

**FINANCING STRUCTURE AND FINANCIAL SUSTAINABILITY:
EVIDENCE FROM
SELECTED SOUTHERN AFRICA DEVELOPMENT COMMUNITY
MICROFINANCE INSTITUTIONS**

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DECLARATION

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ABSTRACT

Despite the burgeoning interest in microfinance, research has shied away from addressing the relationship between financing structure and the financial sustainability of microfinance institutions (MFIs) as evidence on the same remains sparse. Considering the commercialisation trend, this thesis closes this gap by examining the relationship between the financing structure and financial sustainability for selected Southern Africa Development Community (SADC) MFIs. The effort was informed by the need to have financially sustainable MFIs that can consistently provide financial services to the marginalised, and hence advance outreach in the poverty-stricken region. The thesis comprises a blend of four research papers that address: (1) a conceptual review of ‘financial sustainability’ as applied in microfinance, (2) the essence of the life cycle theory (LCT) in explaining financial sustainability, (3) financing structure and financial sustainability, as well as (4) the relationship between the financing structure and outreach (depth and breadth). Assuming panel data on 60 selected MFIs drawn from the MIX over a period of six years, the study applies robust panel framework (fixed and random effects models) as well as binary-outcome models (probit and logit models). The results show that MFI age alone cannot explain the level of financial sustainability. Rather, the ability to manage default risk by reducing the portfolio at risk as well as embracing cost-efficiency by minimising both operational and financing costs improves chances of financial sustainability. Generally, MFIs are not financially sustainable — supporting evidence from earlier studies. ‘Young’ MFIs emerge more financially sustainable signifying a new trend variant from the propositions of the LCT. Further evidence reveals that financial sustainability is sensitive to the financing sources employed by MFIs as well as the number of active borrowers. Regulatory costs also limit the role of deposits in spurring financial sustainability. Moreover, results demonstrate that outreach depth is significantly constrained by debt financing; whilst equity, deposits and ‘new’ MFIs have a significant positive effect on outreach depth. Outreach breadth is promoted by deposits only; whilst equity, debt and ‘new’ MFIs limit it. The study suggests the adoption of proper credit risk analysis done through credit bureaus and client screening technology to reduce adverse selection and moral hazard. In addition, a strong loan recovery strategy can also limit outstanding loans. Embracing cost-efficiency through the use technology such as mobile banking and cost-cutting innovation in lending may reduce the operating costs for MFIs. Also, financing costs incurred

through the use of costly borrowings can be controlled by reducing borrowings, thereby improve chances of attaining financial sustainability. The removal of controls on lending rates and the promotion of efficient financial markets through appropriate regulatory framework go a long way in reducing the cost of borrowing, allow for the raising of equity capital as well as stimulating financial sustainability. Regulation that promotes competition; reduce regulatory costs and allow for the establishment of ancillary financial infrastructure (credit bureaus) helps in improving transparency in the microfinance sector.

OPSOMMING

Ten spyte van die groeiende belangstelling in mikrofinansies, het navorsing weg van die aanspreek van die verhouding tussen finansiering struktuur en die finansiële volhoubaarheid van microfinansiering instellings (MFI) as getuie op dieselfde weggeskram bly yl. Met inagneming van die kommersialisering tendens, hierdie tesis sluit hierdie gaping deur die ondersoek van die verhouding tussen die finansiering struktuur en finansiële volhoubaarheid vir geselekteerde Suider-Afrikaanse Ontwikkelingsgemeenskap (SAOG) MFI. Die poging is deur die behoefte om finansiële volhoubaar MFI wat konsekwent kan verskaf finansiële dienste aan die gemarginaliseerde, en dus bevorder uitreik in die armoede-geteisterde gebied het. Die tesis bestaan uit 'n mengsel van vier referate wat spreek: (1) 'n konseptuele oorsig van 'n finansiële volhoubaarheid 'soos toegepas in mikrofinansies, (2) die essensie van die lewensiklus teorie (LCT) in die verduideliking van finansiële volhoubaarheid, (3) finansiering struktuur en finansiële volhoubaarheid, asook (4) die verhouding tussen die finansiering struktuur en uitreik (diepte en breedte). Die aanvaarding van data paneel op 60 gekies MFI uit die mengsel oor 'n tydperk van ses jaar, die studie van toepassing is sterk paneel raamwerk (vaste en ewekansige effekte modelle) asook binêre-uitkoms modelle (probit en logit-modelle). Die resultate dui daarop dat MFI ouderdom alleen die vlak van finansiële volhoubaarheid nie kan verduidelik. Intendeel, die vermoë en die standaard risiko te bestuur deur die vermindering van die portefeulje in gevaar asook die aanvaarding van koste-doeltreffendheid deur die vermindering van beide operasionele en finansieringskoste verhoog kans op finansiële volhoubaarheid. Oor die algemeen, MFI is nie finansiële volhoubaar - ondersteunende bewyse van vorige studies. 'Jong' MFI na vore meer finansiële volhoubaar aan te dui 'n nuwe tendens variant van die stellings van die LCT. Verdere bewyse toon dat finansiële volhoubaarheid is sensitief vir die finansiering bronne in diens van MFI asook die aantal aktiewe leners. Regulatoriese koste ook die rol van deposito te beperk in stijgende finansiële volhoubaarheid. Verder het die resultate toon dat uitreik diepte aansienlik beperk word deur skuldfinansiering; terwyl aandele, deposito's en 'nuwe' MFI het 'n beduidende positiewe uitwerking op outreach diepte. Outreach breedte word bevorder deur net deposito's; terwyl aandele, skuld en 'nuwe' MFI beperk dit. Die studie dui daarop dat die aanvaarding van behoorlike krediet risiko-analise gedoen deur kredietburo's en kliënt screening tegnologie om ongunstige seleksie en morele gevaar te verminder.

Daarbenewens kan 'n sterk lening herstel strategie ook uitstaande lenings te beperk. Omhels koste-doeltreffendheid deur die gebruik van tegnologie soos mobiele bankdienste en koste te sny innovasie in uitleen kan die bedryfskoste vir MFI verminder. Ook, finansieringskoste gely deur die gebruik van duur lenings kan beheer word deur die vermindering van lenings en sodoende kanse bereiking finansiële volhoubaarheid te verbeter. Die verwydering van kontroles op uitleenkoerse en die bevordering van doeltreffende finansiële markte deur middel van toepaslike regulerende raamwerk gaan 'n lang pad in die vermindering van die koste van lenings, voorsiening te maak vir die verkryging van aandele kapitaal sowel as stimulerend finansiële volhoubaarheid. Regulasie dat mededinging bevorder; verminder regulatoriese koste en voorsiening te maak vir die vestiging van bykomende finansiële infrastruktuur (krediet buro) help in die verbetering van deursigtigheid in die mikrofinansies sektor.

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LIST OF ACRONYMS AND ABBREVIATIONS

ATM	Automated Teller Machine
BESA	Bond Exchange of South Africa
CFA	Cost of Funds Adjustment
CGAP	Consultative Group to Assist the Poor
DFID	Department of International Development
DRC	Democratic Republic of Congo
DSE	Dar Stock Exchange
EBRD	European Bank of Reconstruction and Development
FS	Financial Sustainability
FSS	Financial Self Sufficiency
GNU	Government of National Unity
IA	Inflation Adjustment
IFC	International Finance Corporation
IFI	International Financial Institution
ISA	In-kind Subsidy Adjustment
KfW	Kredistaustalt fur Weideraufbau
LCT	Life Cycle Theory
LGA	Local Government Association
MFI	Microfinance Institution
MIX	Microfinance Information Exchange
MSME	Micro, Small and Medium Enterprises
NBFI	Non bank Financial Institution
NGO	Non Governmental Organisation
NPL	Non Performing Loans
OSS	Operational Self Sufficiency
PIT	Profit Incentive Theory
RISDP	Regional Indicative Strategic Development Plan
ROA	Return on Assets
SACCOS	Savings and Credit Cooperatives

SACU	South African Currency Union
SADC	Southern Africa Development Community
SADCC	Southern Africa Development Coordination Community
SARB	South African Reserve Bank
SDI	Subsidy Dependency Index
SEF	Small Enterprise Foundation
SSA	Sub Saharan Africa
SSE	Swaziland Stock Exchange
UNCTAD	United Nations Council on Trade and Development
USAID	United States Agency for International Development
WEF	World Economic Forum
ZAADS	Zimbabwe Arrears Clearance and Debt Settlement

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CHAPTER 1

INTRODUCTION

1.1 Background and problem statement

Hoskinson (2008:ii) wrote that, “In a world in which almost half of the population lives on less than two dollars per day (World Bank 2008), the alleviation of poverty is a serious developmental challenge for many states.” Concerted efforts to fight poverty have seen the emergence of microfinance (Kimando et al. 2012; Brau & Woller 2004). It has long been documented that microfinance turns around the fortunes of the poor especially in developing countries and improves financial inclusion for marginalised societies (Khawari 2004; Littlefield et al. 2003; Parveen, 2009). In this realm, the goal of microfinance institutions (MFIs) is to service the financial needs of un-served or under-served markets so as to create employment, reduce poverty, expand existing businesses, support new businesses and empower women and low income earners (Aveh et al. 2013; Iezza & La Cour 2010; Bredberg & Ek 2011; Johnson 2015; Khandker 2001).

However, the poverty alleviation role of microfinance is hinged on the assumption that MFIs exist eternally (financial sustainability) to solve social ills (Tehulu 2013; Borbora & Sarma 2007; Khawari 2004; Rhyne 1998; Gonzalez–Vega 1994). Failure of MFIs to ‘live forever’ implies that the poor will not be served by MFIs in the future hence poverty will be left un-checked (Schreiner 2000; Littlefield et al. 2003). Accordingly, financial sustainability or ‘permanency’ of MFIs (Khawari 2004) in an economy consolidates financial inclusion and poverty eradication efforts. Of note is that financial sustainability is not an end in itself but a means to an end (Rhyne 1998). The end is to serve the poor through MFIs that are able to meet their operating costs and realise profits that further the outreach hence a ceaseless control on poverty (Brau & Woller 2004).

Given the massive applauding of financial sustainability of MFIs as additive to efficiency and pronounced outreach (Brau & Woller 2004), there has been a marked movement towards attaining financial sustainability (Hallway et al. 2011). However, MFIs unlike other financial institutions are unique as their operations are hinged on the double bottom lines, i.e. the social obligation¹ and financial self-sufficiency² (Kumar 2012). The move to attain financial sustainability has sparked a debate on mission drift³ (Hermes & Lensick 2011). The fear is that pursuing financial sustainability may spur mission drift especially where cost-cutting measures are effected. Since small loans tailored for the poor have high administrative costs attached to them, financial sustainability aligned MFIs tend to limit such loans hence reduce lending to the poor. Empirics however are at variance regarding the effect of financial sustainability on outreach, especially the depth of outreach.

A strand of evidence support that though sustainable MFIs are larger and more efficient, they do not target the poor - substantiating mission drift except where subsidies are availed. Quayes (2012:4) refers to the depth of outreach and financial sustainability as "...two desirable but polar opposite targets." Outreach depth is pro-poor whilst financial sustainability compels MFIs to limit disbursements of small loans to the poor given the cost-inefficiency associated with such loans. Cull et al. (2007) contend that MFIs can pursue commercialisation⁴ and still reach out to the poor (though they may have to neglect the abject poor). On the same note Conning (1999) opined that MFIs seeking financial sustainability whilst enjoying a good outreach may need to up their lending rates to cover costs of disbursing loans. Ek (2011) however argued that as much as sustainable MFIs reach out more to clients, such MFIs still tend to dish-out large loans with less female borrowers in their clientelle pointing to mission drift.

Earlier work by Paxton (2002) assert that innovative lending methods devised by MFIs such as group lending reduce information asymmetry, administrative and monitoring costs thereby supporting financial sustainability. Recent technological improvements such as cellphone banking further reduce service costs for MFIs adding to financial sustainability of MFIs where

¹ Serving the core poor

² Synonymous to financial sustainability

³ failure to meet the mission of providing financial services to the poor

⁴ Pursuit of financial sustainability by resorting to commercial financing of operations and pricing of products and services

lending is extended to the poor (Quayes 2012). These views shoot down fears of mission drift raised by welfarists when MFIs pursue financial sustainability. Additional evidence citing Quayes (2012) reveal that the poor are the most keen to repay as they seek to maintain intertemporal linkages with MFIs (Tschach 2002). This negates indications of repayment worsening with the level of poverty or with the charging of commercial rates on loans. If lending costs are reduced because of lending innovations and if the poor have a higher repayment rate, then lending to the poor backs financial sustainability. Manos and Yaron (2009) even identified a positive short run relationship between outreach and financial sustainability with the long run relationship hinging on scale of operations and innovation in lending.

The debate on financial sustainability and outreach has diverted to capture the financing structure of MFIs. Studies on financial sustainability and outreach tend to indicate that outreach is a function of how an MFI is financed, same as MFI financial sustainability (Quayes 2012; Bogan 2012; Kumar 2012; Hallway et al. 2011). Of note is that financial sustainability of MFIs by definition has connotations on how MFIs ought to be financed. Rosenberg (2009) and Sekabira (2013) amongst other earlier works by Otero and Rhyne (1994) and Von Pischke (1996) stressed that, the financing structure of financially sustainable MFIs is exempt of ‘altruistic support.’

MFIs’ movement towards financial sustainability has seen the shedding off of grants and subsidies in their financing structure in a trend popularised as commercialisation (Kimando et al. 2012; Kapper 2007). According to Lafourcade et al. (2006:123), ‘The future of microfinance as a commercial industry has become the dominant strand of thought behind several international development organizations.’ Given that donors’ record in providing capital for development is inconsistent (Ayayi & Sene 2010; Bulir & Hamann 2006), many MFIs are resorting to commercial financing. Despite evidence showing that commercialisation or financial sustainability has been associated with mission drift some MFIs have demonstrated capacity to reach the poor without donor funds (Bogan 2012).

The shedding off of grants and subsidies by MFIs is in order to raise cost efficiency within MFIs. Hollis and Sweetman (1989) labelled subsidized funds as fragile and capable of causing MFIs to lose objectivity faster compared to funds that are obtained from depositors or borrowed. Complacency therefore on the part of MFIs to do due diligence and proper management of their

lending activities affects both outreach and financial sustainability. Also, with the general decline of donor funds world-wide (especially during and after the 2008 global financial crisis), relying on donor funds is not a dependable option for MFIs' survival (Bredberg & Ek 2011). Rhyne (1998) notes that governments and donors have failed to finance microfinance at a mega-scale to fully serve the poor and worse still; subsidies are not stable based on the lack of assurance of their continued injection.

Bogan (2012) in a study that investigated how variation in financing structure of MFIs promoted financial sustainability concluded that grant usage in the financing structure of large MFIs significantly reduced operational efficiency and financial self sufficiency. Kumar (2012) interrogated how capital structure affected the performance of MFIs (considering agency theory) and established that the usage of debt enhances profiteering for MFIs. The study also concluded that high debt levels reduce the depth of outreach. However, the study noted that capital structure does not have a profound effect on the breadth of outreach as well as women's involvement in microcredit. These findings are in tandem with Hallway et al. (2011) who confirmed that, debt financing lowers outreach to the poor, though it upholds financial sustainability. Their study also concluded that, commercialisation compound mission drift by MFIs, thereby stirring the debate on the proper financing sources that would ascertain financial sustainability and outreach at once.

Earlier empirical work by Iezza and La Cour (2010) meant to explore the effects of capital structure on the performance of MFIs concluded that highly leveraged MFIs got an enhanced outreach breadth to clients as they are able to capitalise on scales hence address informational asymmetry, adverse selection and moral hazard. Sekabira (2013) augmented Iezza and La Cour (2010) position by writing that sustainable poverty reduction and food security is a function of the capital structure. On capital compositions, Sekabira (2013) established that debt and grants had a noticeable damaging effect on MFI financial sustainability. As if in complete repulsion of Sekabira (2013), Aveh et al. (2013) pointed out that most MFIs have for long been dependent on subsidies for their sustainance.

Evidence cited bring to the fore the fact that the extent of outreach (depth and breadth) considering financial sustainability is defined by the financing structure. Also, though evidence from a multiplicity of studies confirm the existence of a relationship between MFI financing

structure and financial sustainability same as financing structure and outreach, no consensus has been reached on the nature and direction of such. This leaves room for further enquiry as to how MFIs can be financed to further both financial sustainability and outreach.

1.2 A focus on Southern African Development Community

A survey by Karim et al. (2011) on the state of microfinance in SADC that centred on the landscape, regulatory environment and the level of support and monitoring showed that, SADC is poverty stricken given paltry microfinance outreach and MFIs face financing and financial sustainability challenges. The survey recommended the injection of new capital to ailing MFIs to ascertain financial sustainability and regulating deposit taking MFIs given a surge in unsound rural banks that ended up ‘disappearing.’ A few ‘survivors’ remained operational raising questions on how financial sustainability can be attained through the financing structure. The survey painted a gloomy picture of microfinance outreach in the region. SADC outreach is supported mostly by micro-lending aligned commercial banks (e.g. Capitec and the African Bank⁵). Disregarding outreach by such institutions reduced outreach in SADC from 3 million to a mere 300 000 (figures do not consider non reporting institutions involved in microfinance) implying a deficient outreach.

Given these facts, these questions are imminent: what form of financing should be availed to SADC MFIs to ascertain financial sustainability? What is the link between the financing structure and financial sustainability? Since microfinance is meant to reach the poor in improving their access to finance, how then should MFIs in SADC be financed to ensure sound outreach is achieved? Worth asking too is the construct of how MFI development phases relate to financial sustainability and financing given the life cycle theory (LCT). The LCT states that MFIs’ management learn through experience and improve risk management techniques as well as financing methodologies culminating in financial sustainability of the same. Questioning if there LCT holds is necessary in making key decisions especially on financing since it contributes to financial sustainability and outreach. Karim et al. (2011) provided statistics showing that the microfinance sector in the region was expanding given the increase in loans and deposits. Contrary to this trend, the number of reporting MFIs has gone down depicting MFI financial un-

⁵ This Bank used to be the largest Microfinance Bank in Southern Africa before its curatorship in 2014

sustainability. Since some of the un-sustainable MFIs have been in existence for quite long, it is worth raising questions on the appropriacy of the LCT in explaining MFI financial sustainability.

Proper MFI financing strategies given the need to attain financial sustainability as well as outreach challenges substantiating the poverty⁶ within the region fits squarely on the unsettled debate on financing structure and financial sustainability of MFIs. Cull et al. (2009:19) noted that “the exact nature of trade-offs in microfinance differ across regions, but meaningful trade-offs need to be recognized and weighed everywhere.” In this realm, refocusing on how MFI financing structure relates to both outreach and financial sustainability in SADC with the intent of informing MFI financing is a worthy cause.

1.3 Objectives of the study

The aim of this thesis is to unpack the relationship between MFI financing structure and financial sustainability noting the founding microfinance mission of serving the poor considering selected SADC MFIs. The thesis comprises studies on:

- 1.3.1 The relevance of the life cycle theory (LCT) in explaining financial sustainability of selected SADC MFIs.
- 1.3.2 The relationship between financing structure and financial sustainability of selected SADC MFIs.
- 1.3.3 The relationship between financing structure and outreach of selected SADC MFIs.

The motivation is to label a financing structure that can spur both financial sustainability and outreach hence an efficient poverty intervention programme for the region. An MFI that is not financially sustainable is not visible in the financial sector in the future thus has no relevance in the financial system. Investigating the proper ways of financing MFIs to further both the outreach and the financial sustainability goes a long way in improving financial inclusion hence poverty alleviation.

⁶ More than half of the SADC population lives on less than USD1 daily (SADC, 2014)

1.4 Research questions

In tandem with the objectives stated in the prior section, the following research questions were put together:

- 1.4.1 How good is the LCT in explaining financial sustainability of selected SADC MFIs?
- 1.4.2 What is the relationship between the financing structure and financial sustainability of selected SADC MFIs?
- 1.4.3 How is the financing structure related to outreach depth and breadth in SADC?

1.5 Contribution of the study

As noted in earlier sections, the role of microfinance in poverty alleviation is only defined where MFIs are financially sustainable. However, evidence cited has it that financial sustainability is a function of how MFIs are financed. Noting the ‘commercialization’ trend in the financing of MFIs in SADC (industry perspective) and non-specification of the financing structure that can proffer financial sustainability (in microfinance literature and empirical work), this thesis addresses such with an inclination towards enhancing outreach (depth and breadth). Meager evidence testifies that this area remains an under-studied area in microfinance. Pursuing such considering a regional perspective is advocated for noting that trade-offs in microfinance are region-specific (Cull et al. 2009: 19).

A key contribution of this study is the testing of the feasibility of the LCT in defining financial sustainability. The intention is to draw lessons from the MFI development trends in SADC thereby allowing for fusion of the same in informing MFI financing noting the need to attain financial sustainability. Devising financing recommendations meant to instill financial sustainability drawing from region-specific LCT evidence is a new dimension in the microfinance field. All the same, considering a region with least enquiry on the subject adds to an objective cause in microfinance.

1.6 Limitations of the study

Though there is limited literature on the relationship between financing structure and financial sustainability of microfinance same as financing structure and outreach, the major limitation of this study was the limited data on SADC MFIs. The initial intention was to cover the SADC

region but the realisation that not all countries in the region had reporting MFIs on the Microfinance Information Exchange (MIX) shifted the focus to selected SADC MFIs. Also, the inconsistency in the reporting of MFIs militated against the effort of amassing a macro panel data set. The study considered a period with a salient MFI reporting incidence in order to maximise data points. Also, the study uses an un-balanced panel data set in interrogating the issues at stake.

Also, whilst MIX data assumed in this study has a self selection bias (only MFIs reporting on the MIX are considered - not necessarily the interity of the SADC microfinance sector), it however remains a dependable source of data on microfinance based studies as evidenced by innumerable recent research work depending on it (Bogan 2012; Sekabira 2013; Quayes 2012; Tehulu 2013; Wagenaar 2012; Zerai & Rani 2012; etc). Reputable organizations such as the World Bank, IMF and CGAP make use of research output from the same database in informing microfinance policy.

