barriers. Most of these challenges need to be addressed by the recommendations of the current research study and the model which is going to be formulated at the end of this Chapter.

THEME 5*: Personal Sustainability:* This entails the contribution of Microfinance to the farmers' personal sustainability. Themes which emerged include, improved household income and savings, improved household food security, self-esteem and improved quality of life. The section also includes personal sustainability challenges. Those personal sustainability parameters which are not being fulfilled, despite the partnership between MFIs and SHFs. The Grameen bank 16 principles determined the parameters that were probed to the participants, to determine their personal sustainability.

4.12 ETHICAL CONSIDERATIONS

Data collection instrument was submitted to the Research and Ethics committee of the University of the Western Cape to ensure that it conformed to the regulations of the University. Ethical clearance was granted (ethics reference number: HS19/5/29). The following ethical considerations were adhered to in the current study.

a) ***Informed consent*:** The researcher obtained consent from the participants and assured them that whatever information elicited would remain confidential. Also, their names will not be revealed. The researcher obtained verbal informed consent before conducting the interviews (See Appendix D).
b) ***Voluntary participation:*** The participants were also informed about their right to voluntarily participate in the interviews and their right to withdraw from the study interviews at any time if they wanted to (Patton, 2002:105).
c) ***Confidentiality:*** All participants' information and responses shared during the study were kept private and the results were presented in an anonymous manner in order to protect the identities of the participants.
d) ***Anonymity:*** The participants' names and any other information that could make the readers identify them was not requested thus confidentiality and anonymity was preserved throughout the research process (Patton, 2002:107). Pseudonyms (indicated by asterisks*) were used to mask the identities of research participants throughout the chapter and the whole thesis.
e) All the recordings and audio-recordings will be destroyed five years after the study has been completed, in accordance with university policy. The research data that was collected for this current study will be stored and retained for a minimum of five years (Patton, 2002:107) and will be stored at the University of the Western Cape School of Business and Finance.
f) ***Protection from harm**:* The researcher ensured that participants are not exposed to any undue physical or psychological harm (Leedy & Ormrod, 2016). During the study, the

researcher strived to be honest, respectful and sympathetic towards all participants and if by any chance the participants require debriefing after an interview, the researcher was willing to provide it. The participants were not, at any stage of the research process placed at any psychological or any other form of risk. At any moment where the researcher saw that the participant was not comfortable with the question, he skipped the question and asked the next question.

4.13 CONCLUSION

The chapter presented the research paradigm that guided the study, described the research approach, the research methods adopted and the other research methodology components. It also presented the research design, sampling strategy, data collection and procedures, and ethical considerations. The above techniques and explanations outlined in this relevant chapter, serve as a proper guideline for the result and analysis of the data. The next chapter presents the research data gathered from the semi-structured interviews conducted in the current study.

CHAPTER 5
DATA ANALYSIS AND RESULTS

5.1 CHAPTER OVERVIEW

This chapter presents the data analysis processes and procedures that were used for the study. The critical aspects outlined in this chapter are the description of cases, cross case analysis, matrix analysis and model formulation.

5.2 INTRODUCTION

This chapter outlines the analysis and interpretation of data in line with the research questions by first describing the farmers that participated in the study, cross-case analysis. The chapter presents the data in matrix forms, paving way for the study's' framework, the '*Smallholder Farming Sustainability Pathway Framework*'.

5.3 CASE DESCRIPTION

A total of eight smallholder cattle farmers participated in the study. Each farmer was considered to be a case study. To adhere to the research ethics requirements of anonymity and confidentiality, the participants' names and any other information that could make the readers identify them was not requested thus confidentiality and anonymity was preserved throughout the research process (Patton, 2002:107). Pseudonyms (indicated by asterisks*) were used to mask the identities of research participants throughout the chapter and the whole thesis.

5.3.1 Participant 1: Donald*

Donald* is a 51-year-old communal farmer who resides in Chikuku, Bikita, which is approximately 120km from Masvingo. Donald acquired cattle rearing experience in South Africa where he previously worked for numerous beef commercial farmers for nine years in the Western Cape. Donald, has a total herd of 41 cattle, breeds and fatten an average of 15 cattle per each 60 days fattening cycle on his 3.8-hectare farm. The farmer cattle farming operations are being funded by MFIA.

5.3.2 Participant 2: Namatai*

Namatai*, a 44-year-old, old-resettled farmer who resides in Mushandike, 35km from Masvingo town. Namatai, has a total herd of 32 cattle, fattens an average of 10 cattle per each 60 days of the fattening cycle on his 3-hectare farm. Namatai* is also into small scale feed farming. Namatai* started fattening cattle using basic knowledge which he was being advised by fellow cattle farmers in Gutu, by that time. In 2013 the farmer borrowed money from MFIB, for cattle farming purposes.

5.3.3 Participant 3: Edwin*

Edwin*, a male 48 years old, A1 farmer resides in Chartsworths, 60km away from Masvingo town. Edwin has a total herd of 37 cattle fattens, an average of 15 cattle, per each 60 days fattening cycle on his 6.2-hectare farm. The farmer technically had no small-scale commercial farming skills as the late father was more of rearing the cattle on a subsistence basis. The farmer attended training for small scale commercial beef cattle farming which was offered by the Department of Veterinary Services under the Ministry of Agriculture in 2011. The farmer approached MFIA to borrow funds from the MFI in 2011 after the training.

5.3.4 Participant 4: George*

George* a male 63-year-old, A1 farmer, resides in Chartsworths, 60km away from Masvingo. George* with a total herd of 28 cattle fattens an average of eight cattle per each 60 days fattening cycle on his 7.2-hectare farm. The farmer worked for Cold Storage Commission as a training officer for smallholder farmers who were into breeding of cattle for 15 years. The farmer started breeding and fattening of cattle, unfortunately in 2011 most of his cattle were attacked by the Foot and Mouth disease a. His herd was depleted from 65 to 24 cattle. He then approached MFIB for funding to boost his cattle farming in early 2012.

5.3.5 Participant 5: Melisa*

Melisa* a female 38-year-old farmer resides at Rufaro, 20km away from Masvingo. Melisa with a total herd of 16 cattle, fattens an average of 7 cattle per each 60 days fattening cycle on her 3.4-hectare farm. The farmer, together with other 14 farmers were approached by the Ministry of Agriculture, Lands and Rural Resettlement in 2015, to partake training in cattle fattening and breeding. The Ministry partnered with MFIA to have the 15 farmers who went for the training to get funding for small scale cattle farming activities starting January 2016.

5.3.6 Participant 6: Tinotenda*

Tinotenda* is a male farmer, aged 48 years; a primary college lecturer by profession who resigned to venture into full time cattle farming. Tinotenda* holds a land size of 3.56ha and is located in the communal lands of Masvingo District, in Mapanzure area, 56km from Masvingo Town. Tinotenda* is now a full-time cattle farmer and runs two butcheries at the local township, Mapanzure and at a Growth point, Nemamwa Growth point which is 26km from Mapanzure area. The farmer has a total herd of 20 cattle and fattens an average of 15 cattle for a three-month cycle. The farmer has six employees that is four who work in the butcheries on a two-week rotational basis and two who herd the cattle. The two are involved in the actual operations of the cattle farming business, that is the fattening of the cattle. The farmer started the cattle farming business on a commercial scale in the year 2010 whilst he was still a lecturer at a local primary school teacher training college. The farmer borrowed a loan from MFIB which he used to buy stock feeds, vaccines and some equipment.

5.3.7 Participant 7: Rachel*

Rachel* a 41-year-old female, A1 resides at Zvamahande, 25km away from Masvingo town. The farmer, with a total herd of 32 cattle, fattens an average of 15 cattle per each 60 days fattening cycle on her 5.2-hectare farm. She benefits from arbitrage opportunities that buy cattle from the villagers at a lower price and sell the cattle at a higher price to Montana meats. Rachel* was in the agent business for more than six years up to 2012 when she did train in cattle fattening and breeding by the Ministry of Agriculture. The famers' names were forwarded to MFIA for funding.

5.3.8 Participant 8: Mkhululi*

Mkhululi*, 46-year-old, male A1 farmer resides in Zvamahande. The farmer, with a total herd of 19 cattle, fattens an average of six cattle per each 60-day fattening cycle. The farmer attended training for small scale commercial beef cattle farming which was offered by the Department of Veterinary Services under the Ministry of Agriculture in 2015. The farmer approached MFIA to borrow funds from the MFI B in 2015 after the training.

Having discussed the description of the eight smallholder farmer cases, Table 5.1 below show a summary of the smallholder farmer cases used in the current study. The summary details the age, land size, area, total herd, operations, whether the farmer is operating in a loose or tight value chain, number of years using MFI funding and the sources of additional capital

Table 5.1: Summary of Smallholder farmers participant information.

PARTICIPANT	Age	Gender	Land size	Area	Total herd	Operations	No of years receiving Funding from MFI	Sources of additional funding
Participant 1: Donald	51 years	Male	3.8 hectares	Communal land	41	Cattle fattening Breeding	5 years	Own funding Diversified into small livestock farming
Participant 2: Namatai	44 years	Male	3 hectares	Old Resettlement	32	Cattle fattening	8 years	Own funding Selling cattle
Participant 3: Edwin	48 years	Male	6.2 hectares	A1	37	Cattle fattening	10 years	Own funding
Participant 4: George	63 years	Male	7.2 hectares	A1	28	Cattle fattening Breeding Stock feeds farming	9 years	Own funding
Participant 5: Melisa	38 years	Female	3.4 hectares	Old Resettlement	16	Cattle fattening	5 years	Own funding Selling livestock
Participant 6: Tinotenda	48 years	Male	3.56 hectares	Communal land	20	Cattle fattening	10 years	Butchery business Own funding
Participant 7: Rachel	41 years	Female	5.2 hectares	A1	32	Cattle fattening	9 years	Own funding
Participant 8- Mkhululi	46 years	Male	6.2 hectares	A1	19	Cattle fattening	6 years	Own funding

Source: Researcher's Own Construct

5.3.9 Smallholder farmers land type and operations

This study showed land type categories of smallholder farming in Zimbabwe, as highlighted in literature. The categories, as highlighted earlier comprised of three types namely, A1 or newly resettled farmers, old, resettled farmers and communal farmers. Table 5.2 show the operations, with regard to smallholder cattle farming operations, which emerged from the data collected in the study.

Table 5.2 Land type vs Operations (8 Farmers).

	Fattening	**Breeding**	**Stock feed**	**Fattening & Breeding**	**Fattening & Stock Feed**
A1 land	4 of 4	1 of 4	1 of 4	1 of 4	1 of 4
Old Resettlement land	2 of 2	1 of 2	X	1 of 2	X
Communal land	2 of 2	X	X	X	X

Source: Research data, 2020

The results of the research revealed that, the newly resettled farmers, or A1 farmers proved to be the carrying out diverse cattle farming and related operations as compared to the other types of smallholder farmers, that is communal and old resettled farmers. A1 farmers, as shown in this study results were involved in all the cattle farming prominent operations like fattening, breeding and stock feed farming. The results augur well, with (Scoones, Murimbarimba & Mahenehene, 2019), which argue that farmer led irrigation systems in A1 farms in Masvingo Province, potentially offer opportunities for some smallholder farmers to commercialise through irrigation, generating surpluses, raising income, employing labour, investing and accumulating. On the same note, the provision of new agricultural technologies, like zero grazing, stock feed, potash, vaccine, water to smallholder cattle farmers by MFIs showed that, it enhanced farmers to commercialise their cattle farming activities.

Despite myths surrounding the land reform programme that there was no investment going on, that agricultural production has collapsed, that food insecurity is rife, that the rural economy is in precipitous decline, Shonhe and Scoones (2021) argued that the A1 farmers were engaging in multiple forms of economic activity, connected to diverse markets, and carving out a variety of livelihoods. The same results were also found in the current study where, given financial and non-financial resources by MFIs the smallholder cattle farmers managed to commercialise their cattle. farming activities. Th study argues that the provision of microfinance services, is enhancing the commercialisation of smallholder cattle farming, which was mainly subsistence since time immemorial (Mavedzenge, Mahenehene, Murimbarimba, Scoones & Wolmer, 2008). This has been enhanced mainly through adoption of new agricultural technologies like

stock feeds. The trend has been seen in all the three-smallholder farming types of namely A1 farmers, communal farmers, and old resettled farmers. Although literature has documented that the economic rationale for cattle ownership in communal lands provide draught power and manure for tillage and milk and meat for local consumption (Barrett, 1991). The results of this study showed that the situation has changed with famers from the communal, old resettled and A1 land, all engaging in commercial smallholder farming.

5.4 MICROFINANCE CASE SUMMARIES

MFI A and MFI B that were drawn from document analysis of the two MFIs that were offering MFI services to smallholder cattle farmers described in the 5.2.

Table 5.3: MFI Case Summaries. **Source**: Document Analysis

	MFI A	**MFI B**
Paradigm	Sustainable lending approach	Sustainable lending approach
Deposits	Deposit Taking	Credit Only
Products	Wide range of products	Narrow range of products
Product focus	loans and savings	loans
Staff	More staff at branch level	Few staff at branch level
Delivery	Group and individual lending	Group and individual lending
Organisational structure	-Formal & Registered Companies -Licensed by the Reserve Bank of Zimbabwe	- Formal & Registered Companies -Licensed by the Reserve Bank of Zimbabwe
View on customers	View the poor as clients	View the poor as clients
Ownership	Privately Owned	Privately Owned
Regulation	-Regulated	-Regulated
Products and Services	Rural and Agricultural loans; Mobile Money Transfer; Business Loans; Asset Financing; Group Lending and Personal loans.	Savings; Agriculture loans; Personal loans; Group lending; Business loans; Foreign Remittances; Investments; Leasing; Asset financing and Mortgages.

5.5 CROSS CASE ANALYSIS

5.5.1 Challenges facing smallholder farmers when accessing MFI Loans

The challenges facing smallholder farmers when accessing MFI loans, emerged in two forms. That is the challenges that emanated from the MFI and the challenges that were inherent in the smallholder farmers themselves. The challenges facing smallholder farmers when accessing MFI loans that emanated from the MFI highlighted are as follows (1) cumbersome application procedures, (2) disbursement lag time, (3) high interest rates, (4) corruption, and (5) insufficient financial advice.

5.5.1.1 Cumbersome application procedures

Cumbersome application procedures relate to long application processes, and a lot of paperwork which need to be completed when applying for a loan. Cumbersome application procedures were mentioned as challenges farmers were facing when accessing MFI loans. Participant 1 indicated that:

> *The loan application process is very cumbersome. There are a lot of papers you have to complete. The MFI personnel do not take their time to explain to us what all those forms mean. Some of us have gone to school up to just primary level. I do not even understand what I need to complete on the forms* ***(Participant 1; Quote 1).***

5.5.1.2 Disbursement lag time

Disbursement lag time is the time taken by the MFI to disburse the loan, after the smallholder farmer had applied for the loan (Kumar, 2012). The interviewed smallholder farmers were for the view that the MFIs were taking long to disburse loans to them. This was evidenced by the sentiments of Participant 2, 3 and 4.

> *We usually apply for the MFI loans as a group of say five. The reason for this is that we would want to receive the funds at the same time, for us to start the fattening cycle together such that, after say three to four months of the fattening cycle, we would send our fattened cattle together as a group to reduce transport costs. It will be expensive say for one farmer to transport his or her cattle to the market alone as the private abattoirs give us free transport if we are transporting more than twenty cattle to the market. The MFI however can disburse the loans say for three farmers after three weeks of application and disburse for the remaining two farmers in the group*

say after five to six weeks of application. That will automatically delay our cattle fattening by three weeks as we have to wait for others to start the fattening cycle ***(Participant 2; Quote 1),***

When we apply for the loans from the MFI, they give us an assurance that it will take at least three weeks for the loans to be approved and be disbursed to us. We start preparing for the fattening cycle in the hope that in the third week we get money for the feeds and vaccines from the MFI loan. Three weeks down the line the MFI will keep telling you that you can check tomorrow. Only to receive the loan in the sixth or seventh week, imagine, who will compensate for all this lost time ***(Participant 3; Quote 3) and,***

I don't know why it is hard for the MFIs to disburse a repeat loan to an existing client say after three days. They know where we do our cattle fattening projects. They have assessed the viability of past projects. But a loan application of a repeat loan still takes an average of a month to be approved ***(Participant 4; Quote 1.).***

5.5.1.3 High interest rates

Participant 6 and 8 mentioned that the interest rates that were being charged by the MFIs on smallholder farming loans were high and not sustainable for them to be profitable, considering their small-scale nature. The farmers gave the following reviews:

The MFI interest rates are a bit on the high side as compared to the interest rate that are charged by banks on farming loans. A comparison for example is that Agri bank, a commercial bank is charging 6% per annum for an agricultural loan of say R50 000 whilst an MFI charge 12.5% per annum for a R10 000 loan. The problem however is that commercial banks cater for relatively larger clients who have collateral mainly in the form of immovable properties like houses they own in town as compared to MFIs who are not worried much on physical collateral but focus more on group lending. We are left with no option but to take MFI loans due to collateral problems, but the MFI rates are a bit on the high side ***(Participant 6; Quote 1.) and***

The truth is that we need subsidies on the loans that we get from the MFIs. I know that the MFIs are there to make business and they are bound to charge interest rates that allow them to have sustainable operations. I feel the government also have to cheap in and give the MFIs cheap monies that they can add to their private capital that they give us. In that way, I think this can help to bring down the interest rates as there will be a blend of subsidised funds from the Government and private funds from MFIs ***(Participant 8; Quote 1).***

5.5.1.4 Corruption

Corruption was also mentioned by interviewed smallholder farmers as a challenge being faced by smallholder farmers when accessing MFI loans. The smallholder farmers indicated that there was corruption with regards to group formation, loan amount allocation and disbursements of the loans. This was cited in the following excerpts:

> *MFI staff is very corrupt in allocating the MFI funds. We have a case where we applied for cattle fattening loans as a group of four people. We were allocated the funds that were averaging R30 000 each. We however picked that there was a fifth person who was on our group list who had been allocated R55 000. We do not know the person; we do not know where he or she comes from, and we do not know whether the person repaid the money to the MFI or not* ***(Participant 7; Quote 3) and;***

> *If you fail to give the MFI loan officers some bribe your money will be disbursed very late. We are left with no option but to raise the money as a group to bribe the MFI staff for the money to be disbursed early...(laughter)..., but please do not report us to the MFI staff, we still need more loans from them* ***(Participant 1; Quote 2).***

5.5.1.5 Insufficient financial advice

Participant 1; 3 and 6 indicated that the MFI personnel were unfriendly to the clients and were not giving enough financial advice. The farmers highlighted the following:

> *It is only the Team leader who understands what is supposed to be done in the MFI. He takes his time to answer our question and explain to us the loan tenure, interest rates, repayment and even importance of utilising the loans for the purposes we applied for. The loan officer however does not give me sufficient advice. It seems he does not even know the basic microfinance processes.* ***(Participant 3; Quote 6).***

> *I feel like I am getting orders of what I must do when applying for a loan. The MFI staff do not give me time to ask some pertinent questions which I will be having regarding my loan application. They seem to be always busy. I feel they must employ more staff for us to get sufficient financial advice* ***(Participant 6; Quote 3).***

At one time I went to apply for a loan for my cattle project. I told the loan officer that I did not understand what is on the application forms. The loan officer just called someone who was sitting in the office who was not even part of the MFI staff to assist me; they do not have time for us ***(Participant 1; Quote 3).***

In addition to the MFI related challenges, that emerged from the research results, the results also revealed that, there are challenges that are inherent to the farmer that may hinder the farmer from increasing the loan amount or accessing the loan amount that is sufficient to carry out farming activities These challenges are referred to as smallholder farmer challenges. The interviewed smallholder farmers highlighted the following smallholder farmer challenges, low financial literacy, information asymmetry, gender, negative social capital and availability of collateral.