1.7 Organisation of the study

The thesis comprises seven chapters arranged as follows:

Chapter One covers the background and problem statement as well as the objectives, research questions and limitations of the study. Chapter Two provides an overview of macroeconomic developments in SADC, and the state of financial development as well as the gaps thereof. The chapter proceeds to cover the state of microfinance in SADC with regards to financing structure, financial sustainability and outreach. The third chapter covers a conceptual review of sustainability (operational and financial) and the relationship between MFI financing and financial sustainability of microfinance.

The relevance of the LCT in explaining financial sustainability is addressed in Chapter Four whilst the exploration of the trade-off between financing structure and financial sustainability for selected MFIs in SADC is provided in Chapter Five. Chapter Six delves into financing structure and outreach (depth and breadth). Chapter Seven presents the summary of all the findings, conclusions and suggests recommendations on the probable financing structure relevant in furthering financial sustainability and outreach.

CHAPTER 2

FINANCIAL DEVELOPMENT AND THE SCOPE OF MICROFINANCE IN SOUTHERN AFRICA DEVELOPMENT COMMUNITY

2.1 Introduction

Having justified the need to pursue the relationship between MFI financing structure and financial sustainability in chapter one, this chapter provides an overview of the SADC region in relation to macroeconomic performance, levels of financial development, the gaps thereof hence streamline the role and scope of microfinance in SADC. The role of microfinance in improving financial development given the gaps in financial development is explained. The scope of microfinance in relation to level of financial sustainability, financing and outreach same as challenges form an essential element of this chapter. The history of the region is also chronicled in this chapter to hint on the constructs governing the regional bloc.

2.2 History of Southern Africa Development Community

Southern Africa Development Community (SADC⁷) is a re-branding of Southern African Development Coordination Conference (SADCC) founded in 1980. SADCC in turn owes its origins to the Front Line States (Angola, Mozambique, Botswana, Tanzania and Zambia) which pursued political independence of Southern African countries. SADCC was bent on economic development through adopting regional integration and lowering economic dependency on the then apartheid-run South African government. The treaty-based SADC bloc was born out of the transformation of SADCC in 1992 with the newly independent member countries joining the bloc in subsequent years (Burgess 2009). The bloc currently consists of fifteen countries namely: Angola, Botswana, DRC, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe (SADC 2016).

SADC has a history of countries that experienced protracted war periods as well as apartheid. Of note is Angola whose civil war stretched for 40 years whilst the Mozambican one went on for 15

⁷ Note that SADC is part of Sub Saharan Africa

years – starting two years after a ten-year long war for independence. South Africa for 46 years was under apartheid rule - ending in 1994. Colonial legacy has left massive income in-equalities whilst war has destroyed infrastructure adding to the incidence of poverty in the region. According to the International Council of Social Welfare (2014), more than half of the SADC population⁸ lives on less than a dollar per day. Though a crude measure of poverty, the average GDP per capita growth for the period 2003—2013 has been suppressed with that for Zimbabwe being negative (see Figure A1 in Appendices). This statistic is an indication of low standards of living (poverty) as low GDP is reminiscent of low production and unemployment. Lack of political stability has transformed into economic problems for Zimbabwe, Lesotho and Swaziland. Thus poverty and income inequality are permanent marks in this region. South Africa tops income inequality log standings in SADC followed by Namibia, Angola, Lesotho, Botswana and Zambia respectively. One of the contributing factors to the poverty and income inequality has been the limited access to loans from financial institutions (Karim et al. (2011).

2.3 Objectives of Southern Africa Development Community

SADC's vision is to promote economic integration, peace and security, good standard of living and freedom. The regional economic blueprint is detailed in the Regional Indicative Strategic Development Plan (RISDP) as agreed in 2003 (Bank of Botswana 2013). The RISDP forms the basis for the convergence of the regional macro-economy with respect to inflation, public debt, fiscal balance and current account balance. The RISDP is premised on stabilising macro-economic fundamentals thereby catalyzing growth and in turn addressing social ills (poverty, unemployment, inequality, crime and homelessness) (Mahayiwa 2014). The targets set based on the aforementioned constructs of RISDP are shown in Table 2.1.

The RISDP also sets an ambitious minimum annual economic growth rate of 7% for each country in the bloc (Maleleka 2007). Given these macroeconomic targets, it is worthy asking how SADC has fared against the RISDP targets as a way of evaluating macroeconomic developments and performance in the region.

⁸ 2012 estimates stood at 257.1 million people in SADC

Table 2.1: RISDP Macro-economic convergence targets

	2008	2012	2018
Inflation (Annual)	Single digits	5%	3%
Fiscal Deficit	5% of GDP	3% of GDP as anchor, with range of 1%	3% of GDP as anchor, with range of 1%
Public Debt	60% of GDP	60% of GDP	60% of GDP
Current account Deficit	9% of GDP	9% of GDP	3% of GDP

Adapted from: Burgess (2009: 3)

2.4 Macroeconomic Developments in Southern Africa Development Community

Despite positive developments towards owning up on the RISDP macroeconomic benchmarks, the global financial crisis has undone most of the progress achieved by SADC countries. Zyuulu (2010:98) notes that, “as a result of the crisis, countries have witnessed low export earnings, reduced revenue collections and capital flight. Other adverse effects include reduced foreign direct investment (FDI), low international reserves and widening fiscal deficits.” The Bank of Botswana (2013) reiterates that, most SADC countries shied from the attainment of 2012 macroeconomic convergence schedules owing to global shocks and sluggish economic recovery from the financial crisis. Table 2.2 summarises the macroeconomic performance of SADC countries given the RISDP benchmarks as of 2008⁹. This section addresses SADC macroeconomic performance with reference to the RISDP targets.

2.4.1 Growth

Wide-ranging empirical evidence shows the pivotal role growth performs in reducing poverty. Fosu (2011;9) alluding to earlier work by Dollar and Kray (2002) notes that, “...growth is the most powerful, if not the only, agent for poverty reduction.” Evidence from a study by Fosu (2014) confirms that growth has led to a significant reduction in poverty levels in a number of developing economies such as Kenya, Cameroon and Swaziland amongst other countries.

⁹ The year 2008 is indicated in the RISDP as the first deadline for achieving macroeconomic indicators hence its reference in assessing the performance of the SADC macro economy.

However, Fosu still notes a moderate effect of growth on poverty where initial inequality is remarkable (Mongolia, India, Yemen etc). Under such circumstances, growth might not match the increase in inequality thereby overshadowing the increase in income for the poor. Of essence however is that, growth in all instances leads to a positive change in the welfare of the poor.

An earlier study by Moser and Ichida (2001) which focused on SSA substantiated the role of growth on poverty. Their findings stresses that, “A 10% increase in per capita growth leads to a 1% increase in life expectancy, a 3-4% decline in infant mortality rate, and a 3.5-4% increase in the rate of gross primary school enrolment.” The results were confirmed to be robust for high and low income countries same as for slow and fast growing economies. Growth also is celebrated for job creation, initiating human development and improving living standards. Reflecting on the positive role of growth on poverty reduction, it becomes imminent to question how growth is fairing in SADC.

Burgess (2009) observed that, growth in Angola for the period 1998—2008 was pinned more on the firming prices of oil as well as booming production of the same. Growth was also evident in the low income countries¹⁰ in SADC whose average growth rate exceeded 7%. Growth in middle income countries¹¹ was supported by mining in Botswana and Namibia whilst a boost in localised demand in South Africa spurred growth. However, growth in fragile states (Zimbabwe and DRC) remained suppressed as production continued to tumble. The regional average growth for the year 2011 and 2012 was pinned at 5.3% and 4.6% respectively (Bank of Botswana 2013). This aggregate statistic falls below the expected level of 7% as per the RISDP stipulations. For the period 1995—2012, average economic growth for most countries remained below 7% as shown in Figure 2.1.

Of note is that the region comprises countries with weak economies¹². Though the poor performance of the regional economy can be traced back to the global financial crisis, SADC economies too are fragile as exports are commodity-based thereby retarding the region’s growth prospects¹³. SADC countries grew by an average of 4.7% annually for the period 2003—2013

¹⁰ Madagascar, Malawi, Mozambique, Tanzania and Zambia

¹¹ Botswana, Lesotho, Mauritius, Namibia, South Africa and Swaziland

¹² The aggregate GDP stood at \$471.1 billion in 2012

¹³ This is evident where commodity prices are depressed in the global markets

with country specific factors (size of economy, dissimilar factor endowment, variant business environments, and connections to international trade) explaining the growth trajectory. These statistics confirm that growth in SADC trails behind the set RISDP (7%) target as well as other global regions even considering growth estimates of 2013—2015 (Central Bank of Lesotho 2014). South Africa is the largest economy in SADC as it contributes more than half of the average SADC GDP per capita (SAIIA 2014) (see Figure A2 in the Appendices). The sluggish growth can be partly attributed to slow healing of the global economy from the financial crisis as commodity prices remain suppressed (SADC economies are anchored on commodity exports).

Economic growth in SADC thus remains suppressed hence requires spirited effort in stimulating growth. Value addition and beneficiation of primary products is still low in most countries as minerals are exported raw thereby limiting possible economic fortunes that can be derived thereof. Droughts have also perennially affected the region, and in so doing restraining the growth prospects. Intuitively, such growth levels might not translate into meaningful poverty reduction. This resonates well with SADC Financial Inclusion Indaba (2015: 4) which states that

...improvement in an economy does not always translate into adequately sufficient opportunities for the poor and low-income households to improve their standard of living. It is important, therefore, in the pursuance of development for countries to create fully inclusive economic environments in which all people can participate and derive benefit from.

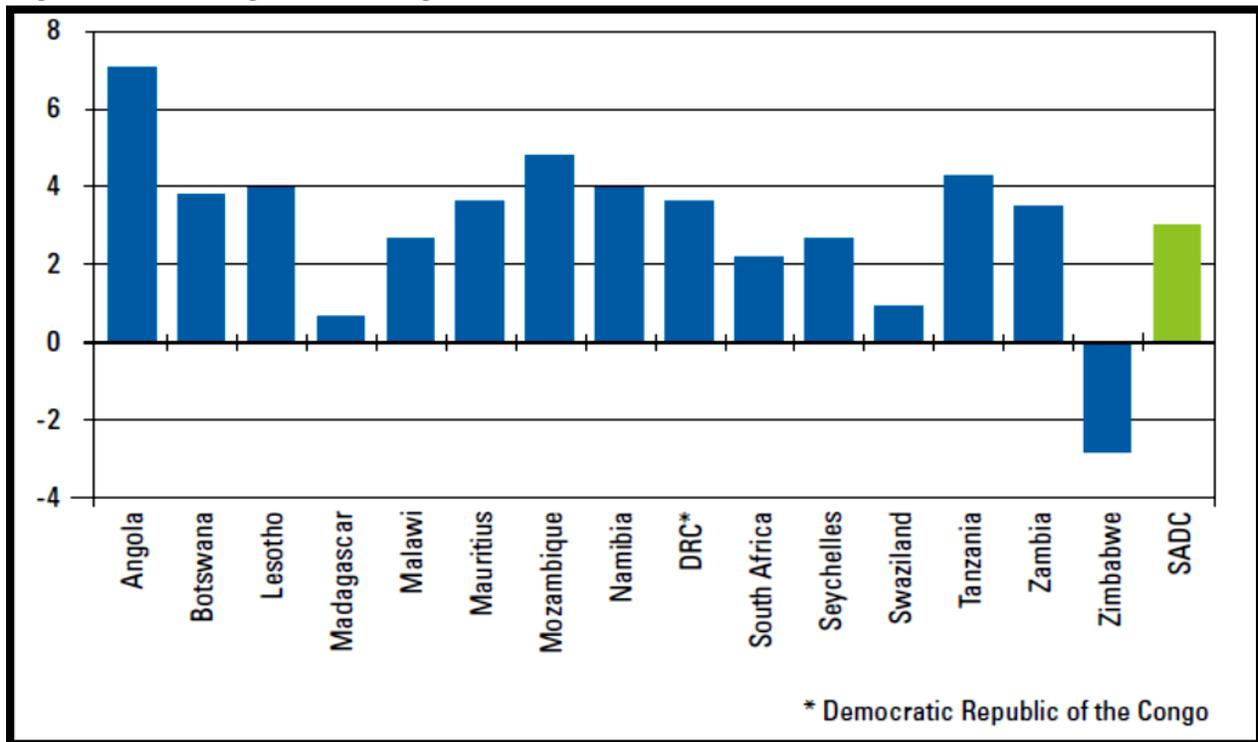
It therefore remains a role for SADC governments to consider inclusive growth strategies by championing innovations and policies that do not wait on growth to ‘cause’ a reduction in poverty, but one that include the poor in growing the economy.

Table 2.2: Performance of SADC countries in relation to 2008 convergence criteria

	Consumer Price Inflation (Annual average percent change)	Government Overall Balance ¹ (Percent of GDP)	Budgetary Position Public Debt (Percent of GDP)	Current Account Balance (Percent of GDP)	Real GDP Growth (Annual percent change)
Reference Value	10	-5	60	-9	7
Middle Income Countries					
Botswana	12.6	-3.1	5.0 ²	7.0	2.9
Lesotho	10.7	6.2	52.9	-3.2	3.5
Mauritius	8.8	-3.4	54.1	-8.7	6.6
Nambia	10.3	-3.3	23.7	2.3	2.9
South Africa	11.5	-0.6	26.9	-7.4	3.1
Swaziland	13.1	-0.1	19.4	-6.4	2.5
Low Income Countries					
Madagascar	9.2	-2.6	30.3	-24.4	5.0
Malawi	8.7	-5.8	10.6	-6.3	9.7
Mozambique	10.3	-4.0	59.8	-12.6	6.2
Tanzania	10.3	0.0	39.1	-9.7	7.5
Zambia	12.4	-1.5	20.0	-7.4	6.0
Fragile Countries					
DRC	18.0	-0.1	101.4	-15.4	6.2
Zimbabwe ³	10452.6	-1.8	n.a.	-1.4	-6.1
Oil Exporter					
Angola	12.5	12.4	11.0	21.2	14.8
SADC ⁴	11.6	1.5	26.9	-2.5	5.3
Sub-Saharan Africa ⁴	11.6	2.1	30.3	-1.3	5.4

¹ Overall balance including grants
² Financial year 2008-09
³ Estimates for 2007
⁴ Weighted averages, except for public debt figures which are median levels.

Adapted from Burgess (2009:11)

Figure 2.1: Average economic growth rates for SADC countries (2003-2013)

Source: SAIIA (2014:16)

2.4.2 Inflation

SADC average inflation for the decade ending 2008 was within the single digit range indicating stability of prices. Inflation pressures in the region are normally spurred by oil prices since most countries in the bloc are net oil importers. The Central Bank of Lesotho (2014) notes that droughts, energy costs and food prices are the main inflation drivers in the region. Fluctuations in food prices and energy have an effect on the Consumer Price Index (CPI) given the weights of the same in the index. Wage hikes, high utility charges and instability in exchange rates especially against the USD affect the regional inflation rates (SADC 2012).

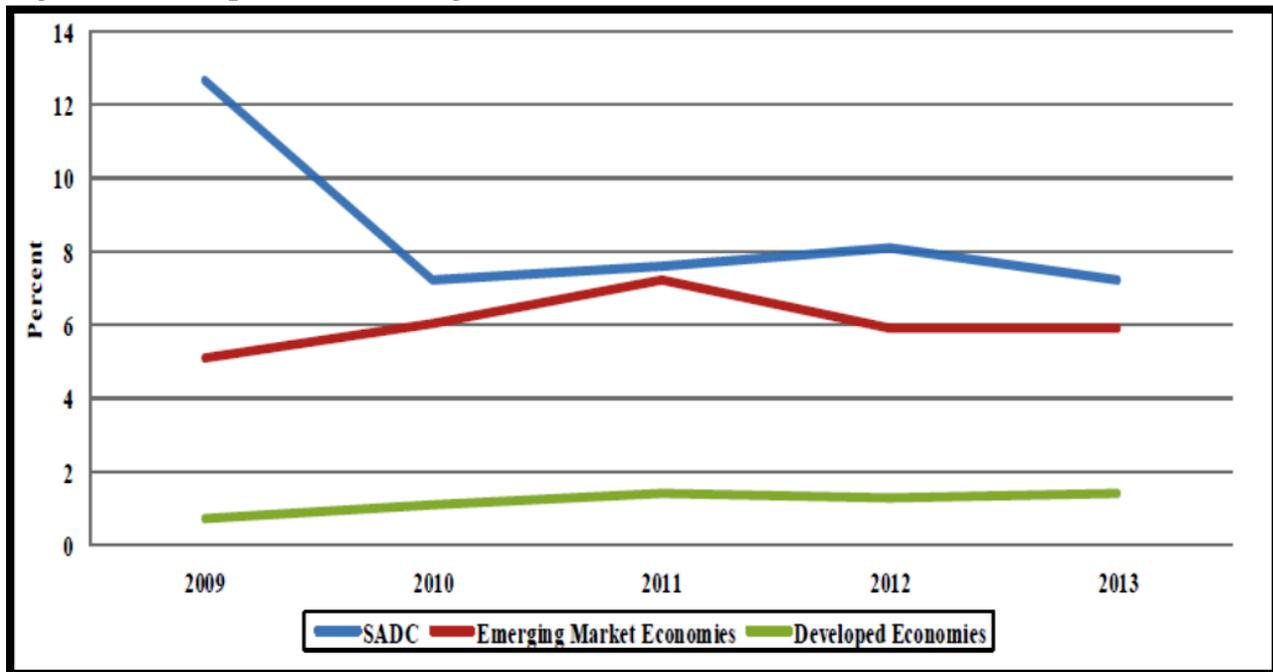
Quasi-fiscal operations by the Reserve Bank of Zimbabwe (RBZ) fuelled hyper-inflationary pressures prior 2009 in Zimbabwe. DRC and Angola recovered from triple-digit inflation as they picked-up from localised conflicts (Burgess 2009). These two countries (DRC and Angola), though grossly endowed with natural wealth (diamond, oil, cobalt, zinc and gold) have continuously suffered from the ‘paradox of plenty’ as warring keeps erupting (BBC 2012). Low

income countries managed to keep prices stable while the introduction of the multi-currency era in Zimbabwe in 2009 facilitated price stability. The regional average inflation has continued to plummet (6.6% in 2013 from 8.0% in 2012) despite double inflation figures recorded in Malawi¹⁴ triggered by unstable food prices.

Though the single digit inflation rates show a significant milestone achieved towards the RISDP stipulations, the regional average inflation rate is still high when compared to other global regions (Bank of Botswana 2013). The 3% annual inflation target by 2012 as per the RISDP targets was met by only three countries (Mauritius, Mozambique and Zimbabwe). Also, lending rates have remained high thereby hindering borrowing and investment (SADC 2012) (the lending rates from 2004—2013 are shown in Table 2.3). Faltering growth in the region thus can be partly explained by suppressed investment given the high cost of capital. Figure 2.2 compares the trajectory of average inflation in SADC, emerging markets and developed economies for the period 2009—2013. Further illustrations of how the average inflation rates per country relate to convergence targets are provided in Figure 2.3.

Recent evidence by Kasidi (2013) on the role of inflation on growth focusing on Tanzania noted the harmful effect of inflation on Tanzanian growth for the period 1970—2011. Though some studies mooted that inflation is healthy for growth unless it goes beyond the threshold levels, Bittencourt et al. (2013) found evidence supporting that SADC inflation levels for the period 1980—2009 defied the Mundell–Tobin effect. The Mundell–Tobin effect states that, inflation is conducive for growth through the holding of assets when inflation rises. Essentially, capital formation (holding of assets) is affected by the increase in inflation implying a reduction in investment. Low investment in turn entails low growth. The study implores the deliberate effort by SADC governments to pursue stable macro-economic environments as turbulent inflation affects investment and growth.

¹⁴ Malawi adopted a free floating exchange rate regime in 2012

Figure 2.2: Comparison of average inflation trends

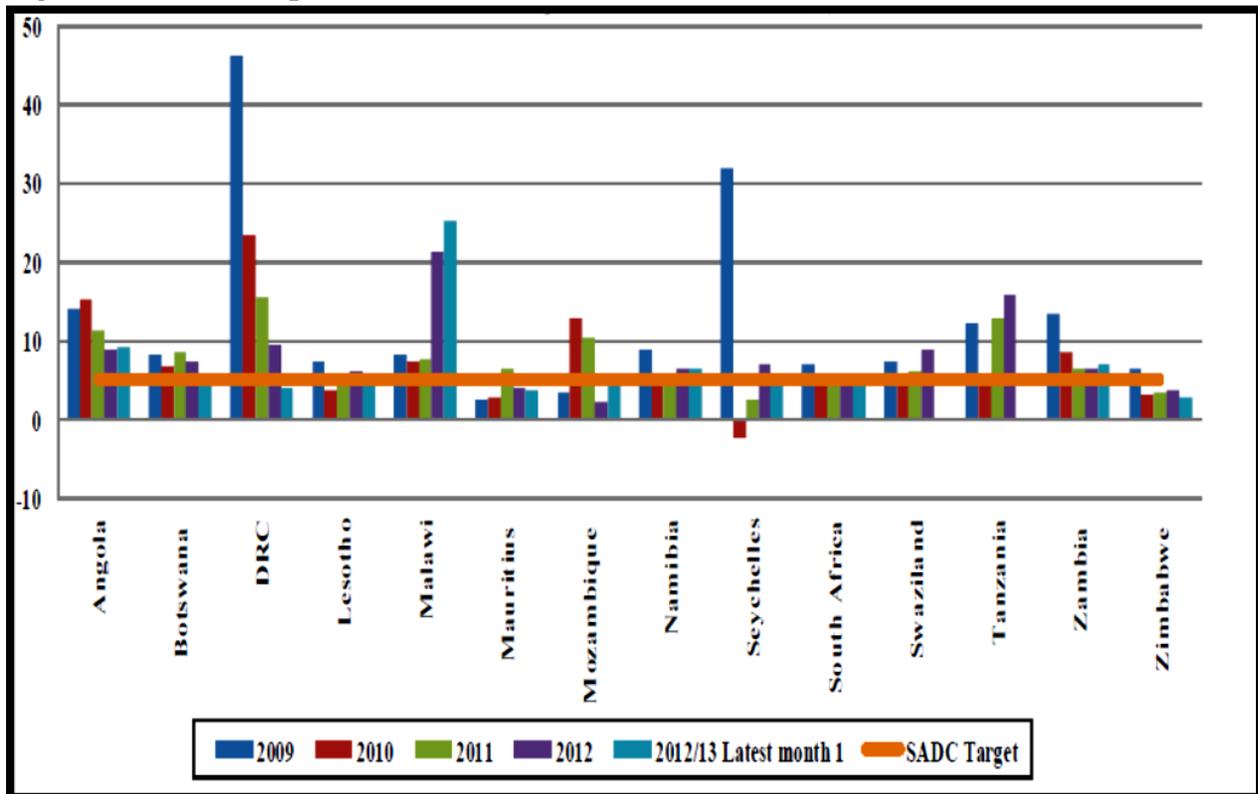
Source: Bank of Botswana (2013:9)

Table 2.3: Minimum lending rate in SADC, (%), 2004 – 2013*

COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Angola	70.4	43.2	15.3	13.9	12.0	15.6	19.0	14.4	15.3	15.1
Botswana	15.8	16.0	16.5	16.0	16.5	11.5	11.0	11.0	11.0	10.2
DRC	-	-	-	45.4	41.2	44.4	69.8	44.7	40.6	-
Lesotho	12.2	11.5	13.5	15.4	16.6	11.7	10.5	10.5	9.9	9.9
Malawi	10.5	27.5	23.6	20.1	19.9	19.9	18.1	18.1	36.2	37.8
Mauritius	7.8	9.2	10.7	11.4	9.1	8.1	7.1	7.5	7.0	6.3
Mozambique	20.6	19.2	20.3	18.8	18.0	15.2	19.0	19.1	15.5	15.0
Namibia	12.2	11.9	13.8	15.3	15.3	11.3	9.8	9.8	9.5	9.3
Seychelles	9.9	10.1	11.6	11.3	16.2	13.5	11.5	11.4	13.6	11.7
South Africa	11.0	10.5	12.5	14.5	15.0	10.5	9.0	9.0	-	-
Swaziland	11.0	10.5	12.5	14.5	14.5	10.0	9.0	9.0	8.5	8.5
Tanzania	14.8	15.0	16.8	15.3	16.0	14.4	13.4	14.2	14.1	13.8
Zambia	29.8	27.6	21.6	18.3	20.8	22.7	19.4	17.0	-	-

*Data for Madagascar and Zimbabwe are missing
Source: SADC Statistics Yearbook (2013)¹⁵

¹⁵ Available online on: <http://www.sadc.int/information-services/sadc-statistics/sadc-statistics-yearbook-201/>

Figure 2.3: Inflation performance in SADC (2009-2013)

Adapted from Bank of Botswana (2013:21)

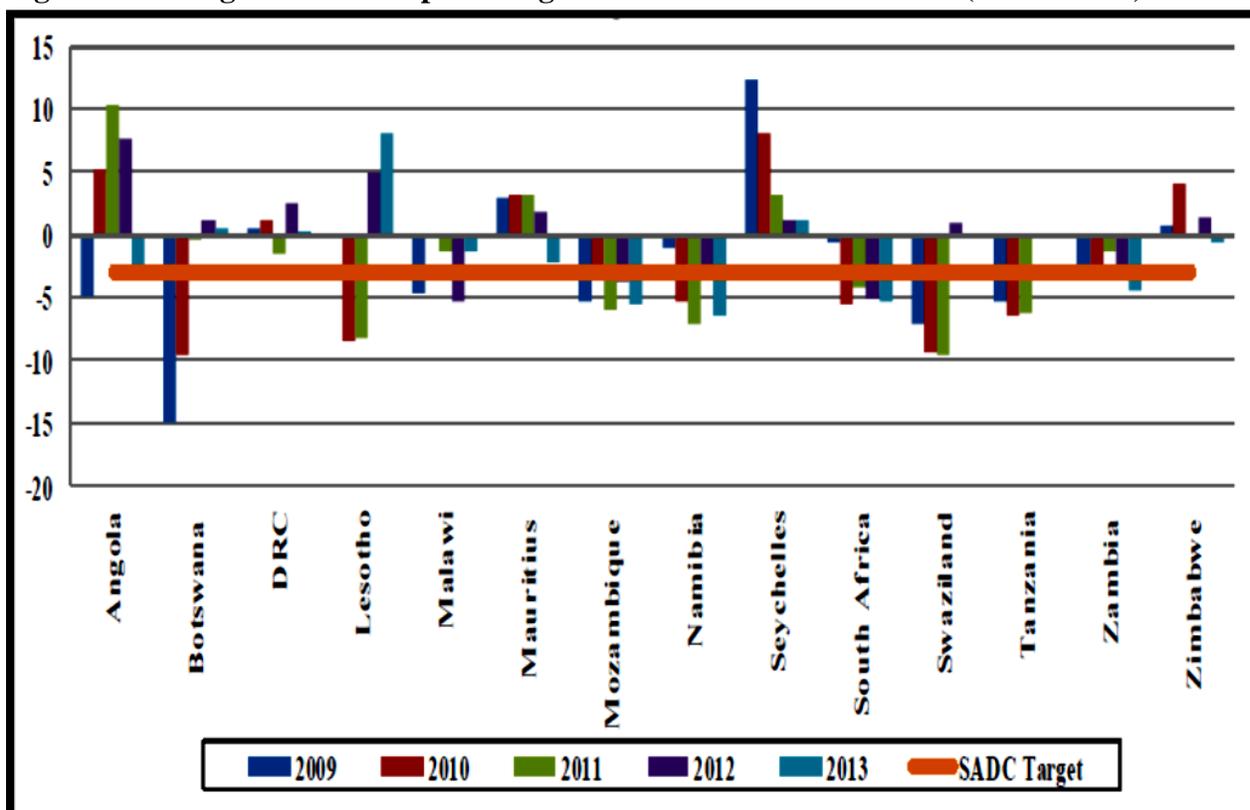
2.4.3 Fiscal balances

The RISDP set a target of less than 3% budget deficit as of 2012. A number of countries performed well with regards this expectation. Domestic resource mobilisation is the main source of improvement in the fiscal performance for most SADC countries whilst grants edified the position of low income countries in the bloc. Grants lessen public borrowing hence helps in lessening deficits. Oil revenues spurred the improvement in the fiscal status of Angola whilst revenue sharing in the Southern African Currency Union (SACU) given firming domestic demand in South Africa benefitted Botswana, Namibia, Lesotho and Swaziland. Expenditure has increased in low income countries in SADC owing to a boost in grants (Bank of Botswana 2013).

South Africa and Malawi recorded budget deficits beyond 3% as expenditure kept growing in 2012. Budget deficits are spawned by the need to address social and infrastructural needs (Bank of Lesotho 2014). Malawi's case was further influenced by the withdrawal of grant aid. DRC,

Seychelles, Zambia, Zimbabwe and Mauritius met the 3% budget deficit consistently from 2009—2012. Political stability and apt economic policies¹⁶ during the Government of National Unity (GNU) in Zimbabwe brought good economic fortunes. Figure 2.4 details the fiscal performance of SADC countries with regards budget deficits for the period 2009—2013. See Table A1 in the appendices section for a breakdown of fiscal revenues and expenditures by country as of 2008.

Figure 2.4: Budget deficit as a percentage of GDP for SADC countries (2009—2013)



Source: Bank of Botswana (2013:23)

Though evidence on the effect of budget deficits on growth remain in controversy, SADC (2016) align to the fact that, “...Large budget deficits can be detrimental to an economy if they are sustained for long periods.’ The same online source points out that, most SADC countries have been affected by low trade which ensued after the 2008 Global Financial Crisis leading to persistent budget deficits. Fatima et al. (2012) recommended that, governments must pursue

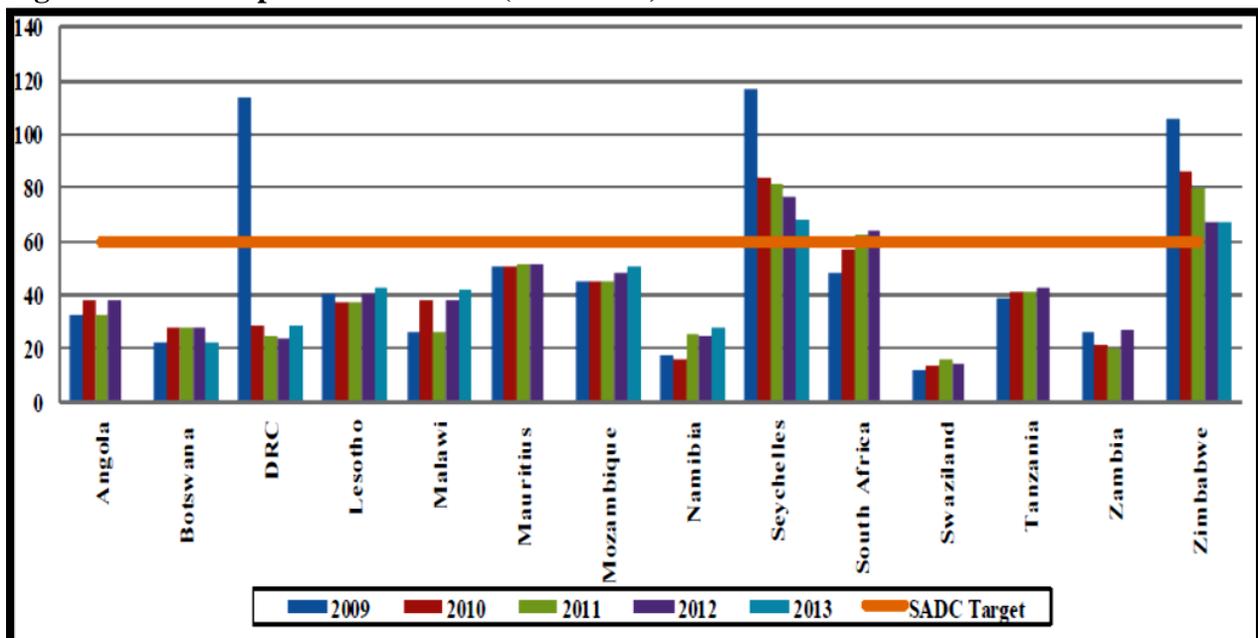
¹⁶ STERP – Short Term Economic Recovery Program and the Medium Term Economic Recovery Program (MTERP)

policies that keep budget deficits within a certain continuum for growth to be realized. Van an Sudhipongpracha (2015) weighed in by discouraging an expansion of budget deficits but rather the promotion of an efficient use of resources amongst other ways of promoting growth. It remains a mission for SADC to ensure that the funding of budget deficits does not crowd-out the private sector same as constraining growth.

2.4.4 Public debt

The Central Bank of Lesotho, (2014) confirms that, SADC countries have done well in achieving below 60% in public debt. Statistics show that the average public debt stood at 37.2% of GDP as of 2013 up from 35% in 2012. Though the Zimbabwean government adopted an Accelerated Arrears Clearance and Debt Development Strategy (ZAADDs) its public debt still exceeds 60% same as that of Seychelles. The ZAADDs is expected to reduce public debt to manageable levels whilst Seychelles seek to reduce its public debt to 18% by 2018. Low income countries that benefitted from the HIPC (Heavily Indebted Poor Countries)¹⁷ and the Multilateral Debt Relief Initiative (MDRI) recorded low public debt. Growth and better fiscal positions also lowered public debt for medium income countries.

Figure 2.5: SADC public debt levels (2009-2013)



Adapted from Central Bank of Botswana (2013:23)

¹⁷ DRC, Madagascar, Malawi, Mozambique, Tanzania and Zambia are HIPC counties in SADC (IMF, 2014).

Salient revenues from oil sales helped Angola to be in a surplus from 2009—2013 (Bank of Botswana 2014). Burgess (2009) noted that, the median debt for SADC countries went down from 91% in 2000 to 27% in 2008. By 2012, the average public debt for SADC stood at 41.7% slightly above the 40.8% average of 2011 (Bank of Botswana 2013). Figure 2.5 summarizes public debt levels in SADC.

A 2014 study by Veiga et al. on 52 African countries for the period 1950—2012 notes that, public debt got a threshold beyond which it overturns growth. With regards SADC, Veiga et al. (2015:1) identified that “...when the ratio of public debt/GDP is below 30% of GDP, the maximum average growth (6.8%) is achieved at an average inflation rate of 11%. The high level of public debt is reflected in reduced rates of economic growth and increasing inflation.” Pereima et al. (2015) also noted the aspect of there being a threshold beyond which public debt records a negative effect on growth. However, Calderon and Fuentes (2013:1) connotes that, high public debt backed by sound policies explain the positive growth in highly indebted developing countries same as developed countries. They assure that, a reduction in public debt coupled with good policies increases growth. Given these findings, it is apparent that SADC countries ought to reduce their public debt as it is in excess of the 30% hinted by Veiga et al. Public debt crowds out private investment and leads to an increase in interest rates thereby limiting growth in the long run.

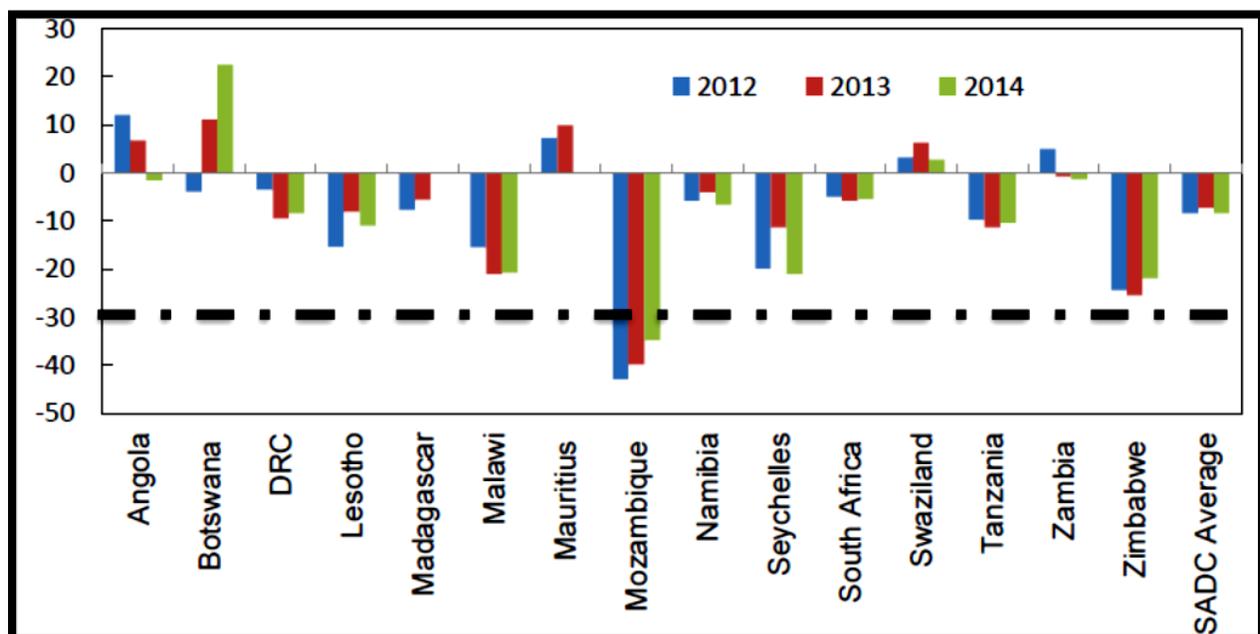
2.4.5 Current account balances

The RISDP target for this variable was set at 9% as of 2012. The average current account balance for SADC was in the negative and the gap widened with a record of 6.9% in 2010, 7.3 in 2011 and 8.4% for 2012 and 2013. Zimbabwe, Tanzania, DRC, South Africa and Malawi account for the widening deficit in the region. Positive balances are evident in Angola, Botswana, Mauritius, Swaziland and Zambia. The remaining countries are within the prescribed range of less than 9% (Angola, DRC, Lesotho, Madagascar, Mauritius, Namibia, South Africa, Swaziland and Zambia) (Bank of Lesotho 2013). Figure 2.6 details the current account performance of SADC countries.

The extent of the current account deficit depicts a country’s economic health. Whilst a current account deficit might have a positive impact on growth (through the importation of capital

goods), current account deficits can erode the value of a country's currency as well as adding to inflationary pressures if not put under check. In light of the worsening current account deficits in most SADC countries; Banque Centrale du Congo (2015), Lebe et al. (2009) and Clark et al. (2015) prescribe the promotion of exports (improving international competitiveness), attracting FDI (adopt investor friendly policies), reducing reliance on imports as well as incentivising saving through the establishment of strong bond and equity markets. In this regard, most SADC countries are still lagging behind given the under-developed capital markets (Jefferies 2009) which continuously penalize investment and growth.

Figure 2.6: Current account balances for SADC countries (2012—2013)



Source: Banque Central du Congo (2015:18)

The overall SADC macroeconomic performance is not satisfactory as only DRC met all the 2012 macroeconomic convergence targets with regards to inflation, budget deficit and public debt levels. Nine countries managed to meet two of the macroeconomic convergence targets whilst five countries only satisfied only one of the targets¹⁸. With respect to inflation, only two countries (Zimbabwe and DRC) attained the 2012 3% target whilst Mauritius, South Africa, Tanzania and Zambia failed to meet the 3% budget deficit target. SADC countries performed better in respect of public debt as only Seychelles and Zimbabwe were out of the 60% prescribed

¹⁸ These are inflation, budget deficit and public debt targets as at 2012 as set out in the RISDP

range. Table 2.4 summarizes the SADC macroeconomic performance. Appreciating the regional macro economy is vital in understanding the contribution of the same in the state and development of microfinance as well as the contribution of microfinance to growth.

Table 2.4: Summary of macroeconomic performance against 2012 convergence criteria¹⁹

Country	Inflation (≤ 3%)	Budget Deficit (≤ 3%)	Public Debt (≤ 60%)	2013 Targets Achievement
Angola	X	√	√	2/3
Botswana	X	√	√	2/3
DRC	√	√	√	3/3
Lesotho	X	√	√	2/3
Madagascar	X	√	√	2/3
Malawi	X	√	√	2/3
Mauritius	X	X	√	1/3
Mozambique	X	√	√	2/3
Namibia	X	√	√	2/3
Seychelles	X	√	X	1/3
South Africa	X	X	√	1/3
Swaziland	X	√	√	2/3
Tanzania	X	X	√	1/3
Zambia	X	X	√	1/3
Zimbabwe	√	√	X	2/3
Total	2/15	11/15	13/15	

Source: Bank of Botswana (2013:24)

2.5 Macro-economy and microfinance

Growth – one of the popular macroeconomic variables has a momentous positive impact on MFI financial sustainability, default rates and loan size growth (Ahlin et al. 2011). Intuitively, depressed growth implies deplorable levels of MFI financial sustainability as default rates soar. Growth is reportedly significantly related to growth of loan sizes as micro, small and medium enterprises (MSMEs) are motivated to enlarge their profitable operations under positive growth hence demand lumpier loans. The higher returns from prospering MSMEs' operations in turn

¹⁹ X denotes failure to meet macro economic convergence criteria and √ denotes that a country met the macro economic convergence criteria.

enable them to pay back loans taken from MFIs thereby lowering default rates. This consolidates the financial sustainability of MFIs. Ahlin et al. (2011) also notes that, growth warrants MFIs to charge higher interest rates on loans as clients (small businesses) can afford to repay transforming into profits for the MFIs hence promote financial sustainability. MFI financial sustainability is celebrated for backing impact (Quayes 2012; Paul 2010) since MFIs are able to reach more clients (the poor and the MSMEs) buoyed by profits which finance further outreach in an economically viable manner (Murdoch 2000).

Mahayiwa (2015) observes that inflation has a threshold beyond which it retards growth. Whereas steady inflation is health for growth, higher and volatile inflation breeds uncertainty manifesting in subdued growth (Makuria 2013). From the cost of capital perspective, high inflation lessens investment as only high-return investments ought to be considered if positive returns are to materialise. Therefore extreme inflation suppresses investment leading to poor growth. Poor growth translates into heightened default rates and poor quality loan portfolios thereby pinning down MFI financial sustainability and outreach (Imai et al., 2011). Hermanto and Astuti (2013) consolidated the position that, high inflation triggers high non-performing loans (NPLs) for MFIs.

The pursuit of stable macroeconomic fundamentals is backed by the need to foster financial development which in turn spur economic development hence poverty reduction. Citing Huybens & Smith; Mahayiwa (2015) observe that financial sector development is hindered by unstable macroeconomic fundamentals²⁰. This explains why the SADC Protocol on Finance and Investment values single digit inflation figures in the bloc amongst a number of macroeconomic performance measures. Given the poor showing by most SADC countries with respect to macroeconomic performance targets, it becomes apparent to check the progress made in developing the financial sector given the need to allow for both investment and the financing of growth. Though macro-institutional factors are critical in defining financial sustainability and outreach of MFIs, the macroeconomy is critical in delineating not only the viability of MFIs but the development of the financial market (Imai et al. 2013).

²⁰ Inflation remains one of the troublesome macroeconomic variable which few countries have managed to fully control in SADC thereby weakening financial markets

The existence of MFIs in the financial market edifies financial depth which also endorses lower operating costs and lending rates (owing to competition) thereby benefiting the micro-borrowers. These factors bring down default rates hence uphold financial sustainability of MFIs. Imai et al. (2011) provides evidence proving that growth and the ratio of private sector credit to GDP (a measure of financial development) do have a positive impact on the profitability (financial performance) of MFIs, the operating expense ratio and the portfolio quality. Though Imai et al. (2011) accord recognition to macro-institutional factors in fostering financial sustainability, they still uphold that lower default rates under positive growth scenarios builds good portfolio quality. Hermanto and Astuti (2013) concluded that, inflation increases the volume of non-performing loans (NPLs). Souring inflation lowers the profitability of MFIs. With this in mind, it is worth exploring the state of financial development in SADC – noting the scope of the financial markets and institutions as well as the shortcomings of the same.