5.5.1.6 Low financial literacy

Financial literacy entails the ability of an individual to understand and use effectively the various financial skills at his or her disposal that include personal finance management, credit management, investment management and budgeting (Lusardi, 2019). People with high financial literacy usually find it easier to understand the terms and conditions of MFI loans as well as savings services. The interviewed smallholder farmers indicated low financial literacy as a factor that was affecting farmers when accessing MFI loans. Participant 2 and 7 commented that:

I acknowledge that the MFI loans are helping me much in my cattle farming as I managed to go commercial, I however maintain my debt at the same level because I fear that if I borrow much, I might not be able to repay it back. I still feel I need to be equipped with enough credit management skills for me to borrow more. ***(Participant 2; Quote 2) and,***

It is hard for me to make a budget of say how much I need to fatten ten cattle; I end up borrowing less than what I exactly need due to my poor budgeting skills ***(Participant 7; Quote 4).***

5.5.1.7 Information asymmetry

Access to MFI information is of paramount importance to the borrower as it helps the borrower to make informed decisions on the amount of money he or she can borrow and invest in the business or farming activity. Information asymmetry was however indicated as one of the factors affecting smallholder farmers when accessing MFI loans. This was evidenced with comments by Participant 5:

> *When I was growing up, we were told that MFIs are loan sharks which are there to lend people money at high interest rates and in the case of default they take everything from your home and leave you with nothing. I will maintain the same level of the loan amount I borrow because I fear that they can take all my property in the event of default.* ***(Participant 5; Quote 1).***

5.5.1.8 Gender

The requirement of the females to consult their husbands before borrowing or increasing a loan, as well as the traditional cultural connotation that a girl child is not entitled to any inheritance from her father were also indicated as the gender related challenges when accessing MFI finance (Jumpah et al. 2019). Participant 5 and 7 commented that:

> *I am the one who is part of these MFI funded cattle fattening projects, and my husband is not involved as he works in the city as a soldier. Now I am getting an average of R12000 per every cattle fattening cycle. It is now my second year in these cattle projects, and I thought that I could be requiring say R30 000 as I also need to increase my profits and income. When I consulted my husband, he refused citing the fact that we can lose everything we have worked for if I fail to settle the debt. If I was a man, it was easy because I could just increase the debt without consulting anyone.* ***(Participant 5; Quote 2) and,***

> *I am currently getting R18 000 per every fattening cycle and our fattening cycle takes an average of three to four months. I cannot borrow more funds to increase my cattle production, but my father said I cannot increase my MFI loan amount because I am a girl child who is not even entitled to run these cattle fattening projects at his farm and who is not worthy to make him lose his farm in any condition of defaulting the loan* ***(Participant 7; Quote 18).***

5.5.1.9 Negative social capital

Social capital plays a very important role in sustainable microfinance lending. This is because it complements or in extreme cases compliment physical collateral which might be needed by the MFIs for one to access a loan (Tahmasebi & Askaribezayeh, 2021). Social capital helps in group formation and group lending, which is the creation of groups that are organised, owned, controlled and operated by members based on the solidarity, reciprocity, common interest and resource pooling (Kumar, 2012:1). Participant 1 indicated that negative social capital was one of the factors affecting smallholder farmers when accessing MFI finance:

> *The rule of the MFI is that is one member of the group, say a group of five like ours fail to repay back the loan, the other four group members will repay back. There is one farmer in my group for example, who failed to repay the loan in full and we have to repay back the MFI loan for him. Up to now we never got our money back from the person, who is however not our group part anymore. This makes us to lose trust in each other and affected the strength of ties in the group, thus we are forced to keep loans at minimal levels so as not to have problems in repaying back the loans for a member in the event of default.* ***(Participant 1; Quote 4).***

5.5.1.10 Availability of collateral

MFIs still require the farmers to pledge collateral in form of stock book for the cattle, agricultural equipment, rural houses or other assets they may have depending on the size of the loan. Lack of physical collateral was cited as one of the factors affecting smallholder farmers when accessing MFI loans. This was cited in the following excerpts:

> *The MFIs require one's stock book on initial cattle farming loan and on a repeat loan. The amount of loan is determined by the number of cattle in the stock book and physically on the ground. The number of cattle thus determines if one must increase the loan amount or not.* ***(Participant 3; Quote 4) and,***

> *The MFI requires us to be in groups for us to access loans for the first time and to access more MFI loans. The MFIs require a cattle famer to have at least five cattle, in addition to be in a group of three to five members. The amount of loan one is given is determined by the total number of cattle one have in the stock book. If one has said have twenty cattle, he can increase his or her loan amount to the loan amount pegged for a farmer owning twenty cattle, thus if a farmer have ten cattle, it will be difficult to increase the loan to the twenty cattle herd peg or level because it is the total number of cattle one have in the stock book for which determine the level of the loan borrowed or increase* ***(Participant 5; Quote 3).***

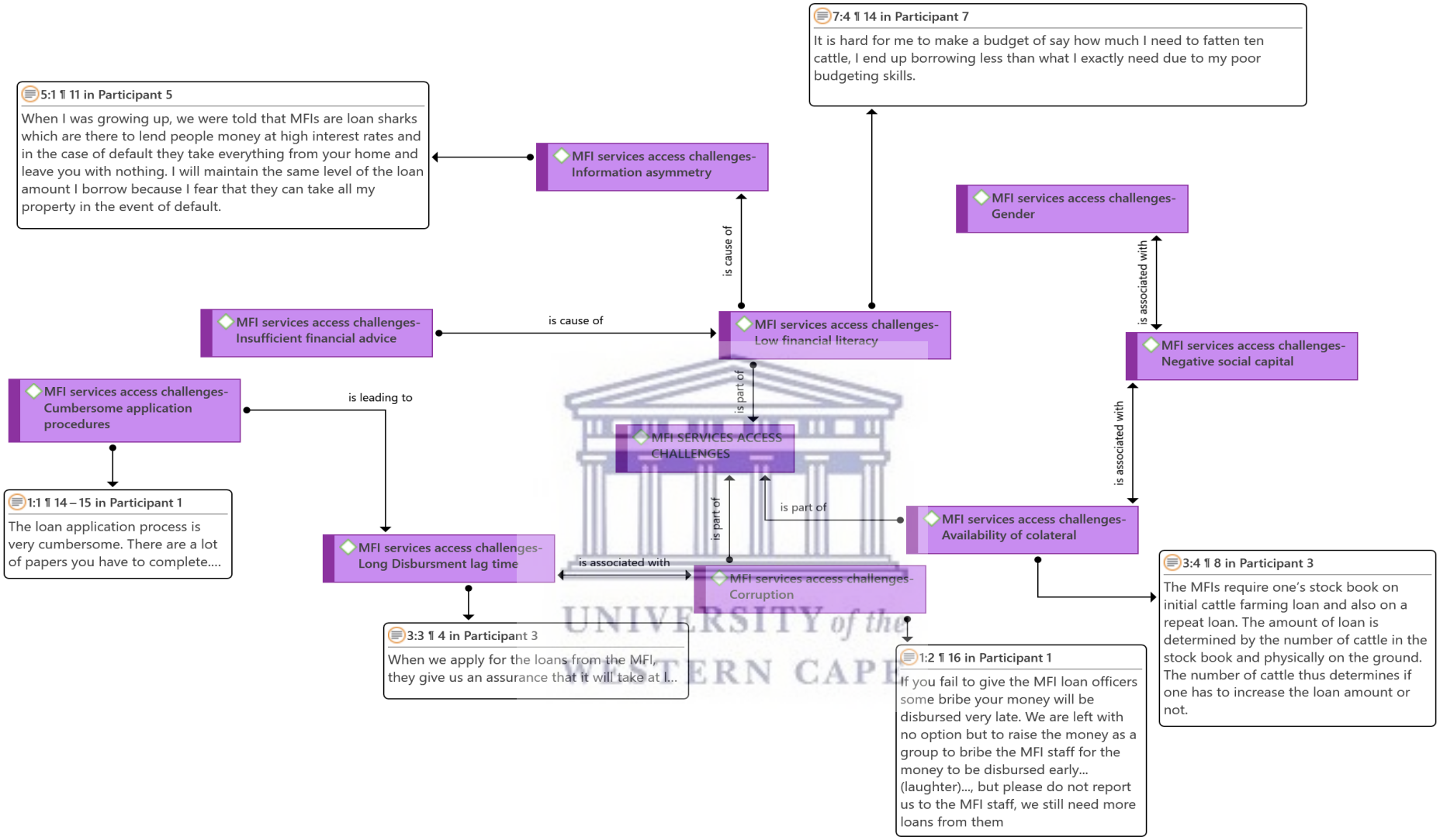

Figure 5.1: Challenges facing smallholder farmers when accessing MFI loans

Source: Research data

5.5.2 Uses and applications of microfinance loans by smallholder farmers

After discussions with smallholder farmers, four main uses of microfinance loans were cited in Masvingo Province. These were:

5.5.2.1 Agricultural inputs

The interviewed smallholder farmers highlighted that the MFI loans enhance them to purchase agricultural inputs in the form of stock feed, salt, vaccines and potash. They emphasised that the loans enhance then to adopt new production technologies for their farming. Such uses were cited in the following excerpts that were proffered by the interviewed smallholder farmers:

> *Subsistence cattle farming are very much different from cattle pen fattening. With subsistence cattle farming the cattle are sent to the grazing areas and there is no need for any standard feeding. With cattle fattening there is need for modern inputs like stock feeds which most of us smallholder farmers buy from agricultural shops. Cattle fattening thus was not going to be successful without adequate financial resources to buy stock feeds, salt, potash and water supply. MFI loans have contributed 100% in the buying of agricultural inputs for my cattle fattening initiatives* ***(Participant 1; Quote 5),***
>
> *Cattle fattening entails zero grazing. Zero grazing is a system where the cattle are usually kept in the farm and farmers bring the feed and water to the animals. Fattening is usually done for an average of 90 days, which is three months. A cow with say a live weight of 200kgs, consumes 6kgs of stock feed per day, which is 3% of its live weight and 20 litres of water, which is 10% of its live weight. Let's say one is fattening 10 cattle for a period of 90 Days with an average of 200kgs each, holding all other things constant, this means that there is need for 5400kgs of stock feeds for the 90 days of fattening. A 50kg of stock feed currently cost R400 at wholesale price, that means that a farmer need R42 300 to buy stock feeds for the 10 cattle. This is quite a lot of money for a smallholder farmer based in the communal farming area or the new A1 resettlement areas. MFIs have played an instrumental role to provide the much-needed finance to acquire stock feeds which are quite expensive for an average rural farmer* ***(Participant 3; Quote 7) and,***
>
> *Cattle pen fattening requires the cattle undergoing the fattening process to be vaccinated. The vaccinations include vaccination against diseases like anthrax, black leg among others. The MFIs have played a very important role in provide funds vaccinations that are quite expensive for an ordinary farmer to buy using their own source of income* ***(Participant 6; Quote 4).***

5.5.2.2 Value chain financing

Value chain finance (VCF) provides finance at any stage of production. It targets both tight and loose value chain. VCF refers to any or all of the financial services, products, and support services flowing to and/or through a value chain to address the needs and constraints of those involved in that chain, be it a need to access finance, secure sales, procure products, reduce risk and/ or improve efficiency within the chain (Miller, 2017). The smallholder farmers were benefiting from both loose but mainly tight value chain financing from the MFIs. The smallholder farmers indicated that:

> *MFIs play a very important role in linking us, farmers and the market that are the abattoirs. At that start of the fattening cycle, we sign a Memorandum of an Understanding (MOU) with the MFI and the private abattoir, which is mostly Montana and Carswell meat in our case. We are thus assured of a ready market of our cattle produce at the end of the fattening cycle, thus reducing the risk of farmers not finding markets.* ***(Participant 7; Quote 5),***

> *The MFIs are very instrumental in the monitoring of the cattle production process. They work hand in hand with the veterinary extension workers to see if we are doing the right farming practices in order to produce the required quality of beef cattle.* ***(Participant 7; Quote 7) and,***

> *MFI loans are very instrumental in any adhoc issues that may arise during the production process. In the event of an outbreak of diseases for example, MFIs provide us with the finances to purchase the required vaccines.* ***(Participant 8; Quote 3).***

5.5.2.3 Asset Financing

This is an asset finance loan that enables automation of production and improves efficiency. The use of microfinance loans for asset financing by smallholder farmers is shown in the following extracts:

> *When I started these cattle fattening practices in 2015, I used to carry water from the river which was 5km away before I drilled a borehole in 2017. To carry enough water for my cattle, I had to borrow an MFI loan to buy a scotch cart. I was told to find three quotations from local scotch cart producers, the funded the cheapest one, from Masvingo farm Supplies and my scotch cart was delivered at my farm. I paid the loan amount, principal plus interest over a year in four instalments, after every three months fattening cycle end. I surrendered my stock card as collateral for the loan.* ***(Participant 4; Quote 4),***

I accessed an MFI loan which I used buy a wheelbarrow and four 210 litre drums for storing water for my cattle. I repaid the loan in two instalments, with half at the end of the first three months fattening cycle and second one at the end of the second fattening cycle. I however had to pledge a stock card for all my cattle as my collateral to the asset acquisition loan ***(Participant 2; Quote 3) and,***

I was given an MFI loan in 2019 to buy two Herford and Sussex cattle breeds. I was given a loan by MFIB which I repaid in two instalments at the end of two, three months long fattening cycle. The collateral for the loan was the stock book for my cattle herd ***(Participant 8; Quote 5).***

5.5.2.4 Life enhancement

Life enhancement loans help with smoothing expenditure and gives household head freedom to do more for the family (Cwynar et al. 2016). This loan cover short term needs. Use of life enhancement loans in financing education expenses, medical expenses and building was evidenced in the following extracts:

I have benefited much from MFI loans to fund some adhoc medical expenses, especially when there is need to visit private hospitals or specialists in the city. ***(Participant 1; Quote 6) and,***

Figure 5.2 summarises the elements found on uses of microfinance loans by smallholder farmers.