2.6 Financial development in Southern Africa Development Community

It is a fact that the private sector is a cog that spins economic development. The UNCTAD (2013) notes that it is the private sector that pursues entrepreneurship, innovation, and magnifies domestic production hence international trade. The private sector thus contributes in upping the GDP as well as efficient allocation of resources thereby providing economic opportunities for the poor (Harvard Economic Program 2007). However, for the private sector to flourish, it requires a vibrant financial sector capable not only of facilitating transacting but allowing the sector access to credit (DFID 2004). Pro-poor growth is realised through financial sector development (South African Reserve Bank 2014). The transmission mechanism is, “through the mobilization of savings for productive investment and facilitating capital inflows and remittances from abroad, the financial sector can stimulate investment in both physical and human capital” (DFID 2014:4). The intuition here is that, economic participants are able to amass savings which coupled with borrowed funds can capitalise start-up micro-enterprises. Micro, small and medium enterprises spawn, “... employment, increase incomes and thus reduce poverty” (SARB 2014:7). Financial development thus is essential in stimulating growth (finance growth theory – Schumpeter 1911) whilst growth reduces poverty.

According to World Economic Forum – WEF (2012:4) financial development encompasses

... the factors, policies, and institutions that lead to effective financial intermediation and markets, as well as deep and broad access to capital and financial services. This definition thus spans the foundational supports of a financial system, including the institutional and business environments; the financial intermediaries and markets through which efficient risk diversification and capital allocation occur; and the results of this financial intermediation process, which include the availability of, and access to capital.

Therefore, financial development is accountable for financial inclusion of the poor and MSMEs through financial markets and institutions, financial products and statutory provisions that back the same. WEF (2012) notes that post the financial crisis, financial markets were capable of restraining unemployment through long term sustainable development. Of note is that the regulation regarding the nature and operations of financial markets, financial intermediaries, the financial instruments and the manner of trade is part of financial development. What then is the status of financial development in SADC? Are financial intermediaries, markets and products proffering economic buoyancy to levels that ascertain poverty alleviation?

The financial sector in SADC took a huge transformation in the 80s and 90s when policy reforms were instituted. The reforms were meant to, "...dismantle credit controls, privatize state-owned banks and liberalize interest rates....." (Mahayiwa 2015:2). Albeit such efforts (past and current), the financial sector in SADC remains hugely underdeveloped and thin. Franklin et al. (2012:2) noted that the financial sector in Sub-Saharan Africa, "...remain woefully under-developed relative to the standards of developing countries" irrespective of the policy reforms implemented in such countries. Whilst it is a fact that financial development varies across countries, same as economic growth (WEF 2012), this section tries to delineate the scope of the financial sector in SADC. This goes a long way in understanding whether access to finance and financial services adequately cover the diverse needs of economic agents and the marginalised.

A 2014 study on financial development and economic growth in SADC done by the South African Reserve Bank noted that, both capital and money markets exist in SADC countries though the level of development differs. DRC according to Franklin et al. (2012) has a poorly defined money market whilst that of Lesotho is still developing. Of note is that, the debt market

is also poorly defined especially in Namibia, Mozambique and Swaziland. Jefferies (2009:4) wrote that:

Bond markets in most African countries remain underdeveloped and one of the reasons underpinning the inadequacy of these markets is the lack of institutional and operational infrastructure which in turn leads to low levels of liquidity, a narrow investor base, short maturities on the bonds issued and high borrowing costs. This impacts ultimately the competitiveness and breadth of financial products available to both the corporate and retail sectors of the economy.

This section proceeds by way of considering bond markets, stock markets as well as the banking system in SADC.

2.6.1 Bond market

Jefferies (2009) noted that bond markets have not been popular in SADC given the un-conducive macroeconomic fundamentals (inflation, interest rates and exchange rates) characterizing the region. Bond markets not only in SADC but in Africa remain underdeveloped owing to: non-existence of secondary markets (to provide liquidity to the market) and primary markets in some instances (some SADC governments do not issue bonds), lack of institutional investors (e.g. pension funds) in bonds and institutional infrastructure (rating agencies), poor regulatory framework to protect bond holders as well as lack of familiarity of both governments and investors with debt instruments (KPMG, 2014). KPMG (2014) notes that stock markets are a market for government bonds issued in the greater of Africa. Thus equity markets build the investor base for corporate bonds as well as instilling the habit of dealing in exchange traded instruments. Bonds have not been popular too in SADC as governments have failed to secure a market for their own bonds despite them being the heaviest borrowers. Corporate bonds thus cannot easily be traded where government bonds are absent. It is a realisation that infrastructure that allow for the issuing and trading of bonds is not available in most SADC countries. Thus institutions that back primary issues and those responsible for secondary trading are not in sight. Legal provisions and regulatory structures are absent too to allow for standardised trading and monitoring of bonds. Legal provisions allowing for the protection of bond holders as well as the establishment of sinking funds are either non-existent or weak. Other ancillary structures such as

payment and settlement systems that back the trading of bonds are not in place. Market liquidity is also important just like the availability of skilled personnel to handle the issuing and trade of bonds (Jefferies 2009).

It is against these criteria that only South Africa in SADC has a fully developed bond market of global recognition. Zimbabwe has a well-established bond market which has been operational for a long time though it is losing its lustre owing to economic woes. Fresh bond markets are situated in Angola, Botswana, Malawi, Mauritius, Mozambique, Namibia, Seychelles, Swaziland, Tanzania and Zambia whilst Lesotho is contemplating establishing one. Macroeconomic fundamentals and country specific issues define the development of bond markets (Jefferies 2009). Though bond market capitalisation in South Africa has declined from 39.13% to 37.59% of GDP from 2010-2013, it remains the most vibrant debt market in SADC (KPMG 2014). Trade is conducted through the Bond Exchange of South Africa (BESA) whilst Zimbabwe uses the Zimbabwe Stock Exchange as a secondary market for bonds. However, the hyperinflation and subsequent closure of the stock exchange in 2008 affected the volume of bond trading.

The newly-established bond markets are in their early stages of development. Mauritius recorded a capitalisation of 17% of GDP whilst that of Namibia stood at 12% though liquidity of these markets remain low. This is evident in periods where the government is in surplus thus does not borrow resulting in the scarcity of government bonds in the market. Botswana and Namibia also face the lack of government bonds and liquidity is a perennial problem. Whilst Angola has a number of government bonds, the exchange rate distortions caused by the pegged exchange rate system affect bond trading. By 2009, Angola had plans of establishing a stock exchange amidst restricted participation of foreigners in the bond market. The Bank of Tanzania handles the issuance of bonds with trade being done through Dar Stock Exchange (DSE). The bond market is still as small as 4.1% of GDP. Malawi and Mozambique have small and new bond markets with a single issue having been done in 2008 in Malawi. Mozambique's market is as low as 3% of GDP. The Zambian bond market remains suppressed given the small market whilst the Swaziland Stock Exchange (SSE) facilitates secondary trade of bonds. All in all, the bond market is in its infant stages in SADC – limiting access to debt for both the public and private sector not

to mention the marginalised (Jefferies 2009). Table 2.5 shows the bond market capitalization as a percentage of GDP for selected SADC countries for the period 2010-2013.

Table 2.5: SADC bond market capitalization (outstanding bonds/GDP %)

COUNTRY	2010	2011	2012	2013
South Africa	39.13	34.33	37.23	37.59
Zambia	8.14	9.24	9.91	11.38
Angola	5.68	6.55	4.99	6.03
Swaziland	5.65	5.45	6.38	8.86
Botswana	5.63	6.08	6.32	5.82
Lesotho	1.44	5.08	5.85	5.37
Madagascar	4.94	4.21	5.06	5.33
Malawi	5.02	4.90	2.29	5.42
Mauritius	45.25	43.10	44.17	44.20
Mozambique	4.40	10.63	8.63	8.72
Namibia	16.49	16.81	17.65	14.38

Source: Author's compilation

2.6.2 Stock markets

As of 2011 Angola, Mozambique and Seychelles did not have stock markets whilst Botswana had a small stock market. Lesotho had arrangements underway to operationalise a stock exchange (Franklin et al. 2012). The Maseru Stock Exchange only became operational on the 22nd of January, 2016 operating under the Reserve Bank of Lesotho. This in part explains the low market capitalisation of SADC stock markets. Benimadhu (2012) noted that stock markets in SADC do have few listings compared to developing countries in other regions. As at 2011, Malawi had 14 listed firms whilst Zambia had 20 (see Table 2.6). In the same year, other emerging small markets such as Chile had 229 listings whilst Malaysia had 941. As of 2016, the listings for SADC stock markets have gone down compared to 2011 statistics. However, listings for other selected developing countries outside SADC have continued to sour reflecting growth of such markets (see Table 2.7). SADC stock markets remain un-integrated as individual countries still have controls on capital movement hence there is no cross and multi-listing

(Benimadhu 2012). Tables 2.6 and 2.7 provide a comparison of the listings on selected SADC stock exchanges and that of other developing countries from across the world.

Table 2.6: SADC stock exchange listings for 2011 and 2016 (selected countries)

COUNTRY	2011	2016
Botswana	38	26
Malawi	14	13
Mauritius	87	49
Namibia	32	39
South Africa	406	364
Tanzania	17	21
Zambia	20	22
Zimbabwe	77	63

Source: Author's compilation

Table 2.7: Stock exchange listings for selected emerging economies for 2011 and 2016

COUNTRY	2011	2016
Indonesia	440	518
Sri Lanka	253	294
Chile	229	321
Thailand	545	584
Malaysia	941	811
Philippines	251	314

Source: Author's compilation

The realisation is that, SADC stock markets are still to develop if their impact is to have a bearing on their economies. Table 2.8 shows that, stock market capitalisation and stock market values lag way too low compared to the global average²¹. The stock market capitalisation for Sub Saharan African (SSA) stock exchanges averaged 25.6% compared to the global average of 52.1% pointing to suppressed activity on SSA stock markets. Only large and established

²¹ Note that Sub Saharan Africa is referred to and not necessary SADC

corporates can meaningfully raise capital on such markets implying that MSMEs are excluded. Under such circumstances, access to finance may possibly be through the banks.

Table 2.8: Financial development: world versus Sub-Saharan Africa (2012)

Variable	World (minus Africa)		Sub-Saharan Africa	
	Mean	Standard Deviation	Mean	Standard Deviation
Liquid liabilities / GDP	64.2%	47.4%	27.5%	17.7%
Private credit / GDP	57.7%	45.3%	17.6%	22.7%
Stock Market Capitalization / GDP	52.1%	60.0%	25.6%	43.8%
Stock Market Value Traded / GDP	34.1%	50.9%	6.5%	20.0%
Ln(Population)	2.44	1.59	2.24	1.33
Ln(Population density)	0.44	1.94	0.09	0.12
Natural resources	0.5	2.41	0.15	0.77
Offshore center	4.4%	20.7%	0.0%	0.0%
Ln(Per capita income)	2.25	1.04	0.38	0.94
Population * GDP per capita	0.48	1.35	0.03	0.07
Real GDP growth rate	4.1%	2.5%	4.8%	2.7%
Inflation rate	5.2%	5.2%	9.3%	15.0%
Current Account balance / GDP	0.2%	8.1%	-3.8%	6.7%
KKM index	0.33	0.9	-0.54	0.58
Bank concentration	0.65	0.19	0.81	0.14
Foreign ownership share	27.1%	25.9%	44.4%	24.4%
State ownership share	15.9%	19.7%	13.3%	16.6%
Manufacturing / GDP	16.8%	6.1%	11.0%	7.3%
Secondary/Primary school enrollment	0.81	0.24	0.33	0.18
Roads / Area	1.07	1.65	0.21	0.22
Railroads / Area	0.03	0.03	0	0
Urban population	63.6%	20.7%	36.2%	17.2%
Geographic branch penetration	29.76	80.07	7.97	22.49
Demographic branch penetration	16.51	17.28	2.86	3.64

Source: Franklin et al. (2012:44)

2.6.3 Access to banking services

Access to banking services is high in South Africa, Botswana, Namibia and Mauritius. These countries constitute the middle income class including Seychelles. The access to banking services is critical in fighting poverty as it enhances financial inclusion. Whilst a positive correlation is recorded between deposit accounts and loan penetration and per capita income, banking access in SADC is still hampered by sparse population especially in rural areas where there are few bank branches due to poor physical and legal infrastructure same as competition (SARB 2014).

Access to financial services in SADC has been affected by the involvement of governments in the financial sector. Morduch (2000) note that political manipulation of the financial sector make the poor suffer as there is endemic abuse and corruption in the dissemination of loans. Countries such as Botswana, Malawi, Swaziland, Tanzania and Zambia have state owned commercial banks whilst other countries still control interest rates and transaction fees. Dermiguc-Kunt (2008) insists that governments must only create an enabling environment and incentives for the provision of financial services and never operate financial institutions. A summary of the extent of access to banks and financial services is provided in Table 2.9 and A2 in the appendices section. Evidently, access to banking services is defined in medium income countries (South Africa, Namibia, Botswana, and Swaziland). Low income countries same as previously war-torn countries (Mozambique, Tanzania and Zambia) do have a constrained access and use of financial services as the use of ATMs is still minimal (see Table A2 for statistics on usage and access).

Table 2.9: Banked and unbanked statistics for selected SADC countries (2013)

COUNTRY	Banked%	Non-banked%	Informal only%	Financially excluded%
South Africa	67	6	8	19
Namibia	62	3	4	31
Swaziland	44	6	13	37
Botswana	41	18	8	33
Lesotho	38	23	20	19
Zimbabwe	24	14	22	40
Malawi	19	7	19	55
Zambia	14	9	14	63
Tanzania	12	4	28	56
Mozambique	12	1	9	78

Source: BankSeta (2013:10)

The limited access to financial services is again depicted in low private credit and liquid liabilities. Liquid liabilities entails demand and term deposits (certificate of deposit) as well as funds available for electronic transfer and other forms of deposits denominated in foreign currencies. Low liquid liabilities show a depressed use of the financial institutions by the

population. Table 2.8 shows that, Sub-Saharan Africa²² has a long way to go in improving financial development. Private credit as a percentage of GDP in SSA stood at 17.6% compared to global average of 57.7% whilst liquid liabilities trailed 36.7% behind the 64.2% for the global economies. Whilst South Africa, Botswana, Namibia and Mauritius recorded higher statistics regarding loans extended to the private sector (see Table A2), Dermiguc-Kunt and Klapper (2012) noticed that, such loans are usually concentrated amongst a few wealthy individuals and big corporations. Intuitively, SMEs same as the poor might remain un-served financially despite the salient statistics. Dermiguc-Kunt and Klapper suggested bank account penetration as a better measure of checking whether the use of banking services reaches the marginalised.

Figure 2.7 shows the bank account penetration rate for the world. The figure allows for comparison to be made amongst different regions across the world with regards bank account use. Except for South Africa, SADC countries have bank account penetration²³ of less than 50% of the adults. DRC and Madagascar do have bank account penetration of less than 15% whilst Tanzania, Zambia and Botswana are in the range of 16%-30% bank account penetration. The range 31%-50% has countries such as Zimbabwe, Mozambique and Angola. Amongst the poorest people, the incidence of adults without a formal account is remarkable in Sub-Saharan Africa²⁴ (see Figure 2.8). This authenticates Dermiguc-Kunt and Klapper (2012) assertion that the use of banking and insurance products is minimal in developing countries. On a country by country perspective, financial inclusion varies owing to dissimilar economic growth rates as well as levels of financial development (Karim et al. 2014; Brouwers et al. 2014).

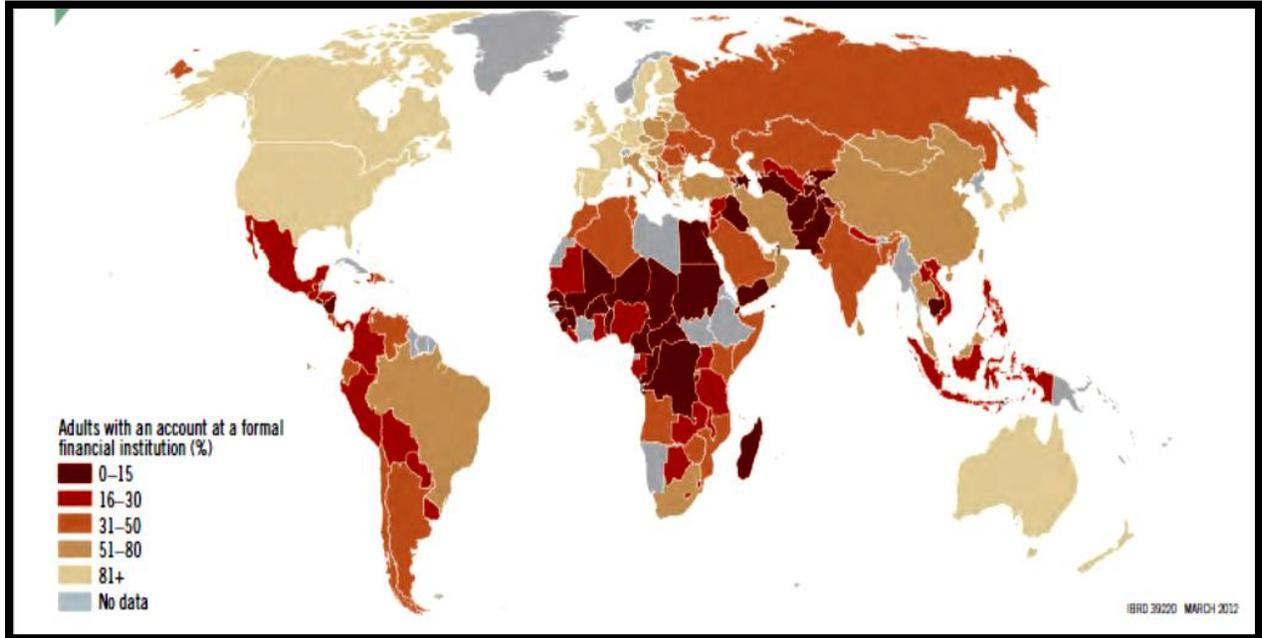
²² Where SADC evidence is not readily available, a Sub-Saharan Africa (SSA) reference is made since SADC is part SSA.

*Statistics for are provided in Table A3 in the Appendices section

²³ Measured as the % of adults with a formal bank account

²⁴ Though not an accurate measure of bank penetration for SADC, it is indicative of what can define SADC since SADC is part of Sub Saharan Africa

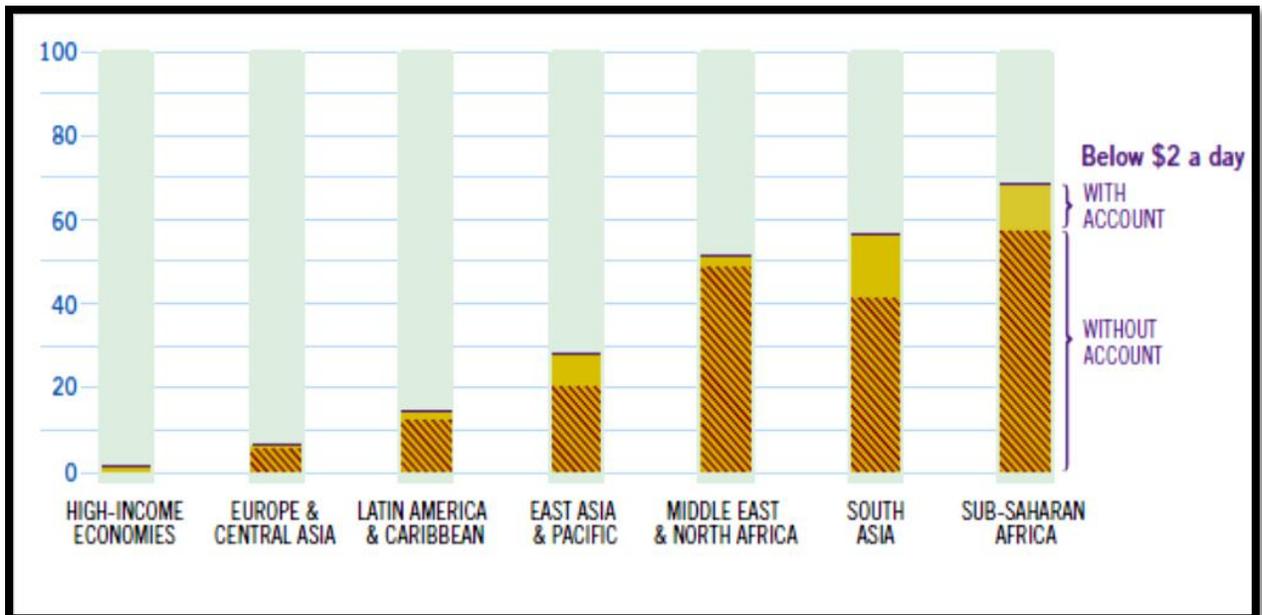
Figure 2.7: Bank account penetration around the world



Source: Demirguc-Kunt and Klapper (2012:12)

Figure 2.8: Account penetration amongst the poorest: A global perspective

Adults living on less than \$2 a day by whether with or without a formal account (as a % of adults)



Source: Demirguc-Kunt and Klapper (2012:13)

Limited access to banking accounts is partly explained by the account opening criteria which normally exclude the poor as they do not meet the income threshold required by banks.

Essentially, the poor are excluded in accessing loans as banks do not give loans to non-account holders and those without past credit records. In the same vein, poor record keeping with respect to small businesses run by the marginalised makes bank account opening and loan application difficult for SMEs. Though it might not be universal in all SADC countries, lack of trust in the banking sector also affects access to bank accounts. In the case of Zimbabwe, previous closure of failed banks and the losses that besieged ordinary citizens has led many to refrain from the use of banks.

On the back of such startling evidence pointing to financial underdevelopment and pitiable reach of the marginalised and the poor it is unavoidable to query the dominant type of financial institutions operational in SADC. The gist is to know the services they provide with the intuition of establishing if MSMEs and the poor are within the scope of such institutions. Table A3 in the appendices section provides a picture of the type of markets, financial instruments and financial institutions operating in the region. The table notes the prevalence of commercial banks in most countries in the region. These banks mostly support the economically active, corporates and industries. They are also mostly located in towns thus are out of reach of remote rural population (Franklin et al. (2012). This partly explains the low geographic bank branch penetration rate of 7.97 for SSA reported in Table 2.6 against a global average of 29.76. Costs of serving sparsely²⁵ populated rural areas by way of establishing branches are usually high hence the urban concentration of banks. The SADC Financial Inclusion Indaba (2015:4) acknowledges that, “Appropriate access and usage of financial services by individuals, households and MSMEs can go a long way in improving welfare and financial viability of enterprises.”

Despite spirited efforts to advance financial inclusion (deregulation of financial markets, private sector innovation i.e. mobile banking, credit facilities and micro-insurance), financial inclusion has remained low in SADC (Karim et al. 2011). Financial inclusion in South Africa and Namibia stood at 63% and 62% respectively (Finscope 2011). Zambia recorded 63% of financial exclusion ahead of Tanzania, Malawi and Zimbabwe whose financial exclusion statistics were 56%, 55% and 41% respectively. The Global Findex Survey recorded an average of 2.74% of adult population above 15 years having an outstanding housing loan in SADC. A constrained access to financial services and products (financial exclusion) has affected the recovery of

²⁵ Ln (population density) is 0.09 as shown in table 2.5

poverty stricken communities. Tracing the theoretical and practical reasons behind the failure of financial markets (bond and equity markets) and financial institutions to uphold growth and access to financial services is unavoidable.

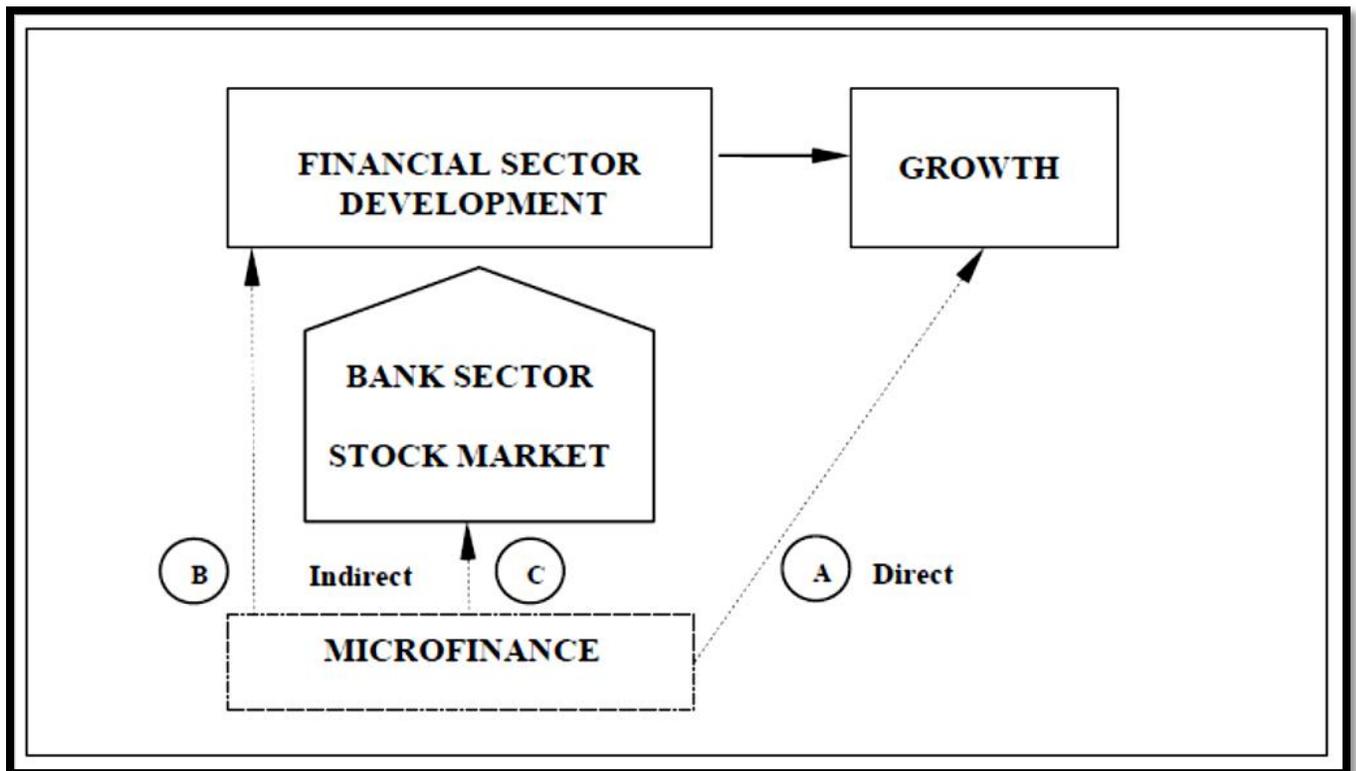
Financial development has been more inclined towards reforms meant to reduce or eliminate restrictions on credit, directed lending same as caps on interest rates with the intent of cultivating retail and consumer credit lines (Barr 2005). However, the liberalisation of financial markets without proper regulation of the markets and institutions has instead ignited financial crises in many developing countries. Financial reforms thus have been linked to poor growth hence a weak impact on poverty (Ikhide 2015). Financial development proxied by bulky credit channelled to the private does not imply a broad use of financial services as only a few connected rich individuals and large corporates may benefit. This is in contrast to financial markets of developed countries that are backed by sufficient adequate legal provisions and regulatory provisions that allow markets and institutions to serve the breadth and depth of the society (Barr 2005). In developing countries, financial development addresses more of the depth than access. Financial institutions and markets are deterred from serving inaccessible and poor clients owing to failure to design products that meet the needs of the poor as well as the inhibitive cost of serving remote societies viably. Subdued access to financial services by MSMEs has dwarfed entrepreneurship, production and emancipation explaining the below-bar growth and poverty²⁶. Access in Sub-Saharan Africa has remained marginal on account of underdeveloped stock and bonds markets as well as absence of alternative sources of finance for MSMEs (Ikhide 2015).

Since new evidence has it that broadening access (financial inclusion) is additive to growth (Ikhide 2015) devising innovative methods of enabling the financially un-served and MSMEs can go a long way in spurring the comatose SADC growth. Thus, "...thinking about financial development from a microfinance vantage point might increase the likelihood that financial development can broadly contribute to poverty alleviation" (Barr 2005:296). Exploring the channels microfinance contributes to both financial development and access (financial inclusion) is obligatory. Maksudova (2010:3) acknowledges the relevance of microfinance as a "new pillar capturing intermediation and directly contributing to financial sector development" and growth

²⁶ SMEs are a link-pin to growth – failure to adequately finance them cripples growth.

(see figure 2.9). However, microfinance has to be pursued sustainably (financial) to warrant impact on poverty through the strengthening of financial markets and institutions. Maksudova (2010) emphasizes that, microfinance can contribute to growth directly (through an increase in production as MSMEs and the poor get credit to finance their businesses) or indirectly (through financial deepening and financial development impacting positively on growth). The SADC Financial Inclusion Indaba (2015) acknowledge that, countries which instituted reforms meant to further inclusive growth bear witness of a marked decrease in poverty, inequality and improvement in standards of living. Maksudova observed a positive Granger causality running from microfinance to growth for low-income (developing) countries. Vibrant microfinance pursued viably can be a game changer for the poor growth and financial development in SADC.

Figure 2.9: Microfinance transmission channels



Adapted from Maksudova (2013:5).

2.7 Microfinance and financial development

The major weakness of financial institutions and markets in developing countries is the failure to serve all economic sectors same as the poor. Microfinance addresses both the depth and width of financial development – thereby assisting financial markets in developing countries to mature

where markets are underdeveloped. The prior sections have shown that bond markets and equity markets are still nascent in SADC whilst access to financial services has remained on the low side – thus giving a chance to microfinance has the possibility of upgrading financial development, depth, access and growth (Ikhide 2015). Barr (2005) identified four ways microfinance can advance financial development in developing countries.

2.7.1 Sustainable microfinance

Sustainable microfinance is capable of attracting private capital which is loaned to the underserved sections of the society and the economy thereby fully serving the market. Financially sustainable MFIs are on record for pursuing impact and scale thus being financially sustainable does not limit outreach to MSMEs and the poor. Given that most economies in Sub-Saharan Africa are dominated by the informal sector (MSMEs), embracing microfinance can grow their economies through magnifying access to both individuals and small enterprises. Evidence buttresses the view that, microfinance can be commercially extended to the poor at scale and still attain economic viability (Ikhide 2015). Microfinance thus bridges the access gap that is not covered by commercial banks thereby “...reinforcing the positive welfare effects of microfinance on low-ability, low-wealth individuals” (Buera et al. 2012:37).

2.7.2 Microfinance as a strategy under poor governance

Financial development flourishes where a number of legal and regulatory conditions ought to be satisfied (Barr 2005). Conversely, microfinance can propagate and expand under bad governance and information opacity (Ikhide 2015). As noted earlier on, most SADC countries do not have credit bureaus thus lending is done without the credit information of clients. This explains why banks do not serve MSMEs and the poor as they are thorough with risk management. However, MFIs can give loans not on the basis of sound legal provisions and credit information but by merely capitalizing on societal values and linkages (social capital). “Microfinance thus can be an important development strategy especially under weak, incompetent, or corrupt governance and in post-conflict scenarios” (Barr 2015:284). Grim regulatory characteristics of developing countries in SADC make it a worthy cause to explore microfinance as a way of enhancing financial development and reaching underserved markets and laying a foundation for the establishment of a strong banking sector.

2.7.3 Developing the banking sector through microfinance

The banking sector require sound legal provisions for them to extend loans, otherwise credit is rationed (Stiglitz & Weiss 1981). Banks thus concentrate their lending to few elite individuals same as dominant corporates as they avoid opaqueness of tiny, asset poor and start-up enterprises. Conversely, MFIs can loan where collateral is absent. MSMEs that do not have a credit history access loans from MFIs. Banks later serve this market when the MSMEs' needs exceed the scope of MFIs. Microfinance thus enables MSMEs and the poor to amass assets that can be used as collateral when the need to borrow from banks arises at later growth phases of MSMEs. It is microfinance that nurtures small businesses and the poor into saving and investing before such businesses and individuals can be handled by formal banks. Microfinance thus "...develop and prove financial techniques for reaching the poor at lower cost and lower risk" which can be replicated by formal financial institutions hence "...help accelerate the pace of development in the banking sector" (Barr 2005:288–289). In this realm, banks have extended their services to cater for MSMEs and low income markets through down-scaling by embracing methods devised by MFIs. Whilst the banking sector is developing, microfinance smoothens consumption, manage risk and encourages a savings culture.

2.7.4 Microfinance as a strategy to advance domestic reforms

The development of the financial sector requires rationalisation of the domestic entities (private sector and the government) in order to strengthen domestic institutions in promoting broad-based financial reach-out. As MFIs serve the vast poor population and MSMEs, they adopt commercialisation by seeking private financing. "...these pressures can help to bolster the constituencies needed to demand improvements in the financial market" (Barr 2005:292). The complexities of effectively supervising and regulating MFIs has the possibility of opening up re-thought supervisory approaches by regulatory bodies and or the central bank. Barr (2005) connotes that commercialisation has seen MFIs graduating into banks thereby pushing governments to do away with interest caps, stringent capital thresholds same as directed lending towards risk-based supervision. Microfinance can also drive for financial market innovation and the development of infrastructure such as credit bureaus. Such initiatives lessen information asymmetry between lenders and borrowers amplifying widespread consumer and retail lending.

Given the afore-mentioned, it is apparent that microfinance addresses access problems, amplify depth, aid financial development same as growth especially where financial systems remain underdeveloped. The ability of microfinance to thrive under poor legal provisions, limiting governance infrastructure and the potential to boost financial development in developing countries fits squarely in the economic set-up of most SADC countries. The WEF, (2012:7) underscores that “by contributing to the diversification of savings and of portfolio choices, microfinance can also increase the return on savings and ensure higher income and consumption opportunities.” In line with the RISDP, “...the promotion of economic growth in the region to ensure poverty alleviation, to support the socially disadvantaged...” can best be achieved through microfinance given the poor financial development in SADC (Genesis Analytics 2004). But, what is the status of microfinance in SADC? What has been done to capacitate microfinance in the region and what challenges are faced by MFIs in SADC?

2.8 Microfinance in Southern Africa Development Community

Though microfinance is widely applauded for advancing financial inclusion and poverty alleviation (Brau & Woller 2004), the worrying fact is that its policies have remained rudimentary in most SADC countries owing to sizeable information gaps (Karim et al. 2014). Enquiry into microfinance in SADC and Sub Saharan Africa at large is limited amidst inadequate and scanty data (Johnson 2015). Major updates on microfinance in SADC are instituted through surveys aimed at reviewing the landscape, regulation, monitoring and support of MFIs under Finscope sponsorship. Such surveys take long to be updated and are still constrained by data problems (Karim et al. 2014). In view of this, this section provides an overview of the status of microfinance in SADC. Outstanding amongst the constituency of the section is the assessment of the financing structure employed by MFIs in the region same as the level of financial sustainability. The various charters under which microfinance exists in the region, constraints faced by MFIs as well as outreach issues are also captured.

Microfinance in SADC comprises an assortment of MFIs that are geographically spread with the intention of serving the poor (Lafourcade et al. 2006). Commercial microfinance has trended in the region as evidenced by the soaring of profit-oriented NGOs serving salaried clients. MFIs do lend to small enterprises too though to a limited extend. Evidence shows that microfinance is a

growing sector with respect to clients served and volume of loans and deposits attracted. MFIs provide payment services, insurance and consultancy amongst the broadening products and services offered by microfinance. Table 2.10 shows the expansion of microfinance activities in the region from 2003–2009²⁷. Competition has also re-defined the microfinance sector as large players in the name of commercial banks are down-scaling in search of new business and new clients. In this regard, volume of loans availed and number of clients served has improved (Karim et al. 2011). Interestingly, deposits exceed the total loan book of the MFIs explaining the role of commercial banks, Savings and Credit Cooperatives (SACCOS) and regulated MFIs in attracting savings (see Figure 2.10). This is in line with earlier evidence by Lafourcade et al. (2006) who realised the distinguished way African MFIs attract deposits compared to other regions. Financing challenges limiting the scope of operations of many MFIs has led them to consider savings as an alternative financing methodology.

Table 2.10: Trend of microfinance growth in SADC

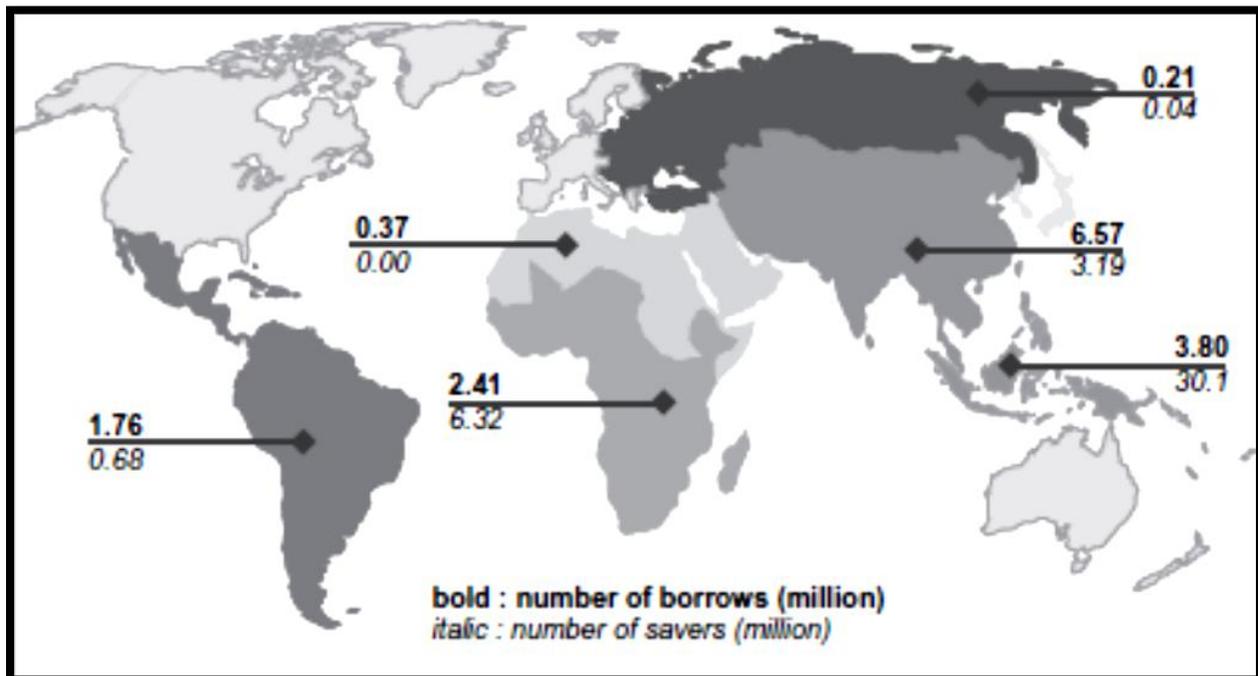
	2003	2006	2009
Number of reporting institutions	43	46	36
Gross loan portfolio (US\$)	77,353,461	275,950,476	1,539,771,910
Number of active borrowers	454,997	972,274	1,444,856
Deposits (US\$)	20,332,032	200,032,149	1,837,952,180

Source: Karim et al. (2011: 11)

Rural population²⁸ in the region is mostly served by NGOs that pursue the social mission. Such institutions are either local or international establishments hence are owned by governments or donor organisations. The only constraint of these NGOs is sustainability as most of them struggle to keep afloat (Karim et al. 2011).

²⁷ The number of reporting MFIs doesn't imply the total number of MFIs operating in SADC, but those which provided information for the compilation of the statistics shown in table 1.0

²⁸ 61% of the SADC population

Figure 2.10: Comparison of MFI loans and savings by global region

Source: Lafourcade et al. (2006:4)

Comparing microfinance outreach in Southern African with other African and global regions show that Southern African region is lagging behind (Figure 2.11). Notable is the role of commercial banks in furthering outreach in Southern Africa as opposed to other African regions²⁹. Worth noting is that the outreach figures in Figure 2.11 include 0.8 million clients served by Capitec Bank implying that disregarding outreach by large Southern African commercial banks paints a gloomy outreach picture for the region. The current regional outreach is affected negatively by the curatorship of the once largest microfinance bank in SADC (African Bank) in August of 2014 (Jones 2014). This bank according to Karim et al. (2011) supported nearly 2 million clients meaning that its curatorship³⁰ grossly reduced outreach levels in the region.

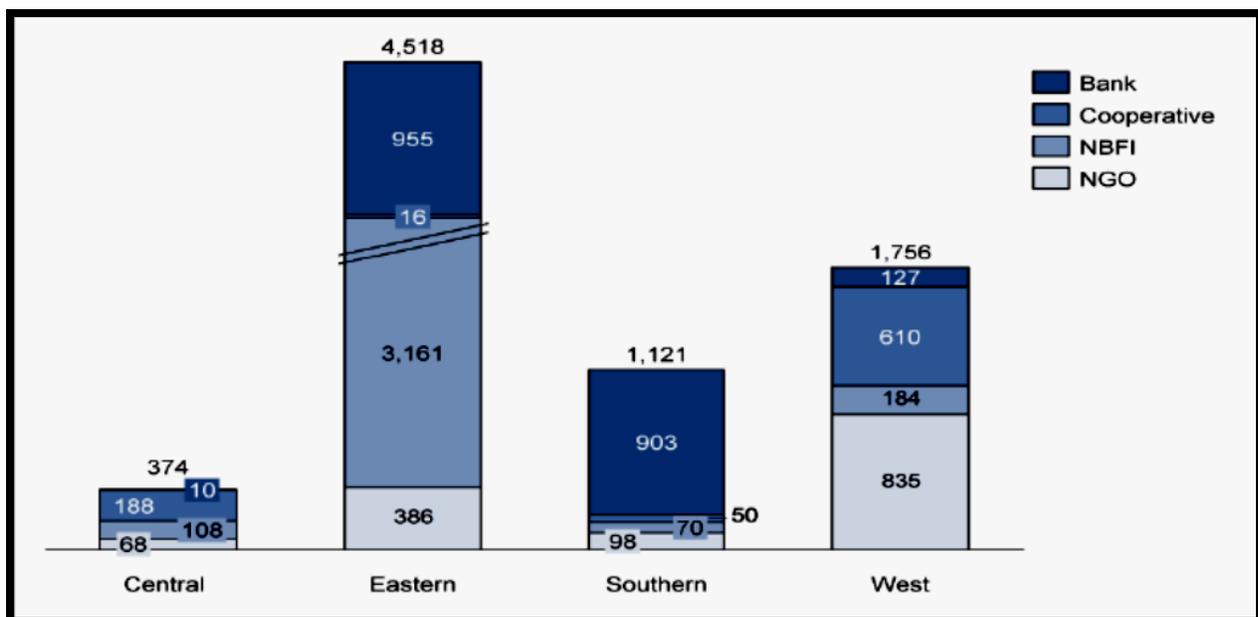
Noteworthy is that outreach (breadth and depth) is dependent on the type of MFI. Lafourcade et al. (2006) highlighted that unregulated MFIs in Sub Saharan Africa are small as they face capital constraints thus accounting for the least outreach compared to SACCOS and regulated MFIs.

²⁹ The outreach figures for Southern Africa exclude clients served by African Bank as it overstated the regional outreach given its massive outreach totaling 1.8 million by then.

³⁰ Curatorship means that it is no longer business as usual especially in reaching out to clients as loan portfolios and the financing of operations have to be monitored diligently by the curator to bring back viability.

Most countries in SADC outlaw attraction of deposits by unregulated institutions. However, the relationship changes when it comes to outreach depth. Unregulated MFIs serve the largest number of the vulnerable, marginalised, and neglected core poor low income individuals in the society. This is mainly because unregulated MFIs include NGOs and institutions that are specifically structured to serve the poor (Lafourcade et al. 2006). Also, the limited financial resources of unregulated MFIs curtail efforts of expanding outreach hence they pursue depth where competition is low.