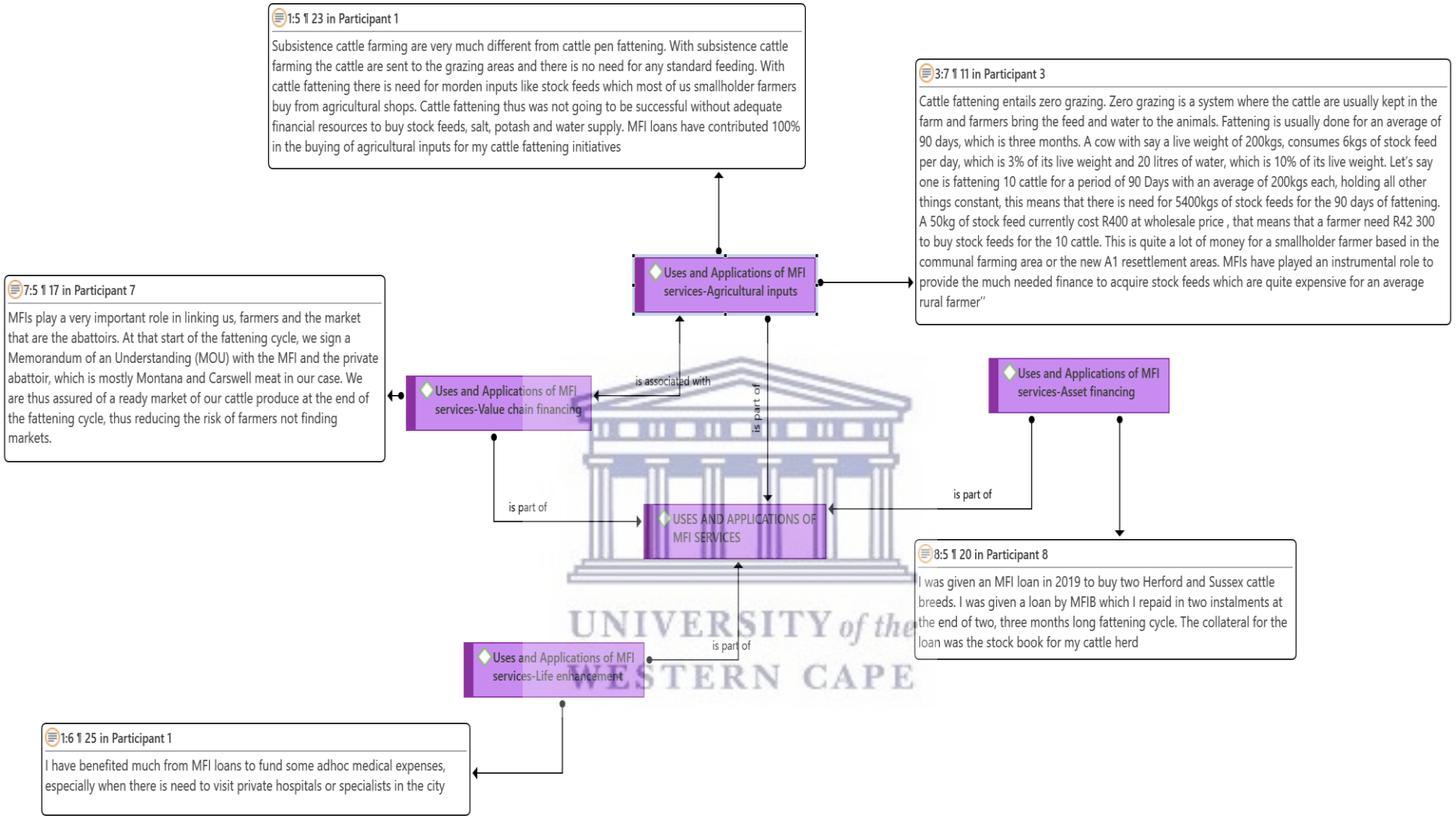

Figure 5.2 : Uses and applications of MFI loans by Smallholder farmers.

Source: Research data

5.5.3 Role of microfinance on smallholder farming and individual sustainability

5.5.3.1 Microfinance and Farm sustainability

The farmers stated that farm sustainability, in their view refers to the ability to adopt new technologies, for their cattle farming activities, entrepreneurial mindset, cattle farming business models and sustainable markets. Farm sustainability sub elements emerged as follows:

5.5.3.1.1 Commercial cattle farming and adoption of new agricultural technology

Literature has shown that microfinance has played an important role in enhancing adoption of new agricultural technology and commercial agriculture in developing countries by smallholder farmers (Abate et al. 2016; Islam et al. 2012). The results of the study highlighted that microfinance has enhanced smallholder farmers to venture in commercial cattle farm and to adopt new agricultural technology. This was evidenced by the following comment by Participant 1:

> *Most of the fattening operations are funded by the MFI, which usually avail fattening funds for period of three months to four months depending on the type of cattle which intend to be fattened. The type of cattle is determined by the number of teeth which the cattle have. Cattle which have from milk teeth to six teeth are usually fattened for a period of three to four months. The cattle which have eight teeth that is full mouth is fattened for not more than three months. The reason being that, normally if a cow with a full mouth is fattened for three months the best grade it can have at the abattoir is Commercial Grade, Grade B and it will never surpass that grade. Cattle with milk teeth to six teeth are fattened for period three months at least to four months because if fattened well for three months, the meat produced usually will fall in Super grade, grade A at the market. Cattle fattening or feeding is done for value addition, some from even Economy grade (last grade) to Commercial grade* ***(Participant 1; Quote 7).***

5.3.1.2 Increased Farm income

An increase in the number of cattle in a cattle farming business indicates a level of farm sustainability as the cattle can be used for a number of purposes in the farm. This can be used to plough back quite a bigger number of cattle in the fattening initiatives and can be sold to cater for adhoc farm expenses. The interviewed smallholder farmers highlighted that there has been an increase in the number of cattle which they breed and fatten from the time they started cattle pen fattening business. This is evidenced by the following comments put forward by Participant 1, 3 and 4:

> *I have seen an increase in the number of cattle that we sent to the market since we started these cattle fattening initiatives. It must be noted that this is not only on a personal basis but at ward level. I keep the records of the cattle which we produce and sell to the market each year as Ward 11, Bikita ever since we started the cattle fattening initiatives. In 2015 we delivered 113 cattle; 2016 we delivered 196 cattle; in 2017 we delivered 335 cattle; in 2018 we delivered 422 cattle and the figure doubled to 850 in 2019 mainly due to increased funding and improvement of cattle rearing skills for the farmers (**Participant 1; Quote 8),***
>
> *When I started cattle pen fattening in 2012, I was fattening and producing an average of two cattle per three months fattening cycle. The number however increased to four in 2014, six in 2016, eight in 2018 and I am now producing an average of twelve to thirteen cattle per every fattening cycle **(Participant 3; Quote 12),***
>
> *I started cattle rearing at a commercial scale in 2014. The numbers of cattle which I am producing are increasing and I am now fattening and producing almost four times the number of cattle I started to fatten in 2014. The other interesting thing is that half of the cattle I fatten now are funded by the MFI and half of them are self-funded. I forecast the cattle farming activities to be self-sustainable by year 2024 **(Participant 4; Quote 2) and,***
>
> *Before I started the cattle fattening initiatives, I was only keeping cattle on a subsistence basis where I would sell maybe one or two cattle per year to the abattoir or to local butcheries, in the event that I wanted to cover emergency needs like school fees for my children, urgent hospital fees. Cattle farming were not a business but rather, I viewed it as a form of wealth which I just had to keep. This has however changed for the better now ever since I joined these MFI funded cattle fattening initiatives. In 2019 for example, I produced about thirty-five cattle which I fattened and sold to the market **(Participant 3; Quote 8).***

5.5.3.1.3 Improved access to adequate and quality feed

Adoption of new agriculture technology in the form of stock feeds, salt, potash and vaccines in the context of cattle farming as well as fertiliser, chemicals in the context of crop farming (Abate et al. 2016). Access to new agricultural technology improves the farm production. The interviewed smallholder farmers acknowledged that MFI loans have enhanced their access to improved access to adequate and quality feed. This was evidenced in the following excerpts:

> *Before the inception of the cattle fattening initiatives, we were used to subsistence farming where cattle graze freely in the paddocks. MFI services and loans had however improved our access to stock feeds which are adequate for our cattle and high-quality stock feeds (**Participant 8; Quote 8) and,***
>
> *I had tried cattle fattening before the MFIs came. To be honest with you I found it very expensive to buy even two bags of salt and a bag of stock feeds. I had to quit. The MFIs had made it easy for me to access funds to acquire adequate and quality feed for my cattle (**Participant 5; Quote 6)***

5.5.3.1.4 Acquisition of improved cattle breeds

Traditionally the smallholder farmers were rearing cattle at subsistence level and were not concerned with the quality of cattle breeds (Barret, 1991). Commercialisation of cattle farming in the form of pen fattening and breeding however requires quality breeds for the farmer to improve the grade of the meat. The following comment by Participant 6 showed that, MFIs have contributed much to acquisition of improved cattle breeds by the farmers:

> *Cattle fattening require cattle which have high propensity to grow and good feed intake and feed conversion ratio. Indigenous breeds like Tuli, Afrikaner and Mashona have proved to have low propensity to grow and poor food intake and low feed intake as well as conversion ratio. Cattle fattening or commercial cattle rearing has enhanced acquisition of improved cattle like Hereford, Aberdeen Angus and Simmental. Indigenous breeds performed poorly for feed intake, daily gains and feed conversion ratio when compared with exotic breed (**Participant 6; Quote 5)**.*

5.5.3.1.5 Farm assets purchase

Section 5.5.2.3 highlighted that the farmers were borrowing from the MFIs to acquire farm assets. Sustainability however is evidenced by the ability of the farmers to use their surplus sales proceeds from the cattle pen fattening to purchase the farm assets. The interviewed participants highlighted that MFI funded cattle pen fattening projects sales proceeds surplus has enhanced improved farm asset acquisition by the smallholder farmers. The participants indicated that:

> *The cattle farming projects were God sent. When I started cattle fattening in 2014 I had very few assets to use at my farm. I used to borrow even an axe to clear my fields as I prepare for ploughing. Five years down the line, a lot of things have however changed in my farm, I managed to acquire a new plough, a harrow, a cultivator, two wheelbarrows, five 210 litre water containers for my cattle, two axes, four shovels, four spades and five buckets for filling water in cattle drinking pens* ***(Participant 5; Quote 7),***

> *The good thing about commercialising cattle farming which was brought about was that we can now manage to have surplus financial resources which we get from the beef cattle sales proceeds, which we used not to get when we were pure subsistence farmers. I can say I have managed to use the surplus proceeds from the cattle sales to acquire a scotch cart, two ploughs, a peanut butter making machine, a maize machine Sheller, cultivators and ten draught animals* ***(Participant 1; Quote 11) and,***

> *There are a number of assets that I bought using my cattle farming sales proceeds. These include a cultivator, hoes, a harrow, two ploughs and a scotch cart. One of the big things I managed to acquire was drilling a borehole. I saved about two years in 2015 and 2016 and by January 2017; I managed to drill a borehole*5.5.3.1.6 Increased access to cattle vaccines

Increased access to veterinary services in cattle pen fattening and breeding is a sign of farm sustainability as there is little or no use of vaccines in subsistence cattle rearing. Smallholder farmers indicated that MFIs have enhanced increased access to vaccines and veterinary services of extension workers. This was evidenced by the following extracts:

> *It is a bit hard for a lot of me to buy enough vaccines for my cattle before these commercial cattle fattening initiatives. MFI loans have increased access to cattle vaccines for most farmers here* ***(Participant 8; Quote 12) and,***

MFI advisory services were of paramount importance for me to realise the importance of vaccinating both cattle which are on zero grazing and those that are on normal grazing ***(Participant 6; Quote 6)***.

5.5.3.1.6 Improved and expanded cattle housing

Cattle pen fattening involves zero grazing where the cattle are not exposed to any free-range cattle farming. The construction of bigger cattle housing where the cattle can feed, and drink water freely is a sign of farm sustainability. Respondent 7 and 8 indicated that MFI loans have enhanced improved and expanded housing for their cattle:

I had a very small kraal before I started cattle fattening and breeding. Access to MFI services have enhanced me to expand my cattle housing and also to build a good kraal with feeding pens and drinking pens which I use for cattle pen fattening ***(Participant 8; Quote 9) and***

*I found it very hard even to remove mud which affected my cattle especially in the rain season. With the introduction of cattle fattening, I now see the importance of always making sure that the kraal is big enough to house the cattle and is always free from mud so as not to expose my cattle to diseases (****Participant 7; Quote 21)****.*

5.5.3.1.7 Diversification into small livestock

The ability of the farmers to diversify their farm produce represents sustainability. Diversification emerged as a sub key element of farm sustainability as the farmers indicated that they have been able to diversify into other cash generating projects using surplus from cattle sales proceeds. This was evidenced in the following excerpts:

I have managed to save from my cattle sales proceeds, and I started another project of rearing goats, sheep and road runners which I sell to a local hotel at Nyika Growth point and at Chevron hotel in Masvingo. This has helped much as having the two projects, that is the cattle rearing and the small livestock rearing at a commercial scale increased the much-needed farm sustainability on my farm. ***(Participant 1; Quote 12) and,***

Cattle sales proceeds have made a bit of positive changes in my farming. I used to rely only on subsistence crop and cattle farming and keeping a few chicken road runners for household consumption. In 2016 I however started a broiler chicken project for my wife from my cattle

sale's proceeds. To date we are keeping close to 300 broiler chickens per six-week batch and we sell the chickens to surrounding boarding schools mainly Gokomere High School and Zimuto Mission. ***(Participant 7; Quote 17)****.*

5.5.3.1.8 Permanent employees

Subsistence smallholder farmers usually use family labour and do not require any employees. Interviews held with smallholder farmers showed that MFI funded smallholder cattle farming has enhanced the farmers to employ permanent employees for both their cattle farming initiatives and other farming activities like crop farming. This was evidenced by the following excerpt:

I have one permanent employee who is responsible for my cattle fattening activities. We are staying as three families at the farm that is my aunt, my father's young brother and me. In addition to the employee for my cattle farming activities, the three of us have one other permanent employee who is responsible for herding all the other cattle which are not part of my fattening activities. I am the one who detail the duties and responsibilities of the employee responsible for the cattle fattening side, problems are however there on the other employee who is responsible for all the other cattle, which belong to the three of us ***(Participant 9; Quote 7).***

5.5.3.1.9 Improved access to markets

Subsistence cattle rearing mainly depend on the local rural market (Munyoro et al. 2018). Cattle pen fattening has increased the number of cattle being produced for commercial purposes by the smallholder farmers. Farm sustainability has been enhanced through improved access to guaranteed markets as most of the smallholder farmers are operating in tight value chains. Participant 1 and 4 explained:

*The good thing with these MFI funded cattle farming initiatives is that we are assured of a ready market. The MFI sign a memorandum of understanding with the private abattoirs, mainly Montana meats and Sabi meats and these companies provide transport and buy all our cattle at the end of each fattening cycle. The MFI also negotiate good prices and grades for us with the buyers (****Participant 1; Quote 13) and,***

*An assurance of a ready market give me the zeal to keep more cattle as there is no risk for not finding a market or buyers for my cattle (****Participant 4; Quote 3).***

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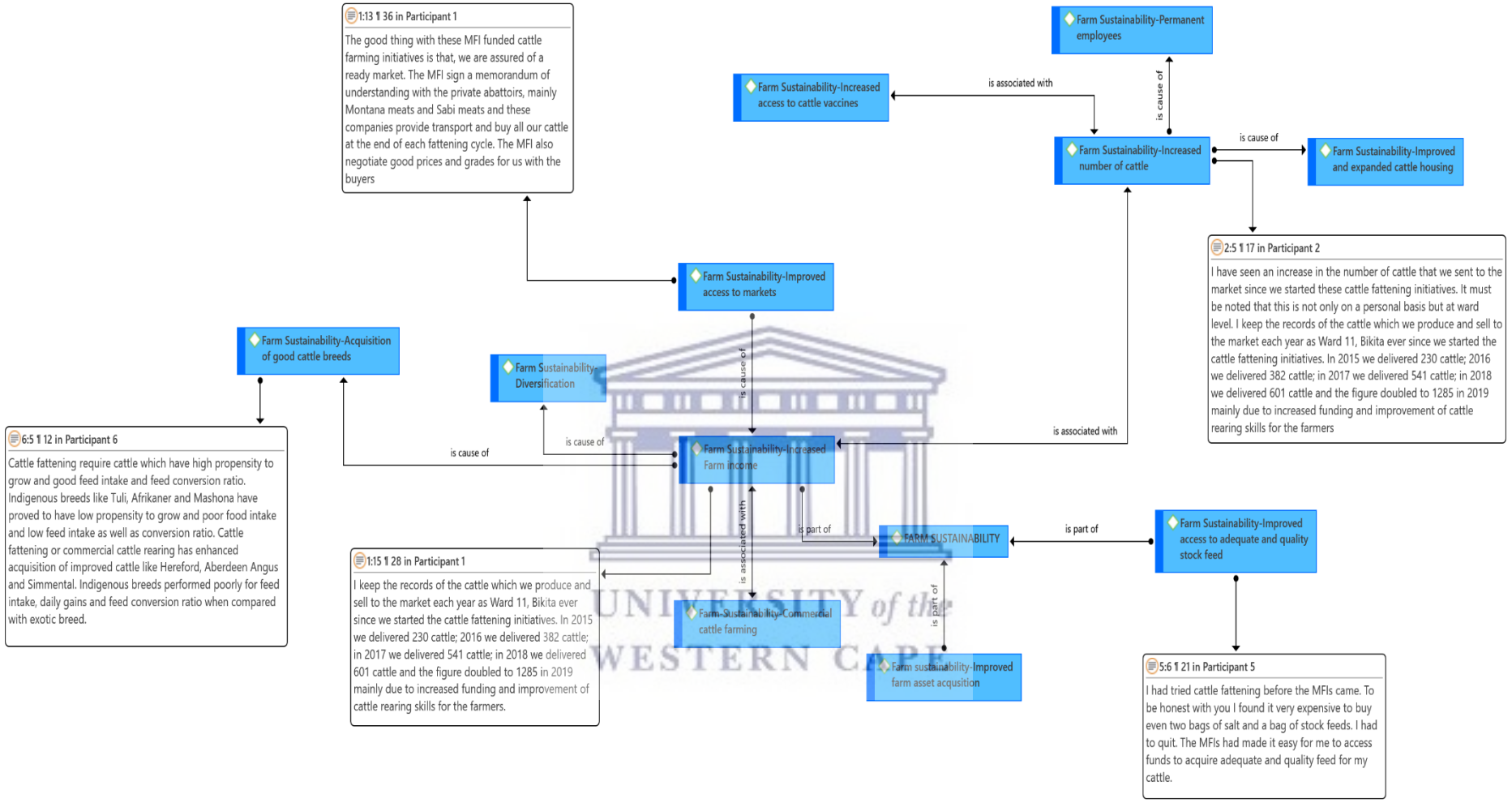

Figure 5.3: Microfinance and Farm sustainability

Source: Research data

5.5.3.2 Farm Sustainability Challenges

The research results revealed that despite the positive role that was being played microfinance in enhancing smallholder farmers sustainability in rural Zimbabwe, there were farm sustainability challenges which were still apparent in their farming activities. The key to this challenge being the farmers being risk averse to move out of the MFI driven cattle farming value chain, into selling their own cattle or retailing their beef and beef products. Farm sustainability challenges sub elements emerged as follows:

5.5.3.2.1 Smallholder farmers are risk averse to go into retailing of beef and beef products

The interviewed farmers were asked a probing question on whether they had plans to open their own butcheries and sell their meat directly to consumers. The interviewed participants showed that they were risk averse to venture into retailing of their own beef and beef products citing the following reasons, poor rural market for beef; the need for reliable refrigeration; the need to set up the butcheries in town, where high competition exists among others. This was evidenced by the following excerpts:

> *You know what my brother, retailing of meat and meat products is a capital-intensive business. There will be need for a lucrative location, obvious in town, because here in the rural areas, there is no culture of buying meat in butcheries, as people can just kill their goats, chickens and eat whenever they want meat. There is also need for cold rooms and very reliable fridges so the meat will not go bad. Electricity is also a major problem in the urban areas; thus our meat can go bad at any time. The level of competition is also very high in towns, there are places that have made a name and it will be hard to compete them out of business, imagine us competing with Hillside butcheries, that will be a waste of time* ***(Participant 7; Quote 10) and.***

> *It is our goal in a year or two to also open our own butchery in Masvingo Town, brand our own meat and sell the meat to the customers direct, rather than going through the abattoir. We really feel like we are losing a lot of money because of the distribution channel we are using. We are aware of the risk involved, especially handling the issue of competition when it comes to retailing of meat products, but we intend to start it at a very small scale, that is say half of our meat produce will be going to Montana and half will be going to our butchery to balance the risks. Our greatest marketing tool will be to sell the best meat in town, targeting high end clientele to enhance viral marketing* ***(Participant 5; Quote 5).***

In addition, the interviewed participants showed that they were risk averse to move out of the MFI driven cattle farming value chain and start their own initiatives of selling their beef and beef products. The responses which emerged from the interviews showed that this is because some smallholder farmers were generally comfortable and content with staying in the MFI organised value chain, thus had no zeal to grow, which on its own raises questions when it comes to sustainability of the farmers. The interviewed participant showed that they did not want to retail their own meat because (1) they were satisfied with prices they were getting from abattoirs and (2) they wanted to focus on primary production of beef. This is evidenced by the following comment by Participant 7:

> *I think we need to be content with what we are now, we are producers and other people are retailers. I have been producing beef for some time now, selling it to Montana meats. I am good with the prices I am getting from Montana. I feel there is need for me to grow my production base, which is the number of cattle, I produce, quality of the cattle breed and meat. I also need to venture into breeding our cattle. My thinking is that I need to improve what I am doing now, primary production of beef and leave the retailing to the retailers (**Participant 7; Quote 9).***

5.5.3.2.2 Farmers using own funds for capital expenditure

Another sustainability challenge which emanated from the interviews was that of farmers using their own funds to fund capital expenditure related expenses for the cattle farming initiatives like drilling of boreholes (permanent source of water) and construction of cattle housing among others. It must be noted that, interviews with MFI representatives showed that the two aspects were a prerequisite and specific requirement for farmers to access MFI loans for funding their cattle farming. This means that those farmers who cannot fund construction of permanent source of water are excluded from the MFI services. The smallholder farmers were asked how they managed to construct their permanent source of water. Comment by Participant 8 was as shown below:

> *I use a borehole as a source of water for my cattle. When I started cattle fattening in 2015, I used to use a scotch cart to carry water from Nyamaunga river, which is about 5 kilometres from my farm. I did that say for two years. In 2017, I raised R11 000 intending to drill a borehole, but it was not enough since the borehole drilling company needed R23 000. My son who works as a plumber in South Africa sent me R12 000 beginning of March 2017 which I used to drill the borehole you are seeing there **(Participant 8; Quote 23).***

5.3.2.3 The need for MFIs to understand smallholder farming operations

Smallholder farmers also felt that there was need for MFIs to take time to understand the smallholder cattle farming operations and provide services that are tailor made and lead to full sustainability of smallholder farmers. The smallholder farmers were asked whether they preferred banks or MFIs to fund their cattle farming operations. Participant 1 reiterated the need for MFIs to understand the smallholder cattle farming operations in the following comment:

> *I prefer to also access finance from banks to finance my cattle farming entity because, I feel like I need more money than what I get from MFIs because I am growing. Banks however, view cattle as a risk farming business and their application procedures are also length and cumbersome. As for MFIs, yes, they are funding my business and they have managed to somehow contribute to where I am today, but my experience and skills also played a bigger role. I have a strong feeling that MFIs just want to make profit themselves and they do not care whether, I make profit or not. MFIs do not give themselves time to understand our farming operations* ***(Participant 1; Quote 10).***

The summary for farm sustainability challenges is shown in Figure 5.4

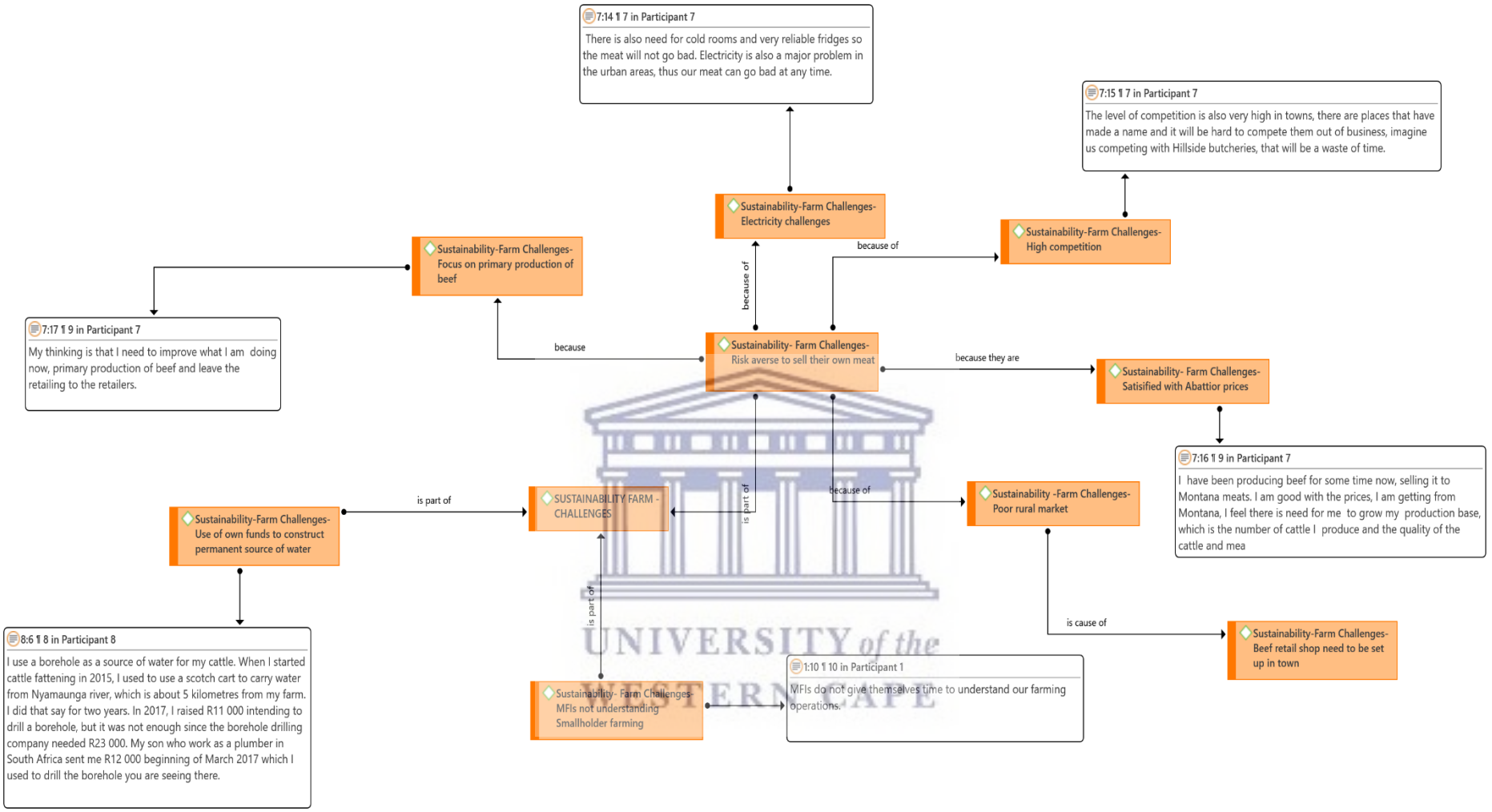

Figure 5.4: Farm Sustainability challenges

Source: Research data

5.5.3.3 Personal sustainability

Personal sustainability refers to the farmer's ability to maintain household stability and the general improvement of the farmer's household income and quality of life (Ariful et al. 2017). Personal sustainability elements which emerged from the interviews with smallholder farmers are as follows:

5.5.3.3.1 Improved household income and savings

It is key for surplus produce and sale proceeds from the farming activities to cascade into the household, improve the household income and savings. The interviewed participants highlighted that MFI funded cattle farming projects have generally enhanced their personal sustainability through increased and improved household income. The farmers highlighted that this is evidenced mainly by improvement in their consumption patterns and savings. The farmers highlighted the following comments:

> *There has been an increase in household income as evidenced by improved consumption patterns in most households which are MFI beneficiaries. In my household to be specific it was very hard for me to eat a balanced diet. I can now afford to give my family three times a day that is breakfast, lunch and supper* ***(Participant 6; Quote 28) and,***
>
> *.*
>
> *There has been an increase in savings in my household. We managed to group ourselves into ten people and formed a Rotating Savings Club Association, ROSCA, usually referred to as 'Mukando' in Shona. All the members are beneficiaries of MFI cattle farming initiatives. We contribute R500 each per month which we give to one person and rotate for 10 months until everyone receives his or her own share* ***(Participant 7, Quote 18)****.*

5.5.3.3.2 Improved household food security

The farmers interviewed highlighted that the MFI funded cattle farming had improved their personal sustainability as evidence by improved household food security both in the aspect of food accessibility and food availability. The following comments were given by the farmers:

> *There has generally been increase in access to food in my household. It used to be very hard for me to buy groceries worth as little as R300 from a local shop or a Supermarket. Right now, after every three months fattening cycle when I sell my cattle. I usually buy household groceries*

for my household which take us for three to four months which will be the end of the other fattening cycle ***(Participant 2; Quote 7) and,***

.

MFI funded cattle fattening initiatives have been very instrumental in enhancing food availability in most households. I can now afford to keep small livestock like road runner and broiler chickens which are not for selling purposes but for household consumption. The cattle sales proceeds have enhanced us as a household to keep small livestock at our homestead thus increasing household food availability ***(Participant 6; Quote 7)****.*

5.5.3.3.3 Increased self-esteem

Self-esteem is one of the most important elements in enhancing personal sustainability. Respondent 2 indicated that being given a leading role in cattle pen fattening groups has played an important role in boosting his self-confidence. Respondent 2 indicated that:

I am currently the Secretary in our MFI borrowing group and the Treasurer in the savings club which also emanate from the MFI borrowing groups. These roles are playing a very important part in improving my self-esteem and confidence. ***(Participant 5; Quote 8)****.*

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5.5.3.3.4 Improved quality of life

Quality of life is a key element in personal sustainability of smallholder farmers. It is the capacity of MFI funded smallholder pen fattening farming activities to improve quality of life of the smallholder farmer, for the farmer to be said to have personal sustainability. The surplus coming from the MFI financed smallholder pen fattening farming activities is contributing to the farmers health, education, water and sanitation needs. This was evidenced in the following excerpts:

*I never thought, I will manage to send a child to a university, ten years back before I joined the cattle fattening projects. In 2018, five years after I started cattle fattening, I managed to send my daughter who had finished her Advanced level at Mukaro to the University of Zimbabwe. She is now in her second year (****Participant 3; Quote 10) and;***

I managed to build a decent Blair toilet and a bathroom in 2017, one year after joining the cattle fattening projects. The one which I had was very old. We had resorted to use the bush system because we could not afford to build a new toilet ***(Participant 7; Quote 19).***

Figure 5.5 summarises how is the microfinance is contributing to personal sustainability.

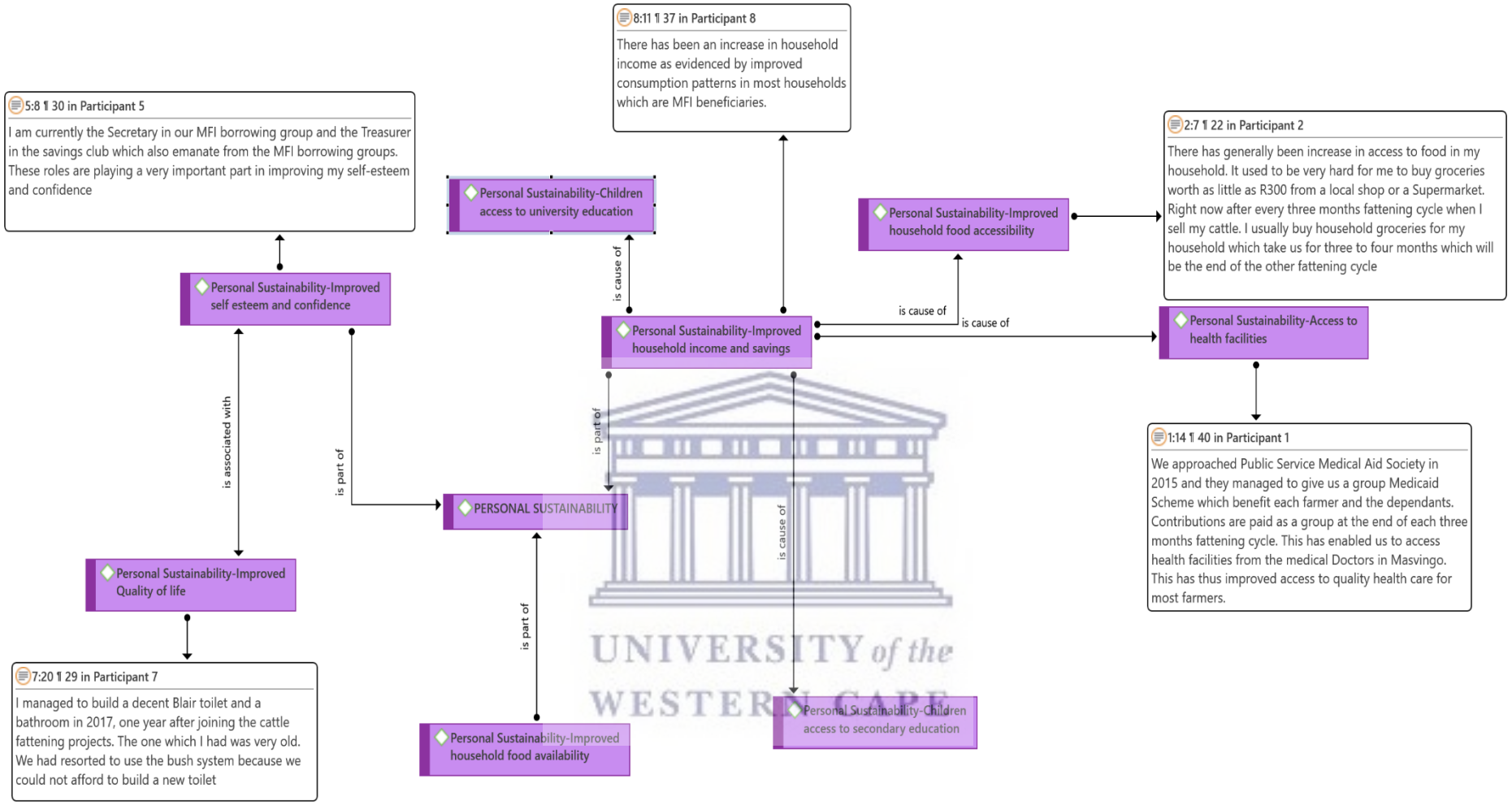


Figure 5.5: Microfinance and Personal sustainability

Source: Research data

5.5.3.4 Personal Sustainability challenges

There are a number of personal sustainability challenges that emerged from the data collected from the eight smallholder farmers that were interviewed in the study. The data emerged from questions which were probed to the farmers, with regard to personal sustainability, in line with the Grameen bank 16 principles, highlighted earlier in chapter 3. The farmers acknowledged the important role of microfinance in creating system-based cattle farming operations, in the form of fattening of cattle for 45 days and selling the fattened cattle to Abattoirs in tight value chains driven by the MFIs. The farmers were probed on basic personal sustainability issues and the results were as follows:

5.5.3.4.1 Vegetable gardens

The farmers were probed in interviews on whether they had vegetable gardens and whether the vegetables were sufficient to feed them and their families. The question was pertinent, because, in microfinancing, Grameen bank, principle number 4 stipulates that, 'We shall grow vegetables all the year round. We shall eat plenty of them and sell the surpluses. The importance of microfinance clients having vegetable gardens at their homesteads is to avoid misappropriation of microfinance loans, to fund basic needs that enhance personal sustainability like buying vegetables. Most of the farmers highlighted that they had no vegetable gardens and those that had vegetable gardens. This was shown by the following excerpts:

> *Water is a problem in this area. The well that I use for my cattle fattening initiatives cannot be used for sustaining both the cattle and a vegetable garden. I usually buy vegetables from other people in the area, who have managed to drill boreholes and ventured into market gardening* ***(Participant 3; Quote 23)****.*
>
> *I do not have a vegetable garden, I buy vegetables from Masvingo town or at the township, there are some people who always sell their vegetables starting from 1 o'clock everyday* ***(Participant 5; Quote 27)*** *and****;***
>
> *I have a vegetable garden, where I grow mainly rape and oriental mustard. The problem however is that I do not focus on the garden much, as most of my time I will be occupied with the cattle fattening activities. The vegetables are thus not enough for us to consume with my family, for even a week continuously. We thus resort to buying vegetables, to supplement the garden* ***(Participant 7; Quote 19)***

5.5.3.4.2 Crop farming

The smallholder farmers were also asked on whether, with the cattle farming initiatives, they are also growing crops at a large scale. The growing of crops is in line with the Grameen bank principle number 5, that 'During the plantation season, we shall plant as many seedlings as possible'. Participant 1 and 5 highlighted that, focus on commercial smallholder cattle farming has negatively affected crop farming:

> *I feel, I am now putting more focus on cattle fattening activities, and this is affecting crop farming. Imagine, in the year 2019, I did not even manage to grow maize that was enough to feed my family up to the next season* ***(Participant 1; Quote 32)*** *and.*

> *'I used to grow drought resistant crops like raphoko, sorghum and millet. These crops were very good, because in the event that there was less rain and maize crop does not do well, they can be used as mealie- meal. The situation is however different, because these cattle fattening activities are taking my time, and I am now focusing more on growing maize enough to feed my family and rearing cattle on a commercial and subsistence basis* ***(Participant 5; Quote 29)****.*

5.5.3.4.3 Sanitation and Houses

The eight smallholder farmers that were interviewed in the study were probed on whether they had good sanitation facilities at their homesteads, as well as good houses. Sanitation is a measure of personal sustainability of MFI customers, because as put forward in the Grameen bank principles, number 9, 'MFI customers shall build pit latrines. Good houses is also a measure of personal sustainability as highlighted in Grameen bank 16 principles number 3, 'We shall not live in dilapidated houses. We shall repair our houses and work towards constructing new houses at the earliest'. Participant 7, earlier on, highlighted the role of MFIs in building decent a Blair toilet at her home. Participant 2, 5 and 8 however stated that, despite transformation of their cattle farming initiatives from adhoc farming to system-based cattle rearing, they had no proper sanitation facilities at their homesteads. This was shown by the following excerpts:

> *The MFI focus more on commercialising cattle farming initiatives but ignore our welfare with regards to good houses and proper sanitation facilities* ***(Participant 2; Quote 28)****.*

> *I have not made proper surplus to channel my financial resources to building a good house or to construct a proper Blair toilet. I hope that as time goes on, I will be able to also have a good house from my cattle sale's surplus* ***(Participant 5; Quote 17)*** *and;*

I am still focusing on growing my herd and recouping adequate profits from the cattle fattening initiatives. Building a good a house and a proper latrine is the second on the list. I still have to grow my business, and for now, I use what I have ***(Participant 8; Quote 22)****.*

5.5.3.4.4 Education for children and Health

Education for children and health is also a measure of personal sustainability, basing on what was put forward in literature and also on Grameen bank principle number 7, 'We shall educate our children and ensure that we can earn to pay for their education'. Participant 3 acknowledged earlier on, the role that MFI funded cattle farming initiatives had in provision of surplus finance to send her children to boarding schools, a thing that he could not afford before engaging in cattle fattening and selling of cattle. Participant 1, 5,7 and 8 however highlighted different sentiments with regard to their personal sustainability, in the aspect of education and health.

I have made substantial profits from the cattle fattening activities, ever since I started. The increase in farm income and profits is however not enough for me to either send my children to boarding schools or access private health care ***(Participant 4; Quote 41)****.*

Health care facilities in this village are accessed from the local clinic. The local clinic however does not have medicine. The only thing they do is to prescribe medicines for us and tell us to go and buy the medicine in pharmacies. The prices of medicines in pharmacies is however on the high side for me ***(Participant 6; Quote 38)****;*

I do not see the importance of sending my child to school. That is a waste of money. There are no jobs in Zimbabwe. It's better for me to start teaching him some farming skills instead ***(Participant 7; Quote 28)*** *and;*

Accessing private health care facilities, still remain a dream to us ***(Participant 8; Quote 24).***

5.6 SUMMARY OF KEY SUSTAINABILITY FINDINGS

This chapter presented the results of the research. The chapter started by providing justification for the use of investigative research questions, which was the basis for data analysis. Despite farm sustainability challenges related to (1) smallholder farmers being risk averse to go into retailing of their own meat, (2) Farmers using their own funds for capital

expenditure. the study evidenced the positive role of microfinance in contributing to farm sustainability through, (1) smallholder farmers adopted new agricultural technology, (2) increased farm income, (3) improved access to adequate and quality cattle feed; (4) acquisition of improved cattle breeds; (5) improved farm asset acquisition; (6) increased access to cattle vaccines; (7) improved and expanded cattle housing; (8) diversification (9) permanent employees and (10) improved access to markets.

With regards to personal sustainability, microfinance has played an important role in enhancing personal sustainability in the following aspects (1) improved household income and savings, improved self-esteem, improved household food security and improved quality of life. Probing of participants on their personal sustainability challenges showed that, they were having challenges in (1) maintaining gardens (2) balancing crop and cattle farming (3) houses and sanitation as well as (4) education and health. It must however be noted that, in microfinance it is of paramount importance to focus on both customers personal and business sustainability.

5.7 TOWARDS DEVELOPING THE SMALLHOLDER FARMING SUSTAINABILITY PATHWAY FRAMEWORK

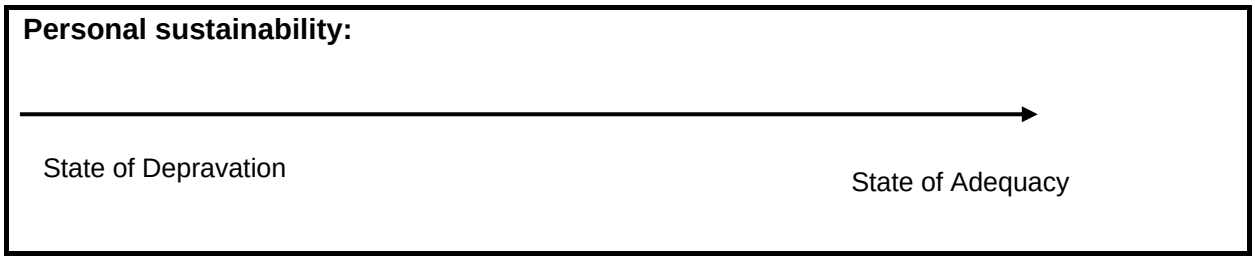
The overall aim of this research was to establish the role of microfinance in sustainability of smallholder farmers in rural Zimbabwe. The conceptual framework formulated in chapter 3, articulated that sustainability of smallholder farmers can be attained, in a situation where the smallholder farmer has attained both (1) Personal sustainability and (2) Farm sustainability, as shown below:

Sustainability = Personal Sustainability + Farm Sustainability

Source: Researcher's own construct

The data that was collected from the eight smallholder farmers participants, and analysed earlier in the chapter showed that, in the event that microfinance has contributed to smallholder farmers personal sustainability, they move from 'state of depravation' to 'state of adequacy'. In the context of the current study, the state of depravation is when the smallholder farmer does not have enough food, low or no household income and savings has poor sanitation and access to water for example no Blair toilets, no access to good health care, it is hard for the smallholder farmer to send children to school, no decent housing among others. State of adequacy on the other hand is when there is household food security, that is both food availability and food accessibility, decent housing, Blair toilets, access to clean water, access

to decent health care, household income and savings and farmers will be affording to send children to school. Personal sustainability is diagrammatically shown below:



Source: Researcher's Own Construct

Drawing from the data analysis done earlier in this chapter, in context of this study, farm sustainability was conceptualised as a situation where the smallholder farmer moves from farming based on adhoc operations to where they adopt system-based operations. In the context of smallholder cattle farming, adhoc operations is when the farmers will be practicing subsistence cattle farming whilst system-based operations are when the smallholder farmers now practice cattle farming systems like cattle fattening say for 45 days, 60 days; breeding; stock feed farming among others. Farm sustainability is diagrammatically shown below:

Source: Researcher's Own Construct

Basing on the discussions above, of how both personal sustainability and farm sustainability were conceptualised using data analysed and presented earlier in the current chapter, the relationships were developed further into the sustainability quadrant, that have four quadrants, namely not sustainable, self-sufficiency, sustainability and questionable sustainability. Figure 5.6 below show the '***Smallholder Farming Sustainability Quadrant'***.

5.7.1 Smallholder Farming Sustainability Quadrant

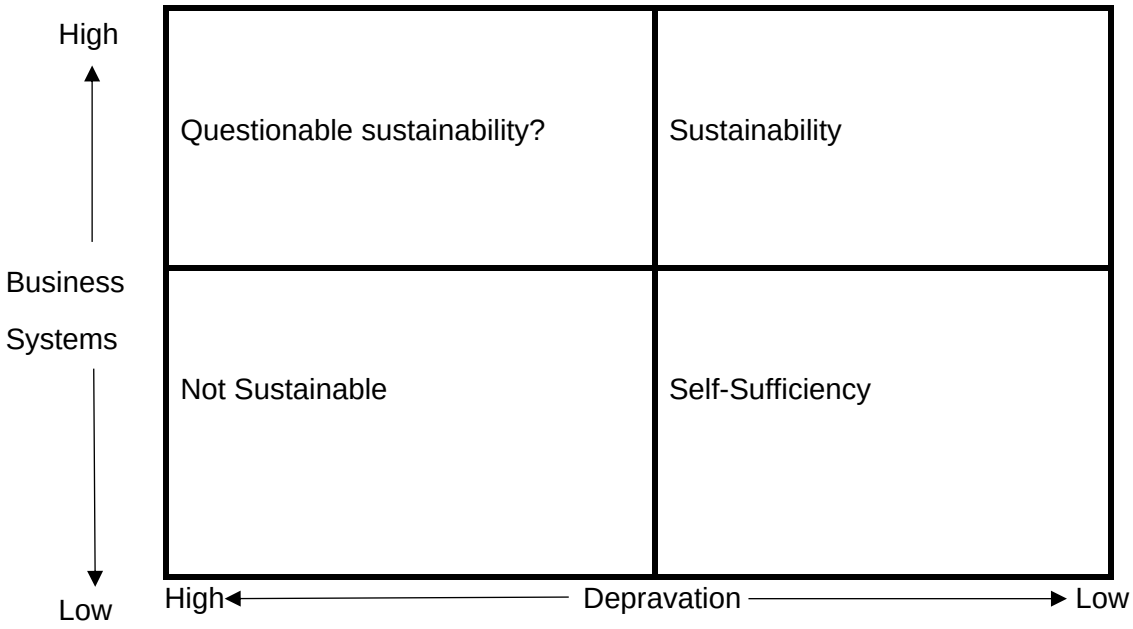


Figure 5.6: Smallholder farmers sustainability quadrant.
Source: Researcher's Own Construct

5.7.1.1 Not sustainable

The 'not sustainable' quadrant houses those smallholder farmers that have high depravation and who conduct smallholder farming using adhoc operations or at subsistence level. The farmers at this level have low personal sustainability and low farm sustainability.

5.7.1.2 Self sufficiency

The 'self-sufficiency' quadrant houses those smallholder farmers that have low depravation, that is those who would have reached substantial level of personal sustainability, but are still conducting smallholder farming using adhoc operations, meaning low farm sustainability.

5.7.1.3 Questionable sustainability

In the 'questionable sustainability' quadrant, there are those farmers who have adopted systems-based operations, hence high farm sustainability but have high depravation, hence low personal sustainability. In microfinance, it is of paramount importance for 'clients' to achieve substantial level of personal sustainability before farm sustainability is achieved. In the event that personal sustainability is achieved from surpluses from microfinance driven

systems-based operations, the MFIs will be practicing ‘traditional banking’ instead of ‘microfinancing’, in accordance with Grameen bank 16 principles.

5.7.1.4 Sustainability

The ‘sustainability quadrant’ is the most desirable quadrant for the smallholder farmers to be categorised in. In this quadrant, the smallholder farmer is self-sufficient, low depravation and will also be using system-based operations in smallholder farming activities. The farmer has achieved both personal and farm sustainability. Drawing from the data on farm and personal sustainability, uses of microfinance loans presented earlier in this chapter, Table 1 show the Quadrants which the farmers can be categorised in:

Table 5.4: Summary of Smallholder farmers' Sustainability Results.

	FARM SUSTAINABILITY CONSTRUCTS					PERSONAL SUSTAINABILITY CONSTRUCTS					
PARTICIPANT	**Quality Feed/Inputs**	**Asset Purchase**	**Markets**	**Vaccines**	**Cattle Housing**	**Education**	**Household income**	**Food security**	**Houses and Sanitation**	**Health**	**Sustainability Quadrant**
Participant 1	Yes	Yes	Yes					No		No	**Questionable Sustainability**
Participant 2		Yes						Yes	No		**Questionable Sustainability**
Participant 3	Yes		Yes			Yes		No			**Questionable Sustainability**
Participant 4		Yes	Yes			No					**Questionable Sustainability**
Participant 5	Yes	Yes						No		No	**Questionable Sustainability**
Participant 6	Yes			Yes			Yes	Yes	No	Yes	**Questionable Sustainability**
Participant 7	Yes		Yes		Yes	No	Yes		Yes	No	**Questionable Sustainability**
Participant 8	Yes	Yes	Yes	Yes	Yes			No	No	No	**Questionable Sustainability**

Source: Researcher's Own Construct

Key

Yes-Farm sustainability through creation of system-based farming operations

Yes-Personal Sustainability through surplus from farm produce sales

No- State of Depravation-No MFI contribution to direct personal sustainability

5.7.1.5 Justification of the Questionable sustainability

Drawing from the data presented in the cross-case analysis section and summary of farmers' sustainability matrix in Table 5.4, the smallholder farmers fall under the questionable sustainability quadrant. The reason being that all the farmers indicated forms of personal sustainability challenges or state of depravation in personal sustainability parameters highlighted in the table. This show that, the MFIs focus on creating systems-based operations for the smallholder farmers but do not focus much on what their personal sustainability is like at the point of borrowing.

Whilst the study acknowledges the role that is being played by microfinance funded cattle farming initiatives profits, in enhancing personal sustainability, it must be noted that, the MFIs need to practice 'microfinance' as recommended in the Grameen bank 16 principles of microfinancing. Most of the principles are being violated as farmers mentioned sustainability challenges in most of the Grameen principles aspects probed. Creating good business models for the farmers that enhance farm sustainability, whilst ignoring the farmers' personal sustainability is a form of commercial banking and not microfinance.

Having seen that smallholder farmers in Zimbabwe fall under the questionable sustainability, where MFIs have created system-based cattle farming operations but ignored the smallholder farmers sustainability, this study put forward the *'Smallholder Farming Sustainability Pathway Framework'.* As evidenced from the presentation of data in this chapter the sustainability of smallholder farmers is pinned to different proponents which are encompassed in the study model, which highlights the improved framework to the model and propositions suggested in chapter 3.

5.7.1.6 Do we have any farmers in the other three quadrants?

There were eight farmers who were interviewed in the study. All the eight farmers fall in the questionable sustainability quadrant. The reason being that the farmers have adopted system-based operations, that is the fattening of cattle for 45 days and selling the cattle to Montana meats for all the farmers, as well as breeding. None of the farmers however, mentioned that microfinance institutions made initiatives to improve their personal sustainability or self-sufficiency, but rather personal sustainability was achieved using surpluses from microfinance funded smallholder farming. MFIs, thus focused more on enhancing the smallholder farmers

to adopt system-based operations, hence farm sustainability but ignoring their personal sustainability.

5.7.2 Smallholder Farming Sustainability Pathway Framework

The overall aim of the study was to develop a 'smallholder farming sustainability pathway framework' for smallholder farmers in rural Zimbabwe, that enhance both personal and farm sustainability. The study's main research question was '*Given the unique characteristics of smallholder farming in Zimbabwe, to what extent is microfinance a partner of sustainability for rural cattle farmers?'.* Consequently, in line with the main research question, Figure 5.6 presents the Smallholder Farming Sustainability Pathway model, that is reflective of microfinance interventions on enhancing smallholder farmers' personal and farm sustainability in rural Zimbabwe.

This study established the role of microfinance on sustainability of smallholder farmers in rural Zimbabwe, that is both farm sustainability and personal sustainability. In an attempt to create sustainable smallholder farming that encompass both personal and farm sustainability, the current study suggested the 'Smallholder farming Sustainability pathway framework that consist of five components namely (1) Integrated MFI Intervention; (2) Self -sufficiency; (3) Business modelling; (4) Entrepreneurship Skills and (5) Sustainable smallholder farming. The pathway model developed for the current study is shown in Figure 5.6.