Figure 2.11: African microfinance outreach as at 2009 (in thousands)



Adapted from Karim et al. (2011;12)

2.8.1 MFI charters and their activities

Whilst there is a number of hybrid MFIs operational in SADC, this section focuses on the most common forms of MFIs, i.e. commercial banks, profit motivated MFIs or Non Bank Financial Institutions (NBFIs), Savings and Credit Cooperatives (SACCOS) as well as NGOs.

2.8.1.1 Commercial banks

Karim et al. (2011) noted that commercial banks have become a dominant part of the microfinance sector in SADC notably in South Africa, Zimbabwe, Angola, DRC, Mozambique,

Tanzania and Malawi. According to CGAP (2010), commercial banks account for 81% and 83% of Southern African total borrowers and savers respectively (see Figure 2.9). Commercial banks involved in microfinance can either be the conventional commercial banks downsizing to cater for SMEs and the poor or the transformation of non-bank MFIs into commercial banks. Services include loaning to salaried low income earners with some banks extending even unsecured loans under group loaning schemes. However, there are microfinance inclined banks in Angola, Mozambique and DRC which particularly serve the poor as the origins of such banks trace back to MFI roots. The institutional metamorphosis of Campion and White (1999) explains the transformation of small MFIs into large institutions over time through observing regulatory requirements in the host country. Commercialisation of MFIs has increased access to both retail and wholesale funds hence commercial banks are capacitated to enlarge their outreach.

2.8.1.2 Non bank financial institutions

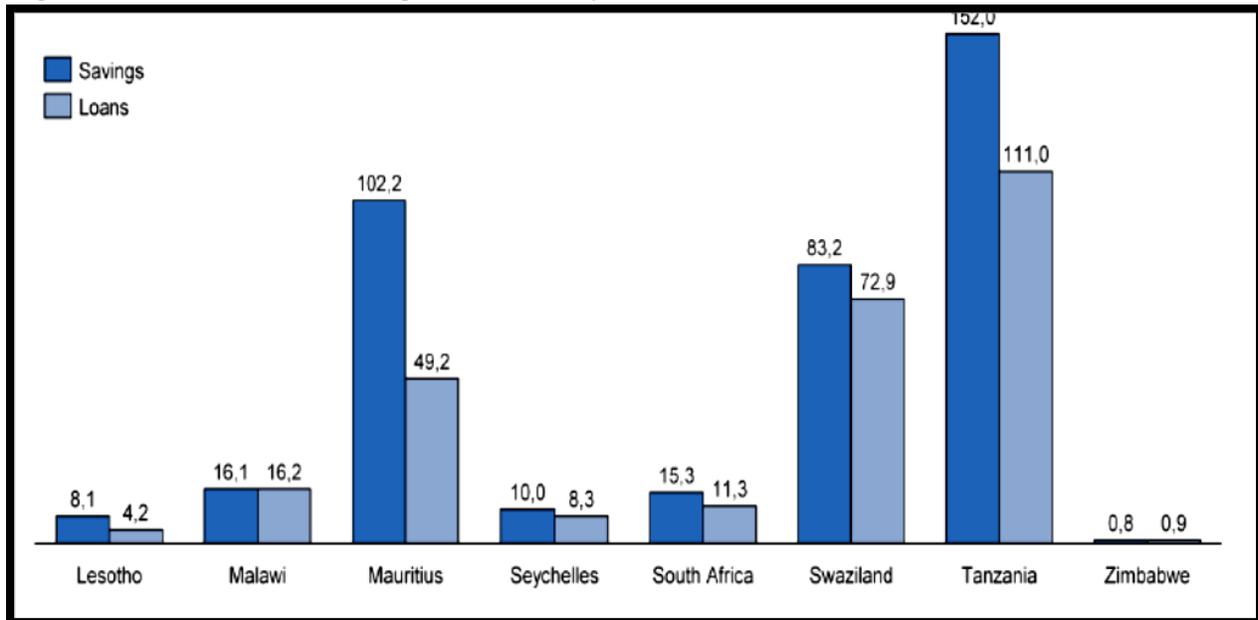
These have been on the increase in SADC and are mostly salary based and operate on commercial basis. The proliferation of these MFIs is linked to commercialization where microfinance is pursued with a commercial mind of earning profits (Kapper 2007). Countries like Zambia, Zimbabwe, Angola, Botswana and Tanzania have seen the increase of such MFIs especially in urban and peri-urban areas. Most profit motivated MFIs institute either group or individual lending methods. Though most loans are granted to micro enterprises (given the lumpier size), most of such loans are meant for consumption as well as enabling clients to either access education or health facilities. Of importance is that, profit motivated MFIs are now the major microfinance players in small economies such as Swaziland, Lesotho and Namibia (Karim et al. 2011). Former NGOs in countries like Zambia (FINCA) and DRC (FINCA and CETZAM) have turned into NBFIs as a way of broadening their financing base as they pursue profits in executing microfinance.

2.8.1.3 Savings and credit cooperatives

Since it is popular with groups of individuals to contribute money, lend it amongst themselves, earn interest and share profits - SACCOS are the most common form of MFIs in SADC though they are most dominant in DRC, Tanzania, Lesotho, Malawi, Swaziland and Mauritius. Despite the volumes of deposits attracted by SACCOS, it still remains difficult to quantify their activities

as they normally do not report to any regulatory authority. This has affected efforts meant to regulate SACCOS. Regulation of SACCOS remains critical as they attract deposits thus the protection of depositors becomes imminent. Small countries such as Swaziland and Mauritius are mostly served by SACCOS. These institutions remain vital in extending microfinance services as they allow the very poor to save and access funds (Lafourcade et al. 2006). Tanzania tops the region with such institutions reaching nearly a million individuals. Figure 2.12 shows outreach by SACCOS for selected countries in SADC.

Figure 2.12: Volume of savings and loans by SACCOS for selected SADC countries



Adapted from Karim et al. (2010:15)

2.8.1.4 Non governmental organisations

They pursue more of rural finance as they are socially oriented. These institutions are either locally or internationally controlled. The scope of outreach of NGOs is poor in SADC compared to other African regions. Tanzania records the highest number of NGOs that are active in deepening outreach. Such institutions chose to remain NGOs thus did not consider transforming into NBFIs owing to prohibitive regulations. South Africa also has big NGOs in the name of Small Enterprise Foundation (SEF) and Marang Financial Services. However, their significance in South Africa is overshadowed given the size of the economy and big microfinance-inclined commercial banks. Mozambique also accounts for surmountable NGO presence in the region

mainly because of the need to address social imbalances created by the 15 year long civil war and humanitarian issues covering health, education and fiscal policy support. NGOs are plausible for maintaining their coverage on the poor and women clients. Table 2.11 summarizes NGO activity for selected institutions in SADC.

Table 2.11: NGO activity for selected NGOs in Southern Africa Development Community

NGO	Country	Active Borrowers	Loan Portfolio (US\$)	Average Loan Size (US\$)	Active Depositors	Deposits (US\$)
PRIDE	Tanzania	72,977	26.9 million	369	92,390	13.7 million
SEF	South Africa	64,030	13 million	204	-	-
BRAC	Tanzania	89,818	10.1 million	112	89,818	2.7 million
FINCA	Tanzania	41,253	7.2 million	175	41,253	1 million
Marang	South Africa	24,522	4.3 million	174	-	-
WDB	South Africa	32,000	3.5 million	108	-	-
FINCA	Malawi	16,689	2.7 million	164	16,689	196,138
CUMO	Malawi	36,261	1.5 million	41	36,261	199,550

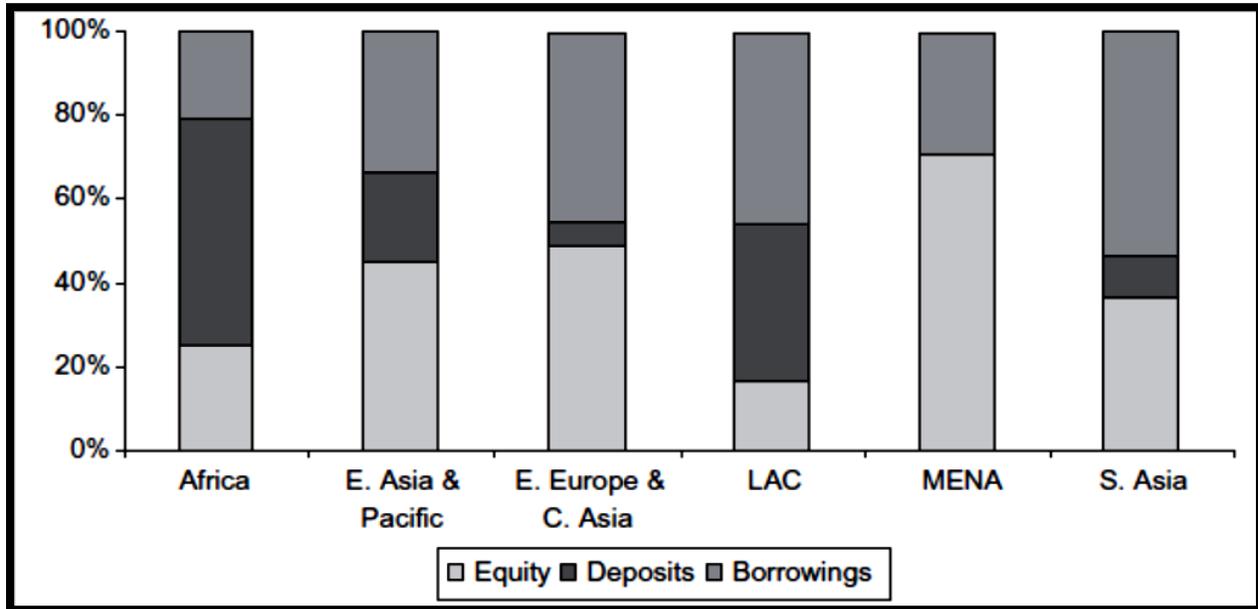
Adapted from Karim et al. (2011;16)

2.8.2 Financing structure

Funding for MFIs in SADC mimics that of commercial banks. It includes deposits, equity and retained earnings as well as wholesale priced funds from wholesale markets. International donor societies, philanthropic individuals and public donations also provide funding to NGOs. Figure 2.13 shows the global distribution of MFI financing options by global regions. Though the distribution does not distinctively identify SADC, Lafourcade et al. (2006) noted that the financing structure for MFIs does not vary much in Africa. The indication thereof is that savings or deposits play an important role in the financing of microfinance activities in the region (see Figure 2.10 which shows that savings exceed loans in SADC). This is explained by a marked increase in regulated MFIs which are capable of attracting deposits same as the existence of many SACCOS and commercial banks (Lafourcade et al., 2006). Attraction of deposits by MFIs has forced regulatory authorities to compel MFIs to seek deposit taking licenses to protect the public. The move to license MFIs comes on the back of a spate of failure of rural banks which

from the start were unsound, thus required supervisory efforts as most of them ended up ‘disappearing.’

Figure 2.13: Breakdown of MFI funding sources (weighted by assets) by global region



Adapted from Lafourcade et al. (2006;9)

Though prudential regulations have been instituted in various countries, they remain ‘expensive and complicated’ to implement for the regulatory authorities. Otherwise, non prudential regulation is advisable especially for credit-only MFIs. A problem however has arisen owing to the manner deposits are defined in various countries in SADC. Collateralised deposits have attracted prudential regulation in most countries though they are meant to ascertain repayment of loans. Against this backdrop, special licenses have been designed for deposit taking MFIs. The gist has been to allow MFIs to have capital provisions different from conventional commercial banks. SACCOS too are not able to attract deposits from non-members since they exist more as non corporate entities (Lafourcade et al. 2006). However, minimum capital requirements are a cost to most MFIs thus limiting the lending ability of MFIs (Karim et al. 2011).

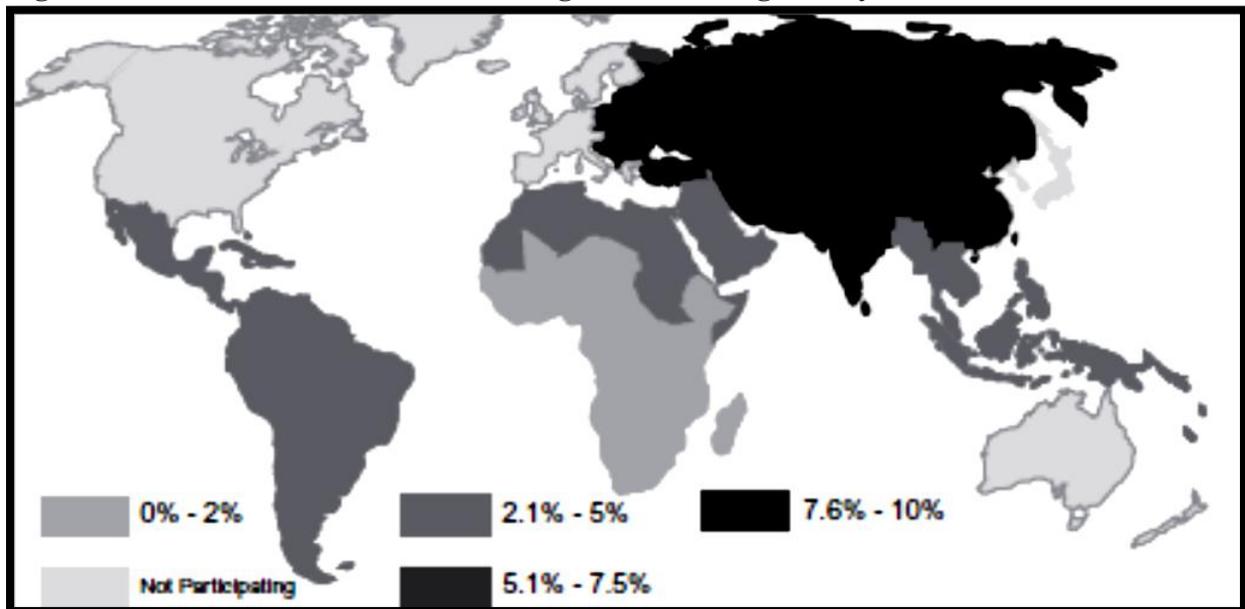
Debt, commonly termed leverage has a limited scope in funding MFIs in SADC mainly due to the cost associated with debt (Lafourcade et al. 2006). Debt or borrowings for most MFIs constitute loans from both localised and international banks; loans provided by private individuals as well as loans from Microfinance Investment Vehicles (MIVs) (Isern & Porteous

2005). Savings, though they are accounted for as liabilities by financial institutions are different from debt as they are normally accessed at a cheaper rate than loans. Noting the low levels of MFI sustainability in the region, debt providers limit their exposures to ailing MFIs. In that respect, debt is mostly used by mature MFIs with proven sustainability records (Kapper 2007; Meehan 2004). MFIs are also funded through equity provided by either owners of commercial institutions or donors and governments for NGOs. Equity is mostly used by unregulated MFIs and NGOs as they cannot access bank loans and savings owing to their ambiguous legal description. This resource is limited and cannot support outreach growth thus is usually used to further outreach depth (Hummels & Millone 2014). Karim et al. (2011) noted that financing remain a challenge to most SADC MFIs thereby affecting financial sustainability of the same.

2.8.3 Financial sustainability

Making use of return on assets (ROA) as a measure of the ability of an MFI to earn positive returns given the expenses it incurs, Lafourcade et al. (2006) showed that Southern African MFIs always attain negative returns³¹. Poor profitability characterizes both small and large MFIs. Fig 2.14 compares the levels of sustainability for global regions.

Figure 2.14: Global distribution of average ROA as weighted by assets



Source: Lafourcade et al. (2006:10)

³¹ Poor performance and low efficiency account for the low returns (Lafourcade et al. 2006).

As shown in Figure 2.14, regional ROA average for SADC ranges from 0% – 2% signalling the unprofitability of the microfinance sector. Soaring financial and provisioning for losses weigh down the operational self-sufficiency measure of SADC MFIs. Mostly the rural areas have low population densities and poor infrastructure that magnifies the costs that MFIs face in serving remote areas. Innovation such as use of technology in extending microfinance products and services (mobile banking) and improved communication lessen such costs to some extent (Lafourcade et al. 2006). However, few MFIs in Africa have taken up this efficiency-enhancing initiative.

Worth noting is that profitability varies with MFI type. Regulated MFIs record the highest average ROA whilst SACCOS report the least average ROA. That also translates into the Operational Self-Sufficiency (OSS) measures which are again high for regulated MFIs compared to cooperatives. Interestingly, unregulated MFIs generate the highest revenues and still incur the most expenses when compared with other MFIs (Lafourcade et al. 2006).

2.8.4 Regulation of microfinance

As a way of improving the manner MFIs operate, several governments in SADC crafted microfinance policies or are in the process of regularising policies (Namibia and Lesotho). Seychelles and Mauritius are the only countries not keen in regulating microfinance activity in their economies. Microfinance associations pressured most governments in SADC to institute microfinance policies as it enhanced new financing opportunities and assured MFIs of sustainability in the long run (Lafourcade et al. 2011).

Regulation of most MFIs is instituted through central banks of countries concerned with the exception of South Africa and Botswana where independent bodies are responsible for the regulation of microfinance (Karim et al. 2014). The rationale is to let credit only institutions to be regulated by independent bodies and deposit collecting MFIs to be covered by the central bank. Regulation usually addresses deposit attraction licences, prudential and non-prudential provisions (Karim et al. (2011).

2.8.4.1 Deposit taking licenses

Legislation in most SADC countries streamline whether an MFI can attract deposits or not. The rationale is to allow only competent institutions to convert from credit-only institutions into stable deposit collecting institutions. Such legislature which provisions for different tiers of MFIs is common in SADC given that countries like Tanzania, Zambia, DRC, Mozambique, Zimbabwe, Malawi and Lesotho apportion microfinance activities to different tiers with deposit attraction requiring a special licence. Deposit attraction remains a key financing option in the region given funding challenges faced by MFIs (Karim et al. 2011).

2.8.4.2 Prudential regulation

Prudential regulation encompasses all regulation that is meant to lessen the failure of deposit-taking institutions (Porteous et al. 2010). Prudential regulation is vital where the failure of one institution might cause market-wide instability. Non-prudential regulation relates to all regulatory provisions meant to protect the clients and to curb financial crimes (CGAP 2012). Both deposit-taking and credit-only MFIs have to meet non-prudential regulations. The realisation from the 2011 Finscope Survey on SADC microfinance sector is that, prudential regulation is mainly for deposit taking MFIs (Cull et al. 2009). Given that the size of microfinance sector cannot have a macro effect if an MFI fails, prudential regulation is meant to protect savers. However, some SADC countries have imposed prudential regulation on credit-only MFIs (Zambia, DRC, Angola and Malawi). Whereas SACCOS are member managed, when they grow large it becomes futile for members to institute objective monitoring. In that regard, 'large' SACCOS are mostly prudentially regulated though definitions of 'large' vary across the region. Tanzania has a cut off of \$500 000 worth of deposits beyond which SACCOS must be licensed and be prudentially compliant. In Mozambique, the criterion is to licence and prudentially control SACCOS once membership exceeds 200 otherwise they are just monitored. The same criterion is assumed in South Africa where 200 members and deposits worth at least \$160 000 warrants SACCOS to be prudentially regulated (Karim et al. 2011).

2.8.4.3 Non prudential regulation

Contrary to modern principles governing financial markets (free market economy), six countries still control MFI lending rates, i.e. South Africa, Namibia, Lesotho, Swaziland, Zimbabwe and Botswana. The controls are meant to curb excessive charging of clients by MFIs though they are unpopular as they curtail competition and innovation. Interest rate controls in Zambia have led to increased loan sizes and tenures as MFIs continue to seek sustainability in the face of limited revenues (Karim et al. 2011). Interest rates are critical in defining the sustainability of MFIs as they represent the ability of MFIs to raise the much needed revenue in covering operational and financial costs. Though Malawi and DRC do not control interest rates for MFIs, they are keen on setting a limit on fees charged by MFIs. However, one way of circumventing such a regulation is to increase lending rates.

With regards to consumer protection, only South Africa has an un-ambiguous policy whereas other countries are still to up their disclosure, transparency, recovery methods and lending practices (Karim et al. 2014). As concerns of clients' over-indebtedness and improving repayment chances, responsible lending is a concern not only for regulators but for the MFIs too. Disclosure is vital in letting clients know the effective rates on their loans and help in stirring up competition amongst MFIs.

Other non-prudential regulation issues in SADC include credit bureaus, limitations on foreign ownership and human resource requirements. These are treated differently by different countries. A summary of these is provided in Figure 2.15. Worth noting is that, both non prudential and prudential regulation keep evolving as new and better thinking gets incorporated to either better MFI performance or protect clients.

Figure 2.15: Non-prudential regulation of MFIs in Southern African Development Community

Best Practice	Angola	Botswana*	DRC	Lesotho	Malawi	Mauritius	Mozambique	Namibia	Seychelles	South Africa	Swaziland	Tanzania	Zambia	Zimbabwe	SADC compliance
No interest rate limits	✓	1/2	✓	✗	✓	✓	✓	✗	✓	✗	✗	✓	✓	✗	◐
Comprehensive consumer protection	✓	✗	✗	✗	✗	✗	✗	1/2	✓	✓	✗	✗	1/2	✗	◑
No restrictive resourcing requirements	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	◑
Availability of a credit bureau (or public credit registry)	1/2	1/2	✗	✗	✗	1/2	✗	✓	✗	✓	1/2	✗	✓	✗	◑
No constraining limitations on ownership	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓	✓	✗	✗	✗	◑

Regulation is present
 Regulation is not present
 1/2 Regulation is partially present (in the case of credit bureaus it indicates only recording of negative information)

* In the case of Botswana, guidelines on the maximum cost of credit rather than regulations on interest rate limits will be issued
 ◐ Full compliance
 ◑ No compliance

Adapted from Karim et al. (2011:21)

Though it is a common guideline to let MFIs provide minimum capital requirements especially when they start collecting deposits, regulation in most SADC countries instruct both deposit taking and credit-only MFIs to adhere to minimum capital requirements. Such minimum capital requirements might be intended to cover losses incurred in lending activities. This has increased costs associated with regulation in SADC. Such costs have a bearing on financial sustainability as a lot of resources have to be parted with before operations commence (Karim et al. 2011). Based on Figure 2.14, SADC countries have to invest in public credit registries (credit bureaus) to enable informed lending by MFIs. This goes a long way in limiting their exposure to bad loans as they would be enabled to screen who to lend to. The realisation is that, only Zambia, South Africa and Namibia are the only countries having credit bureaus. Also, legislation is silent on consumer protection in most SADC countries hence governments have to act on this to protect consumers.

2.9 Chapter summary

This overview covered in this chapter spotted deficiencies in financial development as micro enterprises and the marginalised recorded a suppressed access to financial markets and banking services. Financial sector reforms meant to further financial depth and financial development have in part fomented financial crises, poor growth and financial exclusion. Reforms have not culminated in increased access to credit by the poor and micro enterprises as only the few affluent individuals and large corporate have access to credit. Therefore salient measures of financial development proxied by lofty credit to private sector do not translate into a broad-based access. Re-thinking financial development in a way that allows extensive access (financial inclusion) through microfinance can improve not only depth but growth too. Literature acknowledges that sustainable microfinance can attain both scale and impact, initiate banking sector reforms, and thrive under poor governance as well as assisting financial markets and institutions in developing countries to mature. Taking stock of the status of microfinance in SADC pointed out poor regulatory provisions for microfinance (though initiatives to allow for deposit collection have been instituted in the recent past), financial un-sustainability, meagre outreach as well as financing challenges. Given financing challenges, the manner MFIs ought to be financed in order to spur both financial sustainability and outreach remain unknown – warranting an investigation. The next chapter delves on literature review on MFI financing structure and financial sustainability.

CHAPTER 3

FINANCING AND FINANCIAL SUSTAINABILITY OF MICROFINANCE INSTITUTIONS: A CONCEPTUAL VIEW³²

3.1 Introduction

Widespread failure of MFIs in the SADC³³ prompted recommendations about structuring financial rescue packages for ailing MFIs (Karim et al., 2011). Ironically, these recommendations did not specify the financing structure that would ensure financial sustainability. Providing the right financing option that can proffer financial sustainability (FS)³⁴ given the need to ensure a continued outreach to the poor is unavoidable.

Despite the burgeoning interest in microfinance, research has shied away from addressing the relationship between financing and financial sustainability as few studies have focused on the subject. With the intent of informing the structuring of MFI financing hence ensuring the permanent existence of MFIs, (financial sustainability) hence an effective outreach to the poor, this chapter consolidates theory and empirical evidence on MFI financing and financial sustainability. The understanding is that financing of MFIs continues to evolve with an increased inclination towards commercial financing (Cull et al., 2011; Johnson, 2015). Given the limited information available on the subject, most of which is implied, this chapter fuses the theory and evidence on the relationship between financing and FS. But how is this mission accomplished?

This chapter resorts to the review of literature, allowing for the exploration of the various financing options that MFIs are capable of using, the probable benefits and costs of the same and their implications for financial sustainability. The chapter relies on the few studies that specifically addressed MFI financing and financial sustainability and complement such with implied evidence that helps in part to answer the chapter's concerns. Assuming this methodology, this chapter surveys the relationship between MFI financing and financial

³² A paper based on this chapter titled: Financing and Financial Sustainability of Microfinance Institutions was presented at the 5th CIRIEC International Research Conference on Social Economy in Lisbon, 15-18 July 2015. The paper was published in Issue 2 of 2016 in the Banks and Bank Systems Journal.

³³ A sub-group of 15 Sub Saharan African countries to the south of Africa.

³⁴ FS – “the lender’s capacity to operate for a considerable period of time, measured in decades, independent of subsidy or altruistic support.” Von Pische (1996: 7).

sustainability and draws MFI financing conclusions. The intention is to trigger more scholarly examination as this research area has remained undeveloped.

The chapter proceeds by providing a detailed explanation of financial sustainability in Section 3.2 whilst financing of MFIs and the relationship between MFI financing and financial sustainability are covered in sections 3.3 and 3.4. Section 3.5 wraps up the chapter by providing a summary.

3.2 Financial sustainability

Intensive efforts to fight poverty saw the emergence of microfinance (Kimando et. al., 2012; Brau & Woller, 2004). The provision of financial services to the poor hinges on the assumption that MFIs exist eternally to solve social ills such as poverty, unemployment and low living standards (Iezza & La Cour, 2010; Khawari, 2004; Bogan, 2012). Nyamsogoro, (2010) states that having no MFIs is better than having unsustainable ones. Financial sustainability thus ensures an uninterrupted delivery of financial services (Von Pischke, 1996).

Massive applauding of financial sustainability as additive to efficiency and pronounced outreach (Brau & Woller, 2004) has ignited a financial sustainability drive in microfinance (Hallway et. al., 2011). However, MFIs unlike traditional financial institutions, pursue the double bottom lines, namely the social and the financial obligation (Mersland & Strom, 2010; Kumar, 2012). Financial sustainability is uniquely defined since it is not an end in itself (Rhyne, 1998) but is meant to further the social aspect too. What is financial sustainability then?

Khandker, (1996) notes that financial sustainability defines the ability of an MFI to continue its operations owing to the viability of these operations hence the ability to cover operational, financial and administrative costs. Referring to the Grameen Bank, Khandker notes that the bank attains financial sustainability if the cost per unit lent is matched with the interest charged per unit to clients. Financial sustainability thus can only be attained when interest charged per unit of principal on loans exceeds the associated costs of raising the principal. Mathematically, this can be expressed as follows:

$$r \geq (i + a + p) / (1 - p) \dots \dots \dots \text{Equation 3.1}$$

Where

r — Interest rate charged per unit of principal,

i — Cost of borrowing per unit of principal,

a — The expected cost of administering and supervising a loan per unit of principal

p — The expected default cost per unit of principal

An MFI is viable if revenue exceeds the operational cost per unit of principal lent. Losses occur once lending rates fall below the operational cost in which case MFIs would require subsidies to bail them out (Guntz, 2011). Critical aspects of financial sustainability include disbursement and recovery of loans because loan sizes inform the cost of lending per unit of principal lent. Loan recovery determines the default rate and the cost of default whilst the lending method determines the recovery and administration costs (Khandker, 1996).

Financial sustainability since it is a term that has been widely adopted by different sectors tends to have various meanings. The Association of Local Governments in Australia (LGA) defines financial sustainability as the, “.....ability to manage its finances so it can meet its spending commitments, both now and in the future. It ensures future generations of taxpayers do not face an unmanageable bill for government services provided to the current generation.” (LGA, 2015: 3). Financial sustainability is also, “....maintains or expands services within the organization while developing resilience to occasional economic shocks in the short term” (Sontag-Pedilla et al, 2012). Zviniene and Whitehouse (2010) writing on behalf of the World Bank stress that financial sustainability for all revenue-based programmes is focused on ensuring that all costs are covered and excesses are realised which can push the programme into the future. Is financial sustainability different from profitability then?

Kipsha and Xianzhi (2013) citing CGAP (2004) acknowledge that sustainability is a step towards profitability. However, Rosenburg (2009) equates financial sustainability with profitability. Financial sustainability and profitability are responsive to cost reduction, namely administrative, transaction and operating costs on the back of revenue generation and innovative funding methodologies. Sustainability has three components the first one being operational

sustainability³⁵ - followed by financial sustainability. Profitability is a supreme sustainability measure whereby cost of capital, inflation and all non-cash items on top of operating expenses are paid out of operating revenues only. Surpluses realised by a profitable MFI are used to expand outreach (Rosenburg, 2009; Ayayi & Sene, 2010; Tehulu, 2013).

The financial sustainability movement sparked a debate on mission drift (Roy, 2010; Hermes & Lensick, 2011), brewing a storm popularised as the microfinance schism (Morduch, 2000). Confirmation of the microfinance schism is unconvincing especially the effect of financial sustainability on the depth of outreach (Hermes & Lensick, 2011; Hermes & Lensick, 2007; Amin et al., 2003; Hoque & Chishty, 2011; Quayes, 2012; Paul, 2010). Despite the contentious evidence, financial sustainability has remained a requirement for MFIs given the bad record of donations, grants and subsidies in financing development (Johnson, 2015; Millson, 2013).

Financially sustainable MFIs are on record for capitalising on scales, exercise cost consciousness, promoting innovation, reducing administrative and information asymmetry costs, and lowering adverse selection and moral hazard hence advancing outreach whilst suffering the least amount of losses (Quayes, 2012; Paul, 2010; Hoque & Chishty, 2011). Seeking financial sustainability has led governments to privatise subsidised, inefficient and loss-making credit programmes and parastatals (Robinson, 2001). Likewise, MFIs are moving from donor financing to commercial financing (Forkusam, 2014). Shifting from the ‘old paradigm’ (concessionary funding) to a ‘new paradigm’ (commercial funding) concretise cost-efficiency in microfinance. The old paradigm is pro-social mission whilst the new paradigm backs financial sustainability. Robinson, (2001) claims that the ‘new paradigm’ has created accountability, transparency, efficiency, economic interest rate setting, capital mobilisation and appropriate management remuneration. How is financial sustainability measured though?

3.2.1 Measurement of financial sustainability

The OSS measure for financial sustainability is popular and has been used in innumerable recent studies (Sekabira, 2013; Bogan, 2012; Quayes, 2012; Kipesha & Xianzhi, 2013). OSS measures how adequate MFI revenues are to cover the total costs (operating costs, loan loss provisions and

³⁵ MFI is able to cover operational costs irrespective of the source of cashflows

financial costs) disregarding all grants, subsidies and donations. OSS – as an MIX framework is expressed as follows:

$$OSS = \frac{\text{Total Operating Revenue}}{\text{Financial expenses+operational costs+loss on loan expenses}} \dots\dots\dots \text{Equation 3.2}$$

Where:

OSS < 100% — un-sustainable;

100% < OSS < 110% — operationally sustainable and

OSS > 110% — financially sustainable

Operating revenue includes interest income from both current and past loans, interest from re-structured loans, interest from all investments, fares, service charges as well as penalties from late settlement of loans³⁶. Expenses include financial, operating and loan loss expenses (Cull et al., 2009). Financial un-sustainability means that an MFI cannot meet its operating costs and thus is bound to fail unless it receives financial aid. An OSS in excess of 100% defines an MFI's ability to meet its operating costs. Besides operational costs, an MFI has to meet the financial costs related to financing resources it uses. An OSS of at least 110% defines an MFI's ability to meet both operating and financial costs (Bogan, 2012).

Rosenberg (2009) provides a financial sustainability measure (financial self-sufficiency - FSS) for MFIs that receive donations, grants and subsidies. The FSS measure is expressed as follows:

$$FSS = \frac{\text{Revenue (excluding grants and extra-ordinary items)}}{\text{Total expenses +CFA+ISA+IA}} \dots\dots\dots \text{Equation 3.3}$$

Where:

CFA — Subsidised cost of funds adjustment

ISA — In kind subsidy adjustment

IA — Inflation Adjustment

An FSS measure of at least 100% implies financial sustainability whilst anything below 100% is regarded as un-sustainability. FSS is a subsidy-adjusted measure of financial sustainability popular with NGOs (Manos & Yaron, 2007). Revenues are adjusted to cater for soft loans, in-kind donations and inflation adjustment. The Subsidy Dependence Index (SDI), though touted as the best measure of financial sustainability is least used owing to lack of data to estimate it

³⁶ No subsidies, grants or donations are included in the operating revenue

(Rosenburg, 2009). The SDI measures the margin by which an MFI has to increase its interest rates to cover all costs including adjustments. What then can explain FS?

3.2.2 Factors and trends explaining financial sustainability

It has become apparent that serving the poor can be pursued concurrently with the need to attain financial sustainability. The blended value theory, though unpopular in microfinance states that “...social, financial and environmental are integrated and inseparable, and when intending to create one type of value, other types of value are inescapably produced simultaneously” (Vacklen, 2010: 9). Financial sustainability comes into play to bolster the social mission by adopting a commercial scope in microfinance. Blended value in microfinance has allowed socially and commercially oriented investors - deriving different ‘values’ from microfinance to invest in one MFI. A single MFI thus can accommodate ‘impact-first blended value investors’ and ‘profit-first blended value investors’ though to different degrees.

Mersland and Strom (2012) ask “...are innovations needed to reach out to the poor people and small businesses?” Microfinance, a financial innovation in itself (de Aghion & Morduch, 2005) has ushered in further innovation in the name of sustainable finance. Noting that subsidised microfinance failed (Vacklen, 2010), sustainable finance ascertains perpetual financing of the poor on the basis that “the poor can pay back” and “provision of microfinance can be done in a financially sustainable manner.” Innovation edifies financial sustainability given its viability in serving the poor and female clients, NGO profit orientation, commercialisation and use of technology in cutting costs (Mersland & Strom, 2012; Jaramillo & Weber, 2013). The World Economic Forum, (2012) notes that at no time shall it be possible to declare that financial innovation is complete as long as new opportunities, problems and market imperfections are visible. Financial sustainability presents itself as an innovation meant to ensure self-sufficient MFIs capable of supplying the financial needs of the marginalised.

Sustainable finance has also been aided by the financial infrastructure. Duflos et al., (2013) noted that, financial infrastructure, “...includes accounting and auditing standards, credit reporting systems (credit registries and bureaus), collateral and insolvency regimes, and payment and settlement system.” Financial infrastructure curbs information asymmetry and reduces risk to creditors through clear legal provisions and hence increases the supply of funds to MFIs. The

International Financial Corporation (IFC) (2010) emphasises that standardised accounting and auditing promotes financial performance based lending and lowers loaning costs. As MFIs adopt these standards, they attract “funding beyond donors and government subsidies” (Asian Development Bank, 2000). Regulation and supervision have allowed MFIs to collect deposits too as ‘market based microfinance’ came to the fore, allowing for the integration of MFIs into the mainstream financial sector. Financial sustainability is thus based on cost cutting technology, novel business models and credit scoring, restrained adverse selection and moral hazard, ensuring further injection of commercial capital and expansion of operations (IFC, 2010).

3.3 Financing of microfinance

Kapper (2007) estimates that 80% of the world’s population is financially excluded thus the demand for microfinance is high. Paul (2010) writes, “Demand for microfinance currently outstrips supply by \$300 billion and in order to reach those without access, MFIs need to expand.” Capital constraints and high operating costs in developing countries limit access to financial services by the poor (Kumar, 2012). The aggregate portfolio for MFIs across the world approximates \$15 billion whilst the anticipated growth rate ranges between 15 and 30% per year, translating into \$2.5 - \$5 billion additional capital required annually. Conversely, donors are able to inject nearly \$400 million annually, falling short of the sector’s need. Donations are used for microfinance developmental issues especially information dissemination, capacitation of MFI associations and regulatory support (CGAP, 2004). Adequately financing MFIs becomes critical if the needs of the poor are to be fully addressed. A high prevalence of financial exclusion is caused by the lack of strong financial intermediation backed by sound financing (Kapper, 2007). The financing options assumed by MFIs in part determine the financial services that they can provide and at what cost.

Hoque and Chishty (2011) noted the marked transition³⁷ of NGOs and non-bank MFIs into regulated microfinance banks as the search for adequate financing sources. de Sousa-Shields and Frankiewicz (2004) wrote that “the microfinance sector in most countries has proven its commercial viability and that MFIs can serve the market profitably when applying best practise asset management.” Given that MFIs are being weaned by donors and governments, new

³⁷Commercialization

innovative financing methods are being instituted (Hoque & Chishty, 2011). The authors write that, "...commercialisation is the only way to attract money needed to expand the outreach and to liberate the system from dependency on foundations and other charitable donors." However, the debate on the proper financing of microfinance that ensures extended outreach and the long-standing of MFIs remains open.

3.3.1 Financing sources/ instruments

The financing structure of MFIs mimics that of commercial banks (Karim et al., 2011). Profit-motivated MFIs employ debt, equity and savings whilst grants, subsidies and donations are used by NGOs. Debt is mainly supplied by private investors (non-commercial), commercial banks and multilateral organisations. Equity is owned by national and international non profit institutions and development banks. Estimating how microfinance is financed throughout the world, CGAP (2004) attributed 25-35% of MFIs to deposit/savings financing. A further 35-40% are debt financed with 30-40% being equity financed. Hermes and Lensink (2011) emphasise that commercialisation of microfinance, competition, technology, financial liberalisation and regulation explain the change in the financing structure of MFIs.

MFIs can obtain grants from governments and foreign donors in the form of low interest loans as well as microcredit loan initiatives (Buss, 1999). Humanitarian donors bankroll MFIs though on a revolving fund basis (Kapper, 2007). Corporate social responsibility activities give to NGOs which in turn finance MFIs or can operate an entity that carries out the lending business. Governments can issue concensionary loans to MFIs and may own debt and equity or provide grants to MFIs. MFIs with pro-government development goals, especially poverty reduction obtain the funding. Alternatively, governments may fund their own MFIs. Governments of developed countries invest in microfinance through MIVs. MIVs provide capital to MFIs by investing in microfinance on a commercial basis (Isern & Porteous, 2005). They act as conduits of both public and private capital meant for microfinance programmes. Popular MIV investors include public funds such as international finance institutions (IFIs), institutional investors (pension funds) as well as foundations focused on social values, NGOs and philanthropic individuals. Prominent IFIs include the IFC; the European Bank for Reconstruction and

Development (EBRD), Kreditaustalt fur Weideranfban (KfW) and the USAID (Kapper, 2007; Isern & Porteous, 2005). These sources formulate cheap financing for MFIs.

Other commercial funding sources include commercial banks. Banks regard MFIs as their clients thus they provide an abundance of loans to MFIs. Indirectly, commercial banks may assume an investor's role by holding equity in an MFI. Reacting to competition and the need to increase revenues, commercial banks are down sizing – extending their business operations by outsourcing retail of microfinance products and services through established MFIs (Isern & Porteous, 2005). Other MFIs have turned public to raise capital. Compartamos³⁸ went public in 2007 whilst SKS Microfinance managed to raise \$358 million after going public (Hoque & Chisty, 2011). This has marked a transition in the thinking behind funding of microfinance as it has become acceptable that MFIs can source financing in competitive markets just like any other corporate. MFIs can also attract deposits and use such deposits to fund outreach only upon meeting regulatory requirements. Deposits are considered stable and can fund MFIs over a long period of time thus MFIs can attain solid growth (Kapper, 2007). However, the use of deposits is subject to the regulations prevailing in the host country.

Rhyne, (1998) reiterates that, the 'sustainability camp'³⁹ view private sector financing as the future of microfinance though the 'poverty camp' value donor financing (Brau & Woller, 2004). The poverty camp believe that donations are poor-oriented and fear that, profit orientated MFIs initiate mission drift as they steer clear of the high administrative costs associated with small loans destined for the poor. The sustainability camp posit that donations threaten outreach in the future as there is no assurance of continued capital injection by donors (Ayayi & Sene, 2010). Furthermore, governments and donors have failed to fund microfinance on a mega-scale hence the un-accomplished goal of fully serving the poor. Since the private sector has unlimited resources, it can ascertain un-interrupted and indefinite financing of the poor. The idea of commercialisation has seen deposit attraction plus debt usage ballooning evidencing the evolution of MFI financing (de Sousa-Shields & Frankiewicz 2004).

³⁸ A Mexican MFI

³⁹ Institutionalists or the 'New paradigm'

3.3.2 Microfinance financing theories

3.3.2.1 Life cycle theory

Fehr and Hishigsuren (2006) posit that the capital structure of MFIs changes with the LCT phases of an MFI. The conditions set by capital providers do not allow MFIs to have much choice, thus certain MFI growth phases are reminiscent of a certain financing structure. The related cost of capital may limit MFIs' funding choices. Hoque and Chishty (2011) concur by writing that the LCT explains the financing of MFIs as they evolve into financially sustainable institutions. Though Hoque and Chishty (2011) identified three MFI growth stages⁴⁰ the notable phases as outlined by Kapper (2007) are the start-up, expansion, consolidation and the integration stage.

In the start-up phase, MFIs are financed through donations and concessionary funds as financing is risky for private investors. Since donors want to control the lending, having equity in the MFI would allow them to achieve that. Setting up systems and the blunt business models constrain profitability. NGOs are most successful in this phase because of the subsidies and grants that they receive. The expansion phase emphasises the extension of operations once operational challenges in the prior phase have been solved. A good business model expand MFI operations and outreach. The expansion stage introduces equity to NGOs and public investors to attain MFI operational stability. IFIs provide seed capital. IFIs' capital comes in between donor funds and commercial funding. However, subsidies are still available for MFIs, namely soft loans and grants (Brau & Woller, 2004).

The consolidation stage commercialises the operations of an MFI. MFIs invest in acquiring sustainability by formalising operations through observing regulation that allows for the attraction of deposits. Deposits expand loaning but at a low cost. The consolidation phase has an introduction of commercial debt in the funding structure. The stability attained allows funds to be acquired from banks (domestic). Foreign funds are used as guarantees for debt acquired by MFIs in the local market. More private capital can now be sourced. However, only large MFIs can afford such funding because they are of low risk and thus can attract private investors who are keen on returns. Domestic debt is now the prime source of financing as foreign debt has

⁴⁰ Formative, maturity and commercial stages

connotations of exchange rate risk and capital flow regulations making it costly. Commercial banks involved in microfinance do not go through this transition process though NGOs are most likely to proceed in this way (Kapper, 2007).

In the integration phase, MFIs enter the mainstream financial sector by turning into microfinance banks. Subsidies and grants are no longer part of the financing structure of MFIs and most MFIs are financially sustainable and profitable. The integration stage is synonymous with high outreach. However, there is a belief that as MFIs acquire financial sustainability they may neglect the core poor (Morduch & Haley 2002; Morduch 2000). Pro-sustainability advocates such as Rhyne (1998) posit that as the MFI develops, so do its clients; thus at the integration stage, the loans granted to clients will not be small anymore. Effectively, there will not be any mission drift with regards to the size of the loans. Notable, however, is that more clients get served by sustainable MFIs.

Despite the popularity of the LCT, evidence of it remains scant as little work has been done on it. In an effort to answer the question: Do MFIs develop towards financial sustainability, Bogan (2012) used cross-sectional data on the top 300 MFIs. The results did not support the LCT but underscored the importance of capital in determining financial sustainability. This is because capital constraints and costs limit the expansion of microfinance. de Sousa-Shields and Frankiewicz (2004) note that the shift to private capital has already begun and some MFIs are being established on full private capital financing. The authors emphasised that, the ability of an MFI to survive any stage of the LCT is a function of the ability to attract the ideal financing resources.

However, Fehr and Hishigsuren (2006) notes that whilst market-oriented financing for MFIs is noticeable, there is still evidence of non-commercial financing that opposes the LCT evolution style. Financing programmes linking MFIs with investors and commercial banks through credit enhancement lowers financing costs for MFIs as they turn into commercially viable entities, thus challenging the LCT.

3.3.2.1.1 Strength and weaknesses of the life cycle theory

Scanty work has been done in checking the sufficiency of the LCT in explaining either the MFI financing strategies or MFI development towards financial sustainability. Worth noting is that,

the change process for the microfinance sector has begun with a defined movement from mission-driven institutions to an era defined by the ‘needs and interest’ of private capital (pro financial sustainability). This transformation is hailed by de-Soussa Shields et al. (2004) as being additive to outreach to the poor through ‘transformed’, lasting and efficient institutions. de-Soussa Shields et al. also note that, the changeover to private capital is in motion as some MFIs are now being established with full private financing. However, the transition is reportedly more irregular, sluggish and complicated than suggested by the LCT. This is explained by insufficient and ‘restricted’ access to private capital by MFIs. The transformation proposed by the LCT requires expertise and experienced management which remain scarce especially for an industry marred by poor business models. Though deficient, exploiting the finest knowledge, establishing a better regulatory and monitoring framework as well as adhering to sectoral associations can advance the evolution and development of microfinance (de-Soussa Shield et al. 2004).

For long, microfinance has been largely inclined towards the social mission, thereby abusing the lax performance requirements of non-commercial financing. This background affects the ability of MFIs to attract commercial financing. The social mission has for long eroded professionalism and the adoption of appropriate business principles, thereby limiting the turn to private capital as managers are only trained to manage donations as well as the interests of donors. Despite these weaknesses, the LCT remains suitable for defining an MFI development framework necessary for understanding the divergence from the real business environment. With regards to the financing transition, the LCT does not detail the unique intricate features that allow for such a process to ensue. This makes the transition process a firm-specific issue that cannot be generalised.

Contrary to the LCT, non-commercial financing is used by MFIs across all the life cycle stages not only the start-up phase (de-Aghion & Morduch 2005). Non-commercial financing is deployed in both institutional and product development by mature MFIs, thereby discrediting the LCT. Effectively, non-commercial financing is devoted to MFIs that should be using private or commercial financing. This has established the culture of a non-profit business model for most MFIs, thereby opposing the progress towards financial sustainability. As synonymous with development in other sectors, microfinance has not experienced mergers and acquisition reminiscent of a developing industry. Whilst microfinance infancy can explain the lack of

market-wide developments, other hurdles for the rationalisation process include the social-mission based business model.

The ability of MFIs to attract commercial capital is also a function of whether investors possess knowledge about the lucrativeness of investment in microfinance. Tapping microfinance opportunities and managing the key constraints for microfinance may increase access to private financing, especially for local investors. However, it is worth acknowledging the role played by non-commercial financing in the growth and commercialisation of MFIs. MFIs have traditionally leveraged non-commercial financing as they access commercial financing. A new trend whereby non-commercial financing is allocated to mature MFIs (instead of small and risky institutions) has also discredited the LCT. Attention is drawn to cases of publicly-controlled international funds such as Inter-America Development Bank's Multilateral Investment Fund and EBRD financing, which is 88% concentrated in regulated MFIs (these can attract commercial financing namely debt and equity).

Whilst the LCT is precise about the developmental features of MFIs at various stages with regard to both financing and level of financial sustainability, it is silent on the speed at which a sector evolves and the timing thereof. Telecommunications and the steel industry have gone through the LCT at least three times in the past 30 and 50 years, respectively. As industries undergo multiple life cycles, the LCT is silent on the age with regard to years but adheres mostly to observable characteristics. Moreover, the LCT fails to forecast the source of changes observable in MFIs. However, the financing needs indicated by the LCT at each stage formulate a framework against which an educated comparison can be made with typical business.

3.3.2.2 The profit incentive theory

The profit incentive theory (PIT) is based on the idea that the use of commercial funding sources at any stage of MFI evolution enables MFIs to meet the 'microfinance promise'⁴¹ (Bogan 2012). The use of commercial funding raises cost consciousness, efficiency and outreach. In concurrence with the institutionalist paradigm, the PIT maintains that donor funding is limited in amount, thus cannot fund microfinance on a mega scale given the increasing demand for microfinance.

⁴¹ See Murdoch 1999

The theory maintains that MFIs pursuing profits strive to maximise revenue whilst minimising operational costs to cover expenses and build surpluses. MFIs funded by grants and subsidies do not respond to profit maximisation and cost minimisation pressures and thus opt for outreach depth over efficiency by serving the poorest and rural clients who have extra lending costs (Bogan 2012; de Aghion & Morduch 2005).

Evidence on the PIT as furnished by Bogan (2012) shows the increasing international and internal pressure on MFIs to shed subsidies and grant financing. Institutions such as ACCION International have made frantic efforts to link MFIs with equity financiers, debt financing as well as other commercial funding sources. This has provided an avenue for MFIs to seek independence from grants and subsidies. But how effective is this theory in explaining the financing of MFIs?

3.3.2.2.1 Strength and weaknesses of the profit incentive theory

The PIT maintains that subsidies lower MFI efficiency, yet evidence points to a complex relationship between subsidies and efficiency. Evidence shows that subsidies have a positive effect on financial sustainability subject to a threshold limit (de-Aghion & Morduch, 2005). The PIT therefore fails to account for this notched effect of subsidies on financial sustainability. However, it remains a fact that excess subsidies kindle moral hazard and suppress the operational efficiency of MFIs. Moreover, where strict performance targets and oversight for managers are in place, subsidies may not have a negative effect on financial sustainability. Recent calls by donors to push MFIs to observe financial performance are a move towards improving the efficacy of subsidies (Johnson, 2015). In the same vein, Klapper (2007) noted that usage of debt financing by MFIs is mostly secured against subsidies. The implication is that, subsidies actually support the transition to commercial capital hence debunking the PIT. It is also worth noting that some subsidy-financed MFIs are financially sustainable pointing to the importance of apt control mechanisms in the management of MFIs and not the form of funding in determining financial sustainability.

Devinck (2013), acknowledging a study by Hudon (2011), states that evidence on the relationship between subsidies and financial sustainability might be affected by the way in which subsidies are estimated. Hudon's study related to donated equity and not operational

subsidisation. Devinck (2014) maintains that it is subsidies meant to cover operational expenses that counter MFI efficiency. Such evidence paints a gloomy picture regarding the role of subsidies in financial sustainability.

One of the arguments against subsidies is based on the notion that subsidies limit the ability of MFIs to access commercial financial markets. However, this argument is weakened by the fact that commercial orientation is independent of the type of financing used by an MFI. Rather, it is the perceived riskiness of an MFI that defines the commercial financing sources that it can use (Devinck 2013). All the same, recent evidence has shown that subsidies are being used to finance efficient and innovative MFIs (de-Aghion & Morduch 2005). These are provided under the ‘smart subsidies’ tag and are meant to develop new products and subsidise lending to the poor. This evidence thus refutes the propositions of the PIT.

Aggressive lending pursued under commercial financing termed ‘perverse’ lending by Rishad (2012), has seen exponential growth of loan portfolios against poor borrower and fundamental analysis of the market. This has affected both banks and MFIs, especially in the recent financial crisis. However, it is worth noting that commercial oriented MFIs have managed to meet the microfinance promise through super efficiency and enlarged outreach. The conclusion is that non-profit motivated MFIs have limited financing resources and thus cannot engage high-risk clients using donors’ funds. This limits their ability to earn interest income, as is the case with commercial funding.

Considering the microfinance promise that pledges to serve the poor whilst maintaining financial viability, pursuing total private financing of MFIs would portray MFIs as serving specific groupings thereby allowing MFIs to accrue adequate proceeds thereby, failing to serve the core-poor. Thus the inflated impact of commercialised microfinance is basically the breadth and not the depth of outreach.

3.3.3 Other financing determinants

Amongst other key determinants of the financing structure of MFIs as noted by Fehr and Hishigsuren (2006) are the regulatory provisions. They write that “...national and regional variations in financing patterns are subject to regulation...” Regulated MFIs are normally

allowed to attract deposits, thus are set to benefit from low cost savings (Fehr & Hishigsuren 2006). Thus, countries whose regulation outlaws deposit collection tend to consider more debt and equity financing compared to countries that allow attraction of savings. The incredible trend of surging deposits in Africa is attributable to several African countries passing laws that decriminalise deposit collection (Lafourcade et al. 2006).

Whilst deposits can be a source of cheap financing, regulation and supervision present a cost to MFIs (Cull et al. 2011). Cull et al. (2011) found that regulation negatively affected outreach, the same as female borrowers. Regulation thus poses additional cost to MFIs that may force them to cut back on smaller loans meant for the poor and female clients and issue more larger loans.

Microfinance funding trends are also subject to localised characteristics that have a bearing on the development of institutions (Bogan 2012). These characteristics include historical legacies of both saving and lending as well as legal provisions defining the operations and the raising of capital. This explains why Latin America has many regulated MFIs compared to the Middle East, North Africa, Eastern Europe and Central Asia. Moreover, various microfinance charters mean different players with different missions, hence the difference in funding and funding patterns and transitions.

3.4 Relationship between financing and financial sustainability

Studies specifically addressing MFI financing and financial sustainability remain few; hence, some evidence presented below is implied in studies covering the implications and determinants of financial sustainability or the relationship between financial sustainability and outreach. Of note is that evidence is contentious as results from different studies give conflicting results. This validates claims by Cull et al. (2009) that microfinance trade-offs vary with regions; hence, evidence has to be evaluated noting regional characteristics. However, a generalised perspective is assumed in this chapter.

3.4.1 Subsidies and financial sustainability

On the role of donations, Abdelkarim, (2002) writes that it has dawned on most NGOs that donations allocated to them fall short of the expansion needs of microfinance. Louis and Bart, (2013) concur by stating that, “shunning external funding and focusing on generating sufficient

income from their operations MFIs enjoy efficiency and can survive into the future.” Amin et al. (2003) reflect on the same by writing that, subsidies have a “baffling record of political manipulation” and diversion from poor clients. Murdoch, (1999) also affirms that “If donors tire of funding the bill for microfinance, achieving financial sustainability and increasing returns to equity is the only game to play.” His assertion is based on donors’ budgets being limited thus restricting both financial sustainability and outreach prospects.

Though FS negates the usage of donations in financing microfinance (Rhyne 1998; Sekabira 2013), donations are on record for supporting new microfinance programmes – giving them ‘breathing space’ as they upgrade systems and human resources needs. This amplifies financial sustainability in the long run. Given limited financing sources in the initial stages, donations remain a dependable financing source for MFIs in their quest for financial sustainability (Hudon & Traca 2011). Aveh et al. (2013) note that the SDI is still high, though the trend is gradually going down. The implication is that, most MFIs still need subsidies. Kinde (2012) found that donations amplified financial sustainability up to a certain level and that beyond that level, donations started to undo financial sustainability. The findings are in line with those of Hudon and Traca (2011) who write that there is a positive relationship between subsidy intensity and financial sustainability with a threshold limit on the subsidy. Effectively, subsidies do not have a negative effect on FS as long as they are within limits, in other word ‘smart subsidies.’ What are smart subsidies? and how can they support financial sustainability then?

de Aghion and Morduch (2005: 5) define smart subsidies as “...carefully designed interventions that seek to minimise distortions, mistargeting, and inefficiencies while maximising social benefits.” Brau and Woller (2004) established that subsidies were efficient if used to finance innovation and establishment costs for MFIs. Once operations are viable, donations are removed from the financing structure of MFIs. This explains the trend by donor organisations and governments to embrace sustainability-based reporting by NGOs (Rosenburg 2009). Morduch (2005) notes that smart subsidies can open new MFI financing, expand outreach and reach the poor better, though it is un-deniable that poor structuring and improper targeting propagate distortions and fosters dependency, limiting financial sustainability and outreach. Morduch extended his writings stressing that, transparency of subsidies has to be instituted same as setting rules and timeframes for withdrawal of subsidies.

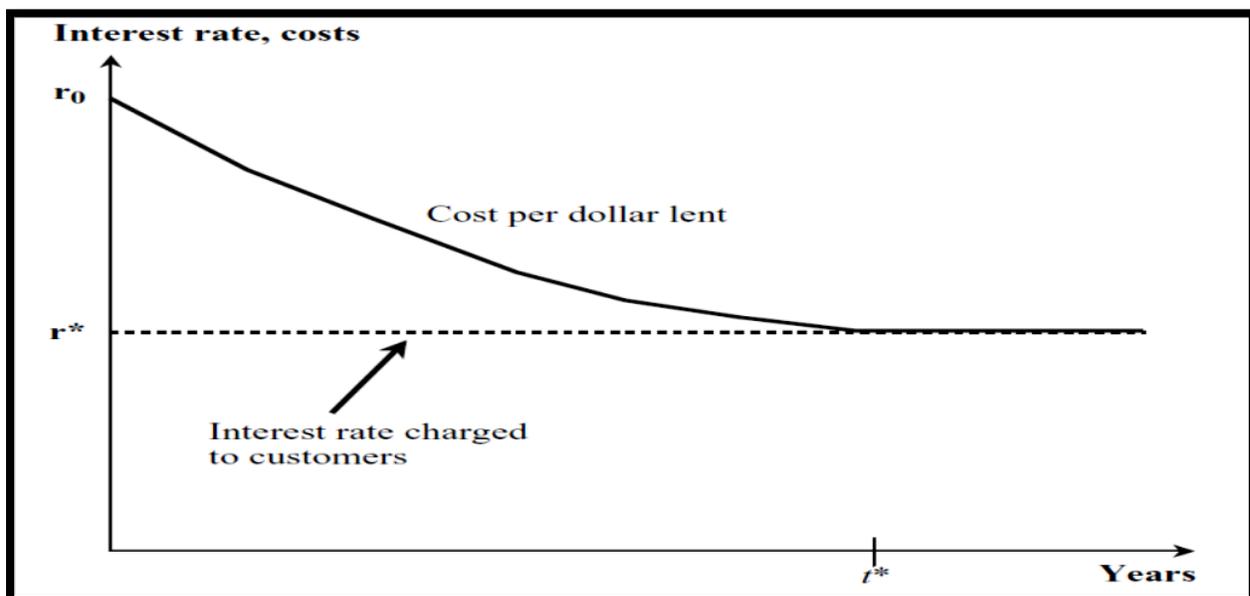
de Aghion and Morduch (2005) identified three ways of making subsidies smart namely subsidise the program not the customer, strategic short term subsidisation of very-poor clients and strategic subsidisation over long periods. These are presented below.

3.4.1.1 Program based subsidies not client-based subsidies

MFIs charge interest rates that cover all their costs and provide for a profit margin. This accounts for the usurious interest rates that MFIs might have to charge clients if they are to be sustainable. By subsidising the programme, MFIs can charge clients market interest rates (these are lower than rates that can make an MFI sustainable) and a subsidy would cover the shortfall. Effectively, lower interest rates are charged to clients whilst the shortfall required to make the institution sustainable is subsidised as the MFI grows its scales to levels that enable it to be sustainable at market interest charges (Morduch, 2005).

Subsidising the programme and not the client includes supporting start-up programmes. If operational costs are high in the early days with the average costs going down over time as scales improve, subsidies can be used only during the initial stages of the MFI and are stopped when the programme can be kept afloat, in other words average costs can now be covered by interest charged to clients (see Figure 3.1).

Figure 3.1: Subsidies that mitigate distortions



Adopted from de Aghion and Morduch (2005)

Since evidence suggests that donors find it difficult to withdraw donations, de Aghion and Morduch, (2005) recommend that MFIs attain efficiency at given timeframes in preparation for withdrawal of subsidies. Strict performance measures thus have to be adhered to. Donors might also consider funding research and innovation that can be used by MFIs in capacitating their operations rather than directing subsidies to the MFIs.

3.4.1.2 Strategic short-term subsidisation of very poor clients

Very poor clients lacking business acumen are trained so that they are able to utilise funds borrowed from MFIs in a business sense – making lending to the poor sustainable. Such clients may access loans below the market rate for a specified period to allow them to put together their businesses. The Income Generation for Vulnerable Group Development done by BRAC in Bangladesh falls in this category. The structuring of the programme includes food subsidies stretching for 18 months and 6 months of training meant to move the poor out of poverty extremes. After saving for the entire training period – building a capital base, trainees enter the main BRAC programmes on a par with other existing customers; in other words they borrow at the market rate. Subsidies thus are meant for vulnerable clients; hence, an MFI can receive subsidies for as long as it capacitates the core poor. Once the clients are self-sufficient, subsidies are stopped. Subsidies are thus used to fund initiation of a relationship that ends up being sustainable (Morduch, 2005).

3.4.1.3 Strategic subsidisation over the long-term

Small loans, though meant for the poor, are costly to MFIs in terms of servicing and administration compared to bigger loans. Thus, MFIs are forced to increase lending rates on small loans, thereby causing mission drift. Smart subsidies are then used to cover the extra cost that MFIs incur in giving out small loans. Such subsidies would stop once clients graduate to big loans whose related cost is lower than that for small loans. Thus, all clients, whether their loan is small or big, are charged the same rate though in the background, subsidies make up for the extra cost of small loans.

Morduch (2005) adds that smart subsidies can be used to ‘crowd in’ other commercial financing options. Securitisation involving SHARE Microfin Ltd and ICICI Bank in India was able to go

through after an 8% first-loss guarantee was provided by the Grameen Foundation as a subsidy. The subsidy thus ‘crowded in’ new financing worth \$4.3 million. Such guarantees whereby donors signal their confidence in an MFI’s efficiency and prospects are essential. Other sources of financing are then enticed to inject their money into microfinance. However, are donors equipped to know the extent of smart subsidies required by MFIs?

In relation to smart subsidies, Morduch (2005: 16) notes that, “...at present there is almost no careful evaluation and it is time to shift the balance.” Thus wherever subsidies are used, there must be a standard way of “demonstrating social impacts, and those impacts should be measured using rigorous statistical analyses, with solid control and treatment groups and attention to measuring causal relationships” (Morduch 2005:16). CGAP (2005) recommends that donors must review an MFI’s pledge to attain operational efficiency and financial sustainability within the shortest time possible. Performance indicators such as operational efficiency, interest rate and fees policy as well as reporting standards must be used to gauge management’s prowess.

3.4.2 Debt versus financial sustainability

The agency theory aligns with the view that the use of debt in limiting agency costs and spurring profitability (Kumar 2012). Coleman (2007) confirms the agency theory, noting that highly leveraged MFIs are able to address risk, reduce moral hazard and adverse selection, and reach out to more clients. The threat of liquidation and loss of personal benefits compels managers to improve efficiency for which debt financing is used. Hoque and Chishty, (2011) studied how commercialisation of MFIs affected MFI financing structure, financial sustainability and mission drift. Panel methods adjusted for random and fixed effects revealed that debt usage reduced outreach depth though it upheld financial sustainability. Abor, (2005) confirmed the same results noting that highly leveraged MFIs achieved efficiency and enjoyed economies of scale. Constraining administration costs associated with small loans as MFIs pursue financial sustainability usually leads to mission drift under debt financing (Brau & Woller, 2004).

In the contrary, Sekabira (2013) and Tehulu (2013) note the limitation that debt places on financial sustainability, given the availability of cheap equity in Uganda and East Africa, respectively. Tehulu (2013) acknowledges portfolio at risk (PAR), management inefficiency, loan size and intensity as key determinants of financial sustainability. Kinde (2012) focused on

financial sustainability of Ethiopian MFIs and found that capital structure had an insignificant effect on financial sustainability. Debt had an insignificant negative impact on financial sustainability mainly because of the cost associated with debt financing. This is supported by Kiiru (2008) who noted a significant negative association between debt and financial sustainability in Kenya. Can financial sustainability, however, explain the level of debt assumed by MFIs?

Kumar (2012) identified reverse causality flowing from financial sustainability to MFI debt levels. The *efficiency-risk hypothesis* explains high leverage in the financing structure of MFIs. Efficient⁴² MFIs employ high debt ratios compared to other MFIs because high efficiency cuts the anticipated costs of financial distress and bankruptcy. High profit efficiency substitutes to some extent for equity capital by protecting the firm from future crises. Conversely, the *franchise-value hypothesis* can explain low debt levels if highly efficient MFIs want to lock-in profits, hence reduce liquidation chances (Margaritis & Psillak 2009). Faulkender and Peterson (2004) demonstrated that MFIs had different leverage ratios owing to whether they have access to public bond markets or not. The realisation is that MFIs that raised debt from public markets had 35% more debt.

Though debt raises cost-efficiency for MFIs, care must be taken not to over-use it as it invites high service fees, which in turn spark bankruptcy and nullify financial sustainability efforts (Kiiru 2008). MIX (2013) notes the low uptake of debt by MFIs across the world. Kiiru (2008) also notes the decreasing role of debt in MFI financing in Kenya as it impairs profitability. The understanding is that MFIs tie themselves to debt for as long as they are not able to collect deposits. It is however, vital to note that for new MFIs, debt is less costly compared to deposits. All the same, deposits cannot fully service loan demand; hence, debt covers the shortfall especially for MFIs that opt to remain non-deposit taking (de Sousa Shields & Frankiewicz 2004). The authors note that most debt capital is denominated in hard currency (Euro or USD) which translates into currency risk given the turbulence in the foreign exchange market that MFIs are not prepared to tackle; this might further impede efforts towards financial