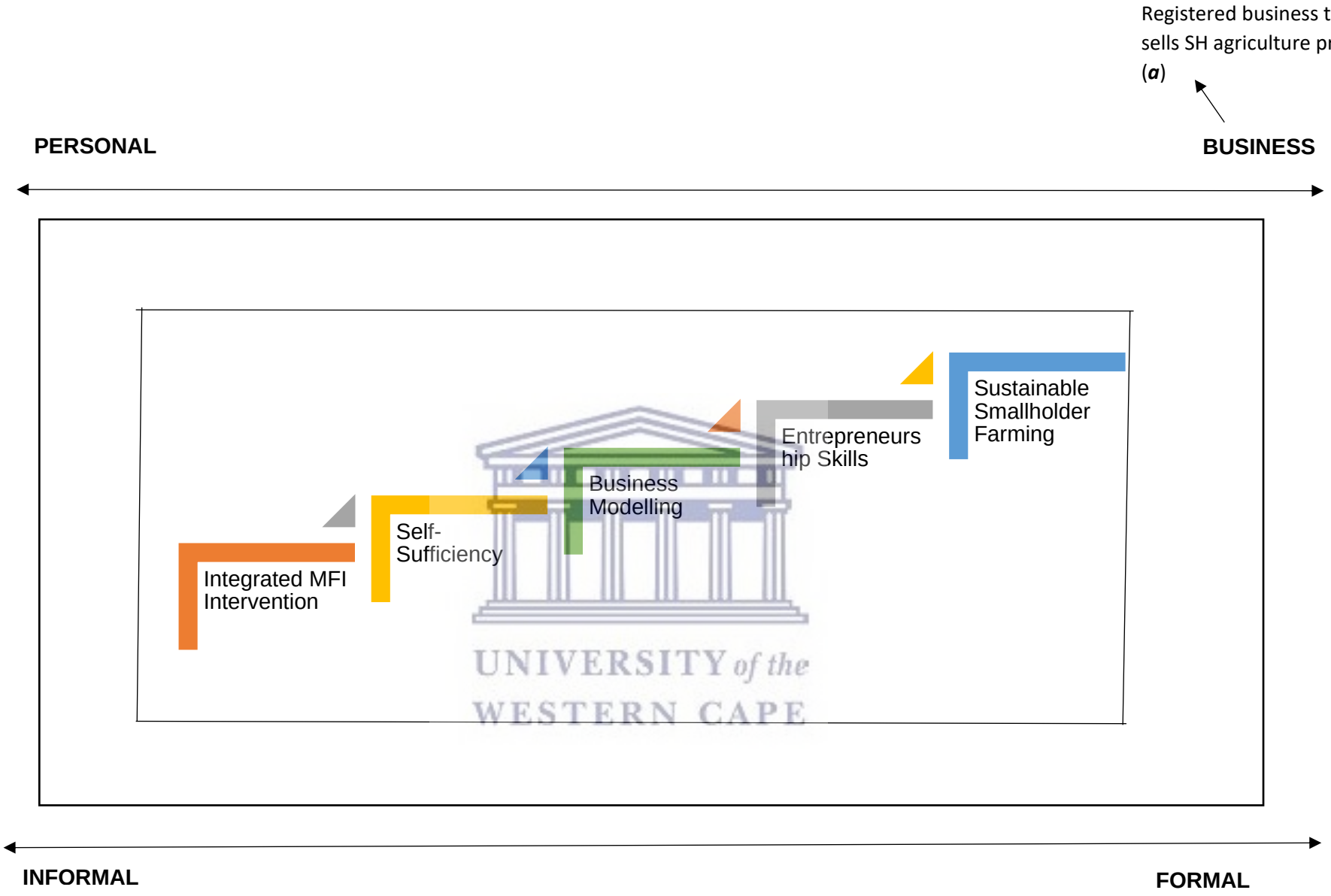


Figure 5.7: Smallholder Farming Sustainability Pathway Framework. **Source**: Researcher Own Construct.

5.7.2.1 Smallholder Farming Sustainability Pathway Framework components

The smallholder farmers pathway framework suggested in the current study, suggests that farmers do have a pathway the have to follow, for them to achieve sustainability. The framework can help the farmers to achieve full sustainability and smallholder farmers sustainability is not achieved if each of the four steps suggested in the framework is not followed.

5.7.2.1.1 Integrated Microfinance Intervention

The first step is for MFIs to provide integrated Microfinance services. This study recommends integrated microfinance, where the MFIs offer both financial and non-financial services to smallholder farmers. The non-financial services need to include training, enterprise development services.

5.7.2.1.2 Self sufficiency

The second step is for MFIs to ensure smallholder farmers self-sufficiency. The state of adequacy in the current study was derived from the surpluses of cattle sales proceeds. The farmers highlighted a number of personal sustainability challenges that are not being addressed by the MFIs that include health, housing, sanitation, balancing with crop farming, lack of vegetable gardens. This research argues that the situation where personal sustainability is derived from successful MFI funded business projects, as is the case in this study, is traditional commercial banking and not microfinance. Microfinances need to enhance personal sustainability in line with the Grameen bank 16 principles of microfinancing.

5.7.2.1.3 Business Modelling

The third step is for MFIs to enhance system-based smallholder farming operations. Business modelling entails MFIs enhancing smallholder farmers moving from adhoc operations to system-based operations. Study results showed that MFIs played an important role in commercialising smallholder cattle farming, thereby adopting system-based operations through adoption of new agricultural technology, improved cattle breeds, access to markets, access to vaccines, improved farm asset acquisition and organised value chain. System based operations are being enhanced by the effective utilisation of MFI loans by smallholder farmers, through value chain financing, asset acquisition and purchase of agricultural inputs.

5.7.2.1.4 Entrepreneurship skills

The fourth step is for MFIs to provide Entrepreneurship skills to smallholder farmers. The role of MFIs needs to include enterprise development in smallholder farmers, which is cultivated by instilling develop entrepreneurship skills. Entrepreneurship skills in the current study might entail farmers registering their retail meat businesses to sell their meat on their own locally in Zimbabwe or for export. In this study the farmers lack entrepreneurial mindset as they remain stuck in microfinance driven value chains rather than moving out of the value chains, create their own independent markets for their farm produce and achieve self-sustainability.

Entrepreneurial skills enhance farmers to be agripreneurs. Agripreneurs need to be able to identify opportunities and seize them, must look for better ways to organise their farms, must try new crops and cultivars, better animals, and alternative technologies to increase productivity, diversify production, reduce risk and to increase profits. Moreover, they have to be more market- oriented and learn to take calculated risks to open or create new markets for their products, whilst having the initiative, drive, capacity and ability to take advantage of these opportunities (Munyoro and Chimbari, 2019). Smallholder farming is achieved when the farmer reaches this fourth step.

5.7.2.1.5 Sustainable-Smallholder Farming

Sustainable Smallholder farming= Self Sufficiency + Business Modelling + Entrepreneurial mindset and can be achieved through integrated microfinancing.

5.7.2.1.5.1 Informal vs Formal/ Personal vs Business

The framework, show that smallholder farmers fall in between the category of being informal and where they are formal. In the event that they are informal, the smallholder farming entities will be personal and in the other end when they become formal, they become registered businesses. Microfinance intervention thus pushes smallholder farming from adhoc operations to commercialisation, that is smallholder farming sustainability, where they undertake, system-based cattle farming operations. Entrepreneurship skills shown in the model, however, enhances smallholder farmers to transform their farming operations, not only into system-based operations, but into registering their smallholder farming business and start selling, retailing and marketing their agricultural produce (See point ***a*** in Framework).

5.8 CONCLUSION

The data analysis employed in this thesis was presented and explained in this chapter. Through with-in, cross case analysis and constant comparison the framework for smallholder cattle farmers sustainability was established in the current chapter. Further discussion of the framework and how it relates to existing literature and its implications, are continued in chapter.

CHAPTER 6
DISCUSSION OF FINDINGS, CONCLUSIONS AND IMPLICATIONS

6.1 CHAPTER OVERVIEW

This chapter discusses the findings and major themes that emerged from the data analysis in relation to research questions. The chapter also critically discuss, the '*Smallholder Farming Sustainability Pathway Framework*', in accordance with the aims and objectives, as well as research questions of the study. Furthermore, the theoretical and practical implications of the '*Smallholder Farming Sustainability Pathway Framework*' on the body of knowledge are also discussed. Thereafter, the conclusions and recommendations close this chapter and thesis.

6.2 INTRODUCTION

This chapter communicates the 'Smallholder Farming Sustainability Pathway Model'. As highlighted in the first chapter, review of literature provided the following research gap:

> *The study argues that, in light of the inadequacies of traditional banking in stimulating a sustainable rural agricultural sector, the efficacy of microfinance in stimulating sustainability in the sector is largely unknown. Furthermore, the study argues that there is lack of clear conceptualisation the role of microfinance on smallholder farmers' sustainability.*

Through a review of listed gaps in the literature led to the formulation of the following problem statement:

> *In light of the inadequacies of traditional banking in stimulating a sustainable smallholder agricultural sector, the efficacy of microfinance in stimulating sustainability in the sector is largely unknown.*

Thereafter, the following investigative questions were formulated to address the formulated gaps and research questions:

***IQ1**: What challenges are being faced by smallholder farmers when accessing MFI services?*

***IQ2**: What are the uses and applications of microfinance loans by smallholder farmers?*

IQ3: *How is microfinance contributing to the sustainability of both their farming activities and individually?*

6.3 DISCUSSION OF FINDINGS

6.3.1 MFI loans access challenges

Objective 1 sought to explore the challenges smallholder farmers were facing, when accessing microfinance services. This was based on the pretext that all the participants that were used in the study were smallholder farmers who were receiving microfinance services, for funding their cattle farming activities. The emerging challenges were both MFI related and smallholder farmer specific. The smallholder farmers stipulated that the challenges they were facing when accessing MFI services include: (1) cumbersome application procedures; (2) disbursement lag time; (3) high interest rates; (4) corruption and (5) insufficient financial advice; (6) low financial literacy; (7) information asymmetry, (8) low social capital; (9) gender and (10) availability of collateral.

6.3.1.1 Cumbersome application procedures:

Cumbersome application procedures relating to long application process, vast paperwork that needs to be filled when applying for a loan were mentioned as a challenge the farmers faced when accessing microfinance services. The research results were in line with Mersha and Ayenew, (2018) who also argued that potential borrowers in Ethiopia, needed to form group, hand in application forms, farming plans, and guarantee evidence and these procedures may be too difficult for less educated rural households. In support of that Chandio et al.(2017) asserted that, the cumbersome procedure of getting agricultural passbook from the department of revenue in Pakistan, due to which most of the smallholder farmers lose interest in applying for credit from formal sources, needs to be simplified.

6.3.1.2 Disbursement lag time:

The interviewed smallholder farmers were for the view that the time that the MFIs were taking to disburse loans to them was long. The results were in line with Dziwornu and Anagba (2018) who suggested the timely granting of micro-loans to women entrepreneurs in Ghana to improve participation of women in microfinance programs. Enimu et al. (2017) argues that shorter disbursement lag time of microfinance loans encourages the timely utilisation of loans, and this invariably led to high output and efficiency.

6.3.1.3 Interest rates:

The farmers also mentioned that high interest rates that were being charged by the MFIs on smallholder farming loans were high and not sustainable for them to be profitable, considering their small-scale nature. The results augur well with Jumpah, Osei-Asare and Tetteh (2019) who stated that reduction in the interest rate and expansion of microfinance to very remote areas rather than locations in rural areas is crucial in terms of improving participation. The Jumpah et al (2019) further assert that, high interest on loans, operational costs an4 other charges hinder participation in microcredit programmes and MFIs in their study area were supposed to consider reviewing their interest rates and other charges downward to promote participation.

In support of that Awuah and Addaney (2016) articulated that challenges that the high interest rate increases the cost of the debt, was reducing the uptake of microfinance products. Proponents of microfinance, however, have always argued that MFI high interest rate makes it possible to grow the microfinance industry by expanding outreach in breadth and depth (Diagne & Zeller, 2001; Jumpah et al. 2019; Morduch, 2000; Robinson, 2001).

6.3.1.4 Corruption:

Corruption was also mentioned as one of the challenges faced by smallholder farmers when accessing microfinance services. Literature has detailed corruption relating to some customer service officers requesting bribes from the borrower smallholder farmers under the pretext of shortening the time to get the loan (Mersha & Ayenew, 2018). Microfinance staff, in this study were also found to be demanding bribes from smallholder farmers for quick disbursement of microfinance loans. The current study however, revealed a specific type of corruption which was not documented in literature, of MFI staff placing ghost borrowers in groups, which they use to siphon MFI funds for their own personal purposes.

6.3.1.5 Insufficient financial advice:

The results of this research revealed that the MFI personnel were unfriendly to the clients and do not give enough financial advice for them to make informed borrowing decisions and effective use of microfinance services. The results of the study augur well with Awuah and Addaney (2016) who asserted that MFIs were not offering enough microfinance services to Small and Medium Scale Enterprises (SMEs) in Ghana. Research about financial advisory

services being offered by MFIs and their effectiveness with regards to financial related decisions and utilisation of microfinance services still need to be explored.

6.3.1.6 Low financial literacy:

People with high financial literacy usually find it easier to understand the terms and conditions of MFI loans as well as savings services (Nkundabanyanga, et al. 2014). The interviewed smallholder farmers indicated low financial literacy as a factor that was affecting farmers when accessing microfinance services. The results were in line with Nkundabanyanga, et al. (2014) who articulated that improving financial literacy of smallholder farmers must be matched with favourable interest rates if access to microfinance services is to be enhanced. In support of that, Awuah and Addaney (2016) stated that the MFI clients lack knowledge of interest rates on loans makes it difficult for clients to plan with the loan.

6.3.1.7 Negative Social capital:

Negative social capital which emanates from lack of trust and weak ties in borrowing groups was also mentioned as a challenge smallholder farmer face when accessing microfinance services. Research results corroborates well with Jumpah et al. (2019), who asserted that MFIs should promote group formation in order to improve participation in microfinance programmes and also promote good practices and loan repayment. Group formation should therefore be encouraged in micro-lending. Such groups can also serve as a platform through which inputs can be supplied and technical information on best production practices and training offered to farmers (Jumpah et al. 2019). Assogba et al. (2017) also synergizes for smallholder farmers social capital homogeneity, network connection, level of trust, collective action and the respect for contract had positive significant effect on access to credit.

6.3.1.8 Gender:

Smallholder farmers mentioned that there were facing gender related challenges when accessing microfinance services. The farmers states that the gender related challenges were emanating from the need for the females to consult their husbands before borrowing or increasing a loan. The research results are in line with Jumpah et al. (2019) who suggested that women are often denied basic human rights, individual dignity, economic and educational opportunities, while societal norms and beliefs also create the platform for male dominance in all spheres of life.

Second, the gender challenges emanated from the traditional cultural connotation that a girl child is not entitled to any inheritance from her father were also indicated as the gender related challenges when accessing MFI finance (Jumpah et al. 2019). The research results were in contrary with N'Banan et al. (2020) who stipulated that women farmer were more likely to have access to microfinance credits than their male counterparts in Côte d'Ivoire. This may be ascribed to the fact that, in the study area, women are more involved in food crop production such as vegetable, with a quick rate of return and ready markets for their produce. In support of that, Sarwosri et al. (2016) found that female farmers have a higher rate of loan application approval compared to male farmers.

Mbuba et al. (2018) emphasized that women smallholders have better access to microfinance credits than men smallholders in Kenya. Jumpah et al. (2019) also stipulated that there is a widely held view that the rate of default among female borrowers is relatively lower than their male counterparts and as such lenders will be willing to advance credit to them. Kaboski and Townsend (2012) also asserted that women were better managers of credit compared to their male counterparts who may use loan on unproductive activities such as smoking and drinking.

6.3.1.9 Availability of collateral:

MFIs still require the farmers to pledge collateral in form of stock book for the cattle, agricultural equipment, rural houses or other assets they may have depending on the size of the loan. Lack of physical collateral was cited as one of the factors affecting smallholder farmers when accessing MFI services. Earlier research by Assogba et al. (2017) also reiterated that availability of collateral decreases the likelihood of credit access by 12.4 percent while credit with high interest rates decreases it by 11.7 percent.

Collateral is required for all borrowers by institutional sources of credit and default is that; it can be used to offset the loan if the borrower fails to pay the principal amount of loan and interest satisfactorily under the terms of the loan agreement (Chandio et al. 2017). The availability of collateral is a very important fact that affects the formal credit of the farmers. It has a positive and significant impact on access to formal credit (Chandio et al. 2017).

6.3.2 Uses of microfinance loans by smallholder farmers

The research study probed for the uses and applications of microfinance loans by smallholder farmers. The research results showed that the farmers were using microfinance loans mainly for purchasing agricultural inputs, in fact the bulk of the loans came in form of agricultural inputs. The results augur well with Odhiambo, (2019); Siedek and Piri (2020) and USAID (2015). The research results also revealed that the smallholder farmers were mainly utilising and applying microfinance services for value chain financing and asset financing. USAID (2015) also detailed the use of microfinance loans in financing the value chain activities that ranged from farm input financing, primary production of agricultural products and linking the farmers to the markets.

In this study, research results revealed that life enhancement loans helped with smoothing expenditure and gives household head freedom to do more for the family. This loan cover short term needs. Use of life enhancement loans in financing education expenses, medical expenses and building. Similar results were also detailed in Augsburg et al. (2015); Bhiuya et al. (2016) and Crepon (2015). The results of the study revealed limited use of digital technologies in the application, disbursement of microfinance services. Use of digital banking platforms in provision of microfinance services support efficient provision of agricultural inputs and value chain financing.

6.3.3 Farm sustainability

The current research also examined for the role of microfinance on the sustainability of smallholder farming activities. The research results revealed that microfinance is playing an important role in enhancing smallholder cattle farming activities, through commercialisation of farming activities and adoption of new farming technologies. Similar results were mentioned in Girabi and Mwakaje (2013) who stated that smallholder farmers who were microfinance beneficiaries were relatively better in accessing markets for agricultural commodities, use of inputs and adoption of improved farming technologies. Similar sentiments were also echoed by Abate et al. (2015) who asserted that access to institutional finance has a significant positive impact on both the adoption and extent of technology use.

On that note microfinance has played a positive role in the adoption of new agricultural technologies as well as commercialisation of smallholder farming activities in this study. Lawin et al. (2018) also suggested that microcredit has a positive impact on investment in agricultural activities, encourages a better-input use and favours adoption of new technologies. In support

of that, Islam et al. (2012) were for the view that access to microcredit had a positive and significant impact on the adoption of a new rice variety with high yield in Bangladesh. In contrary, Chowdhury et al. (2020) argued that a mere offering of microcredit to smallholder farmers does not lead to the adoption of agricultural technologies.

Increased farm income and number of cattle have also been mentioned as one of the positive sustainability effects of microfinance on smallholder farming sustainability. The results were in line with Mago and Hofisi (2016) who suggested that microfinance play an important role in smallholder farmers accumulation of agricultural assets, income from agriculture, agricultural education, agricultural productivity, agri-business, consumption and health. On the same note, Lawin et al. (2018) suggested that access to microcredit has a positive impact on farms acquisition of assets technical efficiency and productivity and then improves the profitability of farms activities.

Improvement of farm asset acquisition as well as improved cattle breeds was also mentioned as one of the positive effects of microfinance, with respect to farm sustainability in this study. The results however showed that purchase of agricultural assets was mainly a result of increase in farm income, thus the farmers used their surpluses from sale of cattle . This is however a disadvantage to the start-up smallholder commercial cattle fattening farmers as they might need support with agricultural loans to purchase farm assets like drilling of boreholes, wheelbarrows, building feeding and drinking pens among others. The support of farmers with loans for asset acquisition, in form of structured asset finance product, or a lease is therefore a prerequisite. This research argues that the support of smallholder farmers with farm assets at both infant and growth stages on their smallholder commercial farming activities will go a long way to improve farm income and sustainability.

The research results also suggested that microfinance was playing a very important role in enhancing farm sustainability through access to markets and diversification of their farming activities. Report by the USAID (2015) stated that to complete the value chain and mitigate price risks the farmer groups were linked to abattoirs such as Montana Carswell meats, Sabie meats and Head and Hooves for offtake of finished animals. In support of that, Kajenthini and Thayaparan (2017) detailed that loan beneficiaries who were received loans relatively better in accessing markets for paddy cultivation, and usage of inputs and also adoption of improved farming technologies in Jaffna district, Sri Lanka.

There were however, in current literature, no studies which mentioned diversification, that is venturing in other farming or non-farming activities using surpluses from the cattle farming activities. Farmers in the current study detailed that they have ventured into small livestock farming using smallholder pen fattening sales surpluses. This research recommends the need for further research on the effect of microfinance on farmers diversification into other non -core farming activities, that are not being directly funded by microfinance.

Farm sustainability challenges also emerged as a theme in the research. The smallholder farmers argued that whilst microfinance was to a greater extent playing a very important role in enhancing farm sustainability, there were farm sustainability challenges that microfinance was not addressing. The farm sustainability, include smallholder farmers are risk averse to go into retailing of beef and beef products. This was mainly due to poor rural market for beef; the need for reliable refrigeration; the need to set up the butcheries in town, where high competition exists among others (Munyoro et al. 2018). The other reasons were also due to the fact that smallholder farmers were satisfied with prices they were getting from abattoirs and smallholder farmers wanted to focus on primary production of beef.

With regards to farm sustainability, the results on the uses and applications of smallholder farmers revealed that the MFIs were playing a very important role in provision of agricultural inputs to smallholder farmers as well as supporting the smallholder farming value chain. It must however be noted that microfinance can only be a starting point of a virtuous circle for agriculture in Africa, that is those who have productive activity can farm and generate profit within supported agriculture value chains, but there is need to be a time when the farmers need to grow and be weaned out of the value chains to enhance self-sustainability, that is purchase of their inputs, marketing of their produce on their own.

6.3.4 Personal sustainability

Lastly, the research results revealed that microfinance was playing an important role in enhancing personal sustainability through improved household income and savings, improved household food security, improved self-esteem and improved quality of life. Probing of participants on their personal sustainability challenges showed that, they were having challenges in (1) maintaining gardens (2) balancing crop and cattle farming (3) houses and sanitation as well as (4) education and health. Results are in contrary with Tarrozi et al. (2015) which articulated that microfinance had positive impact on socio-economic outcomes tested, which included income from agriculture, animal husbandry, nonfarm self-employment, labour supply, schooling and indicators of women's empowerment. In support of that, Desai et al.

(2013) highlighted that micro-credit was overall associated with significant improvements in school attendance among 10-16 years old boys and in Amhara only among children of age 6-9 of either gender (Desai et al. 2013).

Microfinance participants' economic well-being as proxied by income and consumption improved significantly after joining the microfinance program (Bhuiya et al. 2016). Microfinance positively affects health and education. To Ariful et al. (2017) microfinance had a significant positive impact on household income, expenditures and savings. The research results were in contrary with a study by Augsburb et al. (2015) which argued that microfinance showed no evidence in increasing overall household income. Discussions in this section showed that literature contradict with this study results that microfinance as personal sustainability challenges in case studies used outweighed the personal sustainability contributions through farm produce surplus.

In microfinance, personal sustainability is key, thus microfinance needs to ensure both system-based farming operations and self-sufficiency. Lending a farmer funds for commercialising their farming activities, without ensuring the farmer has enough crops, enough vegetables in the garden can lead to misappropriation of funds as the farmer can divert the funds to but basic necessities such as vegetables or clean water. Basically, MFIs need to align to Grameen bank 16 principles, in order to enhance client's self-sufficiency, it is the duty of MFIs through social intermediation to enhance farmers personal sustainability and not the other way around.

6.4 CONCLUSIONS

6.4.1 Microfinance and Farm Sustainability

Despite farm sustainability challenges related to (1) smallholder farmers being risk averse to go into retailing of their own meat, and (2) farmers using their own funds for capital expenditure, this study shows the positive role of microfinance in contributing to farm sustainability. This is through, (1) smallholder farmers adopted new agricultural technology, (2) increased number of cattle, (3) improved access to adequate and quality cattle feed; (4) acquisition of improved cattle breeds; (5) improved farm asset acquisition; (6) increased access to cattle vaccines; (7) improved and expanded cattle housing; (8) diversification (9) permanent employees and (10) improved access to markets.

6.4.2 Microfinance and Farm Sustainability

Microfinance contributes towards smallholder farmers personal sustainability, through increased household income. This was evidenced by improved consumption patterns and increased savings, through savings clubs. Microfinance also contributed towards personal sustainability through improved household food security, in the aspect of both food availability and food accessibility. Cattle sale proceeds surpluses are used to procure more household food. Probing of participants on their personal sustainability challenges showed that, they were having challenges in (1) maintaining gardens (2) balancing crop and cattle farming (3) houses and sanitation as well as (4) education and health. It must however be noted that, in microfinance it is of paramount importance to focus on both customers personal and business sustainability. Conclusion can be made that personal sustainability challenges in case studies used outweighed the personal sustainability contributions.

6.4.3 The need for Entrepreneurship Skills for Smallholder farmers

The current study also concluded that the MFIs need to include enterprise development in smallholder farmers in the products and services, they avail to smallholder farmers, which will help to develop smallholder farmers' entrepreneurship skills. Entrepreneurship skills in the current study might entail farmers registering their retail meat businesses to sell their meat on their own locally in Zimbabwe or for export. In this study the farmers lack entrepreneurial mindset as they remain stuck in microfinance driven value chains rather than moving out of the value chains, create their own independent markets for their farm produce and achieve self-sustainability. Entrepreneurial skills enhance farmers to be agripreneurs. Agripreneurs need to be able to identify opportunities and seize them, must look for better ways to organise their farms, must try new crops and cultivars, better animals, and alternative technologies to increase productivity, diversify production, reduce risk and to increase profits.

6.5 CONTRIBUTIONS TO THE BODY OF KNOWLEDGE

As expected at PhD level, this thesis has made new contributions to the body of knowledge in a number of ways. The three major contributions are as follows:

6.5.1 Conceptual framework:

After a thorough review of literature, this thesis developed a conceptual framework, in the third Chapter. The Conceptual framework which set a platform of the development of four core

pillars, (1) Sustainable MFIs; (2) Integrated Microfinancing; (3) Smallholder farmers; and (4) Markets for SHFs. The assumptions which the framework is based on is that these four core pillars, have an effect on the Smallholder cattle farming sector and have a bearing on Smallholder farmers' cattle farmers sustainability. The conceptual framework led to the development of the '*Smallholder farming sustainability Framework*'. But the framework can be used in future research to help in the validation of the role of microfinance on smallholder farmers sustainability in future research.

6.5.2 Smallholder Farming Sustainability Pathway Framework:

This study contributed to the body of knowledge by formulating the sustainability framework. Whilst previous studies conducted on microfinance and smallholder farming have emphasised on the use of microfinance driven-tight value chain models to improve smallholder farming sustainability (Fintrac, 2021; Odhiambo, 2019; Siedek & Pini, 2020; USAID, 2015). The current study made major contributions of enhancing Smallholder cattle farming sustainability utilising five core pillars (Revised Conceptual Framework) namely (1) MFI Intervention; (2) Self - sufficiency; (3) Business modelling; (4) Entrepreneurial mindset and (5) Sustainable smallholder farming.

6.5.3 Conceptualising Smallholder farming Sustainability:

Smallholder farming sustainability in this study was defined as the need for smallholder farming supporting institutions to: (1) enhance the smallholder farmers self-sufficiency, (2) model businesses along system-based operations, (3) have entrepreneurial mindset, (4) create sustainable markets and (5) have the farmers create their own sustainable markets. Sustainability in this context entails the need not only for the smallholder farming supporting institutions create markets for the smallholder farmers, but of having the smallholder farmers also developing their own markets. The conceptualisation supports the definition by Shirahada and Fisk, (2011) that sustainability entails satisfying needs of current providers and recipients to engage in mutual value co-creation without decreasing the quality of future value co-creation. Figure 6.1 below show the conceptualisation of smallholder farming:

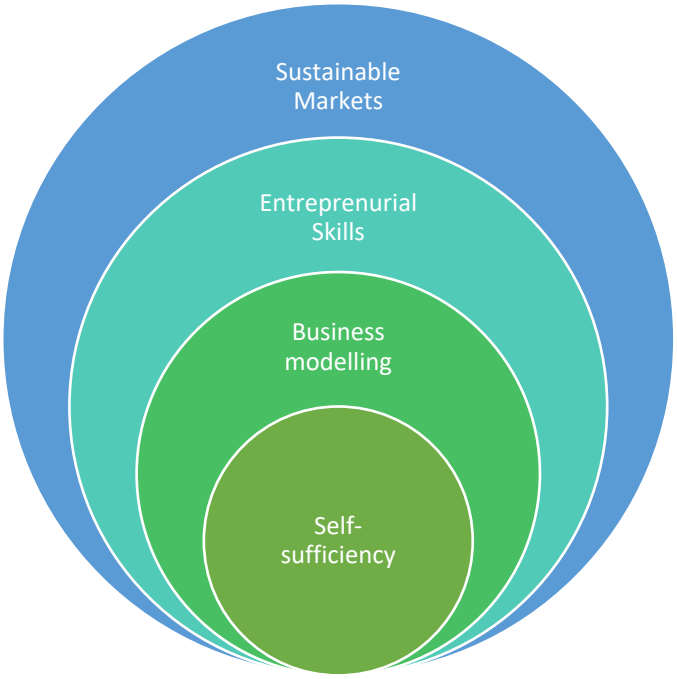


Figure 6.1: Conceptualising Smallholder farming Sustainability.
Source: Researcher's Own Construct

6.5.4 Focus on sustainable MFIs:

This research acknowledged the existence of the two microfinance competing paradigms namely the sustainable microfinance paradigm and the subsidised microfinance paradigm. This study, drew its major research gap from the core tenets of the sustainable microfinance that,

> *'Sustainable microfinance paradigm is concerned mainly with, building sustainable microfinance institutions which charge high interest rates to poor clients in order to fully recover their costs and become self-sustainable institutions. Proponents of the sustainable microfinance paradigm argue that microfinance means building strong and sustainable financial systems for the poor (Robinson, 2001). In addition, sustainable microfinance paradigm advocates that, interest rate ceilings can damage poor people's access to financial services, high interest rates in turn attract savings which can be turned into loans for poor clients' (Diagne and Zeller, 2001)*

In this regard, this study argued that 'How can sustainable MFIs contribute to the sustainability of smallholder farmers?' in their capacity as 'active poor clients' for sustainable MFIs when the sustainable MFIs focus is mainly on the sustainability of MFIs than the 'clients-smallholder farmers'.

6.6 IMPLICATIONS FOR THEORY

The researcher acknowledges the work of pioneers in the sustainable microfinance theory, such as Robinson (2001); Ledgerwood (1999); (Yunus, 2007); (Morduch, 2000) in describing the sustainable microfinance paradigm and its core tenets. The following implications to theory are the implications to the Sustainable microfinance lending theory.

6.6.1 Smallholder farmers need a variety of financial services, not just loans

Smallholder farmers need a variety of financial services, and not just loans, as well as the assertion that, the poor are clients and not recipients, are fundamentally important. In support of that, Morduch (1999, 2000) highlighted that, the poor need loans and not aid. This study also complimented with the above sentiments, of smallholder farmers being in need not just of financial services, in form of loans only but a range of services that include, savings, training, foreign currency savings account, insurance among others. This study also confirmed that, the smallholder farmers, do not require aid but require loans, that they can utilise the funds in their cattle farming activities, make profit, and be able to repay back their loans.

6.6.2 Interest rates

High interest rates were cited by Participant 8 as one of the challenges smallholder farmers were facing when accessing microfinance services. This was shown by the following excerpt:

> *The truth is that we need subsidies on the loans that we get from the MFIs. I know that the MFIs are there to make business and they are bound to charge interest rates that allow them to have sustainable operations. I feel the government also have to cheap in and give the MFIs cheap monies that they can add to their private capital that they give us. In that way, I think this can help to bring down the interest rates as there will be a blend of subsidised funds from the Government and private funds from MFIs* ***(Participant 8; Quote 1).***

This is in contrary with contributions by Ledgerwood (2013), that subsidised lending undermines development, and the poor people can pay interests high enough to cover transaction costs and the consequences of the imperfect information markets in which lenders operate. In addition, Robinson (2001) also highlighted that, interest rate ceilings can damage poor people's access to financial services, high interest rates in turn attract savings which can be turned into loans for poor clients. This research argues that interest rates do not impede client's sustainability in sustainable lending but rather improve both microfinance client

outreach and microfinance sustainability (Otero, 2014). The research argues that, the government duty is not to provide financial services but rather to complement the sustainable MFIs in provision of microfinance services, through training. It is the duty of the smallholder cattle farmers to effectively use the loans they are given, at any interest rate that enhance, MFI sustainability and outreach (client sustainability).

6.6.3 Conceptualisation of Personal Sustainability in the context of the Sustainable Microfinance Lending theory

The sustainable microfinancing lending theory is silent on what defines personal sustainability. Whilst the researcher acknowledges the status quo that came from the study, that personal sustainability was achieved through successful MFI funded, cattle farming projects, that is in essence 'commercial banking' than microfinancing. Sustainable microfinancing needs to achieve personal sustainability, where the clients become personally sustainable as guided by Grameen bank 16 principles. The Grameen bank 16 principles, thus need to define personal sustainability in sustainable microfinance lending.

6.7 IMPLICATIONS FOR POLICY AND PRACTICE

6.7.1 Implications for Microfinance Institutions

6.7.1.1 Incorporate Information technology to address Cumbersome application procedures:

Challenges faced by smallholder farmers when accessing microfinance services that include cumbersome application procedures, longer micro-loans disbursement lag time and MFI staff corruption, can be mitigated by the incorporation of information technology in not only the application process but in the whole process,. The use of information technology can be done through use of mobile application, where the farmer can apply a loan, track loan application, make a loan repayment and receive information about new products offerings at a click of a button.

6.7.1.2 Address Corruption:

Research results evidenced that corruption of MFI staff, in the form of requesting for kickbacks, for shorter loan disbursement lag time and imposition of ghost borrowers in some farmers' groups. Implications for the MFIs internal audits department is that they need to carry out frequent audits, with regard to how the loans are being disbursed to the SHFs, group formation, composition of group members and repayment of group members.

6.7.1.3 Training:

Training is very important non-financial service, which complement the provision of microfinance services, that is both financial and non-financial services to 'poor clients' (Ledgerwood, 1999; Robinson, 2001). The integrated approach has been coined as a more appropriate approach of microfinance service provision to poor clients. Mago and Hofisi, (2016; 64), affirms that the use of integrated approach for the provision of microfinance to smallholder farmers benefit them as it allows for the provision of both financial and non-financial services. Against the background of low financial literacy of smallholder farmers, as indicated in the research results, the MFIs must provide continuous training to smallholder farmers to improve their financial literacy and both their business management and farming skills.

***6.7.1.4 Personal sustainability*:**

The main difference between traditional banking and microfinance is that microfinance have to focus more on personal sustainability elements as recommended by the Grameen bank 16 principles, before focusing on creating system-based operations (business modelling) for their clients, in this case smallholder farmers. This study argues that provisions of micro-loans to smallholder farmers for business modelling whilst ignoring their personal sustainability will lead to misappropriation of microfinance loans, as they would want to address their personal sustainability gap, for example buying vegetable-which they can grow (Grameen principle).

***6.7.1.5 Entrepreneurship skills*:**

Literature in this research details the difference between minimalist and maximalist or integrated microfinancing. Minimalist microfinance only offers financial intermediation, whilst integrated microfinance offers financial intermediation, social intermediation, enterprise development services and social services. This study argues that there is need, in addition to creating system-based smallholder farming operations, to offer enterprise development

services to smallholder farmers, to enhance them to create their own formal businesses, registering their farming into formal businesses that create their own markets for the smallholder farming produce.

6.7.2 Implications for the Government

The smallholder farmers are experiencing challenges with regards to retailing their own beef and beef products due to high competition and lack of structural support systems to get them out of the MFI-driven cattle farming value chain. This research argues that after a period of four years, at most of successive borrowing from MFIs, must be self-sustainable to get out of the value chain and start to produce and sell their own farm produce. The government of Zimbabwe, through:

6.7.2.1 Creation of polices that promote smallholder cattle farmers participation in public procurement:

The Ministry of Industry and Commerce (MOIC) should consider creating polices that promote smallholder cattle farmers participation in public procurement. It must be noted that the Public Procurement and Disposal of Public Assets Act, Chapter 22:23 of 2017, is silent about setting aside a certain percentage that is designated for smallholder farmers. The MOIC can consider to incorporate in the Public Procurement and Disposal of Public Assets Act, a certain percentage of designated government procurement contracts or total spending reserved for smallholder cattle farmers to meet the qualification criteria. The critical aspect of this approach is that there is a segregation of competition amongst smallholder farmers, who compete against each other. The 'certain percentage' can be guided by the following, percentages of procurement of Small, Micro and Medium Enterprises (SMMEs) in the following countries; South Africa (30%); Angola (25%); Kenya (25%); Algeria (20%); Cote d'Ivoire (20%); India (20%) and Morocco (20%). A recommended designated quota for smallholder farmers participation in government contracts given the guidelines above is ***25%***.

6.7.2.2 Removal of barriers for smallholder farmers by stage of procurement process:

The solutions for removal of barriers that can impede smallholder farmers inclusion in the public procurement process are shown in table 6.1 below:

Table 6.1: Solutions for Smallholder farmers inclusion in the procurement process.

Procurement Stage	Barriers	Solution
Pre-bidding stage	Restricted communication and publication of contract opportunities	ICT
	Government placing too much emphasis on past experience or firm size	Quota system
	Access to relevant information	ICT
	Difficulties due to size of contracts	Quota system
Application stage	Excessive bureaucracy and documentation requirements	ICT
	High bid security deposit	
	Not enough time to prepare quotations	Quota
	Lack of capability to write a proper bid proposal	Education
	Unclear selection criteria	Education
Selection stage	Preference of large bidders with long track record	Quota
	Too much focus on price and not value	

Source: Own construct, for this research

6.7.3 Implications for Smallholder Farmers

There is great need for smallholder farmers to enhance the marketing and selling of their farm produce through:

6.7.3.1 Social media marketing:

The use of Information technology platforms to market their beef and beef products will enhance the smallholder farmers to sell their farm produce on-line and deliver where it is needed. This will help the farmers to raise enough funds to rent brick and mortar beef retail stores. In this regard, the farmers will use both brick-and-mortar stores to retail their beef and beef products. Social media platforms that can be used include Facebook, Twitter, and the Website.

6.7.3.2 Mobile Application:

The farmers can create a mobile application, which they use to sell their farm produce to both local buyers, and foreign buyers who want to buy for their relatives who reside in Zimbabwe. The mobile application can be linked to different bank accounts, which can be in form of a

private limited company. In this regard, the customers can pay using any currency, be it ZAR, USD, ZWL, BWP or any other currency, with local currency being deposited in the ZWL account, and foreign currency being deposited in the foreign currency. This will help the farmers to sustain themselves in instances where they have to buy farm inputs from suppliers that do require foreign currency only for farm inputs.

6.7.3.3 Registered Businesses:

The smallholder farmers should consider registering their smallholder farming entities as established businesses in form of Private limited Companies or Cooperatives. This way, it can help them to establish entities that they can use to sell their beef and beef products. This enables the farmers to create their own markets outside the microfinance driven value chains. The business, for example after registration would have a logo, website, that can be used to open social media platforms like Facebook, Twitter or the mobile applications to market the beef and beef products, operate in loose value chains, thereby enhancing business sustainability.

6.7.3.4 Agripreneurs:

Smallholder farmers need to be agripreneurs, through strategic cattle farming, which involve the incorporation of entrepreneurship skills and models to farming business, as well as creation of their own markets. The farmers need to be capable of creating and developing a profitable farming business in a dynamic business environment. The farmers need to be innovative, forward-looking, and manage their farming business as a long-term venture with a view to making it sustainable. Lastly, the farmers need to be able to identify opportunities and seize them, use the competitive advantage which is caused by microfinance to continuously organise their farms, better cattle breeds use agricultural technologies to increase productivity, diversify production, reduce agricultural risk and to increase profits.

6.8 LIMITATIONS AND FUTURE STUDIES

6.8.1 Limitations of the Research

Whilst the study acknowledged the existence of the subsidised microfinance paradigm, the study, in conceptualisation of key concept, formulation of the conceptual framework, collection of data and analysis of data was hinged on the sustainable microfinance paradigm. This limitation was however not of any negative effect to the study, because the research utilised the critical realism research philosophy to critically assess the ontological perspective, of what

is real on the role of the sustainable microfinance lending on smallholder farmers' sustainability.

This research was carried out in a qualitative context, where data was collected from eight smallholder cattle farmers and two MFI institutions that availed microfinance services to smallholder farmers. The limitation however did not affect the research results and outcomes as data was collected until data saturation.

6.8.2 Implications for Future Research

With regards to future studies, the research study recommends that future research studies, cover the extent to which microfinance has led to smallholder farming diversification. That is diversification to other farm or non-farm activities other than those directly funded by the MFIs. Secondly, the extent to which smallholder farming financing and sustainability can be incorporated in the country's agriculture policy. Thirdly, the preparedness of smallholder farmers to acquire entrepreneurial skills. Lastly, the study recommends a comparative analysis between two competing paradigms, the subsidised microfinance paradigm and the sustainable microfinance paradigm on their role in their 'recipients' and 'clients' respectively sustainability.

6.9 CONCLUSION

This chapter provided a summary of major themes that emanated from the findings, a discussion of findings. The discussion was imperative as it presents the final standpoint of the study, whether the study agrees or disagrees with the literature based on the findings. conclusions aligned to each major theme as well as contribution to the body of knowledge is presented in this chapter. The chapter also provided the implications to theory, policy as well as limitations of the study and areas for further research.

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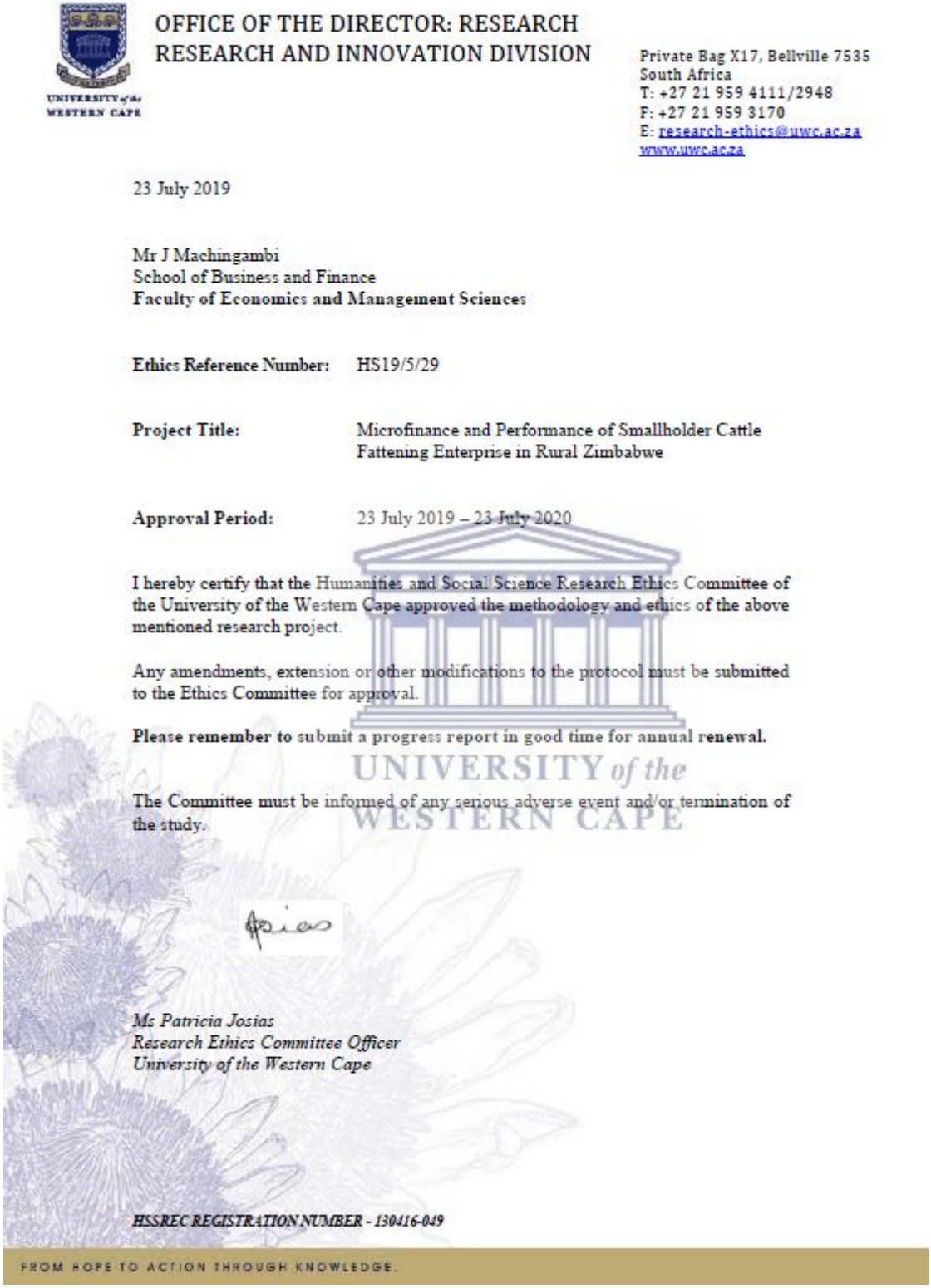
APPENDICES

APPENDIX 1: ETHICS COMMITTEE APPROVAL



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23 July 2019

Mr J Machingambi
School of Business and Finance
Faculty of Economics and Management Sciences

Ethics Reference Number: HS19/5/29

Project Title: Microfinance and Performance of Smallholder Cattle Fattening Enterprise in Rural Zimbabwe

Approval Period: 23 July 2019 – 23 July 2020

I hereby certify that the Humanities and Social Science Research Ethics Committee of the University of the Western Cape approved the methodology and ethics of the above mentioned research project.

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

Please remember to submit a progress report in good time for annual renewal.

The Committee must be informed of any serious adverse event and/or termination of the study.

Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape

HSSREC REGISTRATION NUMBER - 130416-049

FROM HOPE TO ACTION THROUGH KNOWLEDGE.

APPENDIX 2: MINISTRY OF LANDS, AGRICULTURE, WATER,CLI MATE AN D RURAL RESETTLEMENT APPROVAL LETTER

All correspondence should be addressed to

"THE SECRETARY"

Telephone: 706081/9
Fax: 734646
Telex: ZIM AGRIC: 22455 ZW

ZIMBABWE

MINISTRY OF LANDS, AGRICULTURE,WATER,CLIMATE AND RURAL RESETTLEMENT
Ngungunyana Building
1, Borrowdale Road
Private Bag 7701
Causeway
Harare

Ref: S/Machingambi J

06 August 2019

Mr. J. Machingambi
University of Western Cape

REQUEST FOR PERMISSION TO CARRY OUT RESEARCH ON MICROFINANCE INSTITUTIONS AND SMALLHOLDER FARMERS IN MASVINGO: MR. J. MACHINGAMBI: PHD STUDENT: UNIVERSITY OF WESTERN CAPE

It has been noted that you are pursuing a PhD in Environmental Science with the University of Western Cape and your area of study is microfinance and performance of smallholder cattle fattening enterprises in rural Zimbabwe. It has been further noted that you are kindly requesting to carry out key informant interviews with smallholder cattle fattening farmers in Mwenezi, Bikita and Chartsworths.

In view of the above I as Head of Ministry grant you permission to carry out interviews in the above mentioned areas.

PERMANENT SECRETARY
MINISTRY OF LANDS, AGRICULTURE, WATER, CLIMATE AND RURAL RESETTLEMENT
16 AUG 2019
No. 1 BORROWDALE RD.
P BAG 7701, CAUSEWAY
HARARE, ZIMBABWE

R. J. CHITSIKO
SECRETARY FOR LANDS, AGRICULTURE, WATER, CLIMATE AND RURAL RESETTLEMENT

APPENDIX 3: CONSENT FORM

Title: A Qualitative Inquiry on the Role of Microfinance on Smallholder Farmers' Sustainability in Rural Zimbabwe

Consent form for interview instrument

Thank you for your participation. By completing this form you are indicating that you have read the description of the study, are over the age of 18, and that you agree to the terms as stipulated below:

Please tick (Ayuub, 2013; Mago & Hofisi; Tessie, 2010; Wahibur, 2013) in the box

I confirm that I have read and understand the information sheet explaining the above research project and I have had the opportunity to ask questions about the research. ☐

I consent to attend to the asked questions ☐

I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. ☐

Should I not wish to answer any particular question or questions, I am free to decline. ☐

(If I wish to withdraw I may contact the lead researcher at any time)

I understand my responses and personal data will be kept strictly confidential. I give permission for members of the research team to have access to my anonymised responses. ☐

I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the reports or publications that result for the research. ☐

I have had all my questions answered to my satisfaction and all the risks associated with my participation have been explained to me. ☐

I consent and agree to have the interview to be recorded by the lead researcher for the purpose of this study. ☐

I grant permission for the research to be recorded using audio and video recording devices to be used in presentations, documentation and publications of this study where my identity will be kept confidential and anonymous. ☐

I

_____ _____

Name of Participant Date Signature

_____ _____

Name of person taking consent Date Signature
(If different from lead researcher)

_____ _____ -
_____

Lead Researcher Date Signature
(*To be signed and dated in presence of the participant*)

Copies: All participants will receive a copy of the signed and dated version of the consent form and information sheet for themselves. A copy of this will be filed and kept in a secure location for research purposes only.

Lead Researcher: Jeremiah MACHINGAMBI , School of Business & Finance, Faculty of Economic & Management Sciences, Email :3710063@myuwc.ac.za , Tel : +27-62-859-7378, +263-77-941-9342

Humanities & Social Sciences Research & Ethics Committee (HSSREC), UWC , P O Box X17 , Bellville , 7535, South Africa , Email : research-ethics@uwc.ac.za , Tel: +27-21-959-2988

This Research project has received ethical approval from the Humanities & Social Sciences Research Ethics committee of the university of the Western Cape, Tel ; 021 959 2988 , email: research-ethics@uwc.ac.za

APPENDIX 4: INTERVIEW GUIDE

UNIVERSITY OF THE WESTERN CAPE

INTERVIEW GUIDE

For the

PhD Thesis entitled

A QUALITATIVE INQUIRY ON THE ROLE OF MICROFINANCE ON SMALLHOLDER FARMERS' SUSTAINABILITY IN RURAL ZIMBABWE

For

PhD Management

Compiled By

Jeremiah Machingambi

Dear Participant

My name is Jeremiah Machingambi, a PhD candidate (Management) at the University of the Western Cape. I am kindly inviting you to participate in my research study, titled '***A Qualitative Inquiry on the Role of Microfinance on Smallholder Farmers' Sustainability in Rural Zimbabwe***'. The participation in the current study is voluntary, and you are free to withdraw at any time. Information gathered from you will remain confidential.

The investigative questions formulated for the study are:

1. What challenges are being faced by smallholder farmers when accessing MFI services?
2. What are the uses and applications of microfinance loans by smallholder farmers?
3. How is microfinance contributing to the sustainability of both their farming activities and individually?

Thank you for participating in the study.

Yours sincerely

Jeremiah Machingambi

jmachingambi@gmail.com

Contact details: +27 71 175 7490

SECTION A: DEMOGRAPHIC DATA

Please note that the questions provided below serve as a guideline, questions might be rephrased, changed, added, during the interview process, to solicit more information and to probe. The questions are aligned to the investigative questions.

DEMOGRAPHIC DATA

Farm size	
Herd of cattle	
Year of first loan from MFI	
Water Source	
Average length of fattening cycle	
Operations	
Number of Employees	

SECTION B: MFI services access challenges

1. Briefly explain your smallholder farming operations?
2. For how long have you been accessing microfinance services?
3. Which services are you accessing from the MFIs?
4. What challenges are you facing as you access those MFI services?
5. What do you think are the solutions to the challenges?

SECTION C: Uses of MFI loans

1. Explain how you use the loans that you receive from the MFIs?
2. Have you ever at any time used the MFI loan, for other things that you have not borrowed it for?
3. If your answer is Yes in 2, what did you do to repay back the loan?

SECTION D: Microfinance and Smallholder farmers sustainability

1. Explain how MFI services have improved your cattle farming activities?
2. Can you explain any farming sustainability challenges you have, despite the MFI support?
3. Explain how MFI services have improved your household and personal needs?
4. Can you explain any household/ individual challenges you have, despite the MFI support?

APPENDIX 5: MFI DOCUMENT ANALYSIS TAMPLATE

UNIVERSITY OF THE WESTERN CAPE

DOCUMENT ANALYSIS GUIDE

For the

PhD Thesis entitled

A QUALITATIVE INQUIRY ON THE ROLE OF MICROFINANCE ON SMALLHOLDER FARMERS' SUSTAINABILITY IN RURAL ZIMBABWE

For

PhD Management

Compiled By

Jeremiah Machingambi

The following template was used to guide the MFI document analysis process:

	MFI A	MFI B
Paradigm		
Deposits		
Interest Rates		
Products		
Product focus		
Staff		
Delivery		
Organisational structure		
View on customers		
Ownership		
Regulation		
Products and Services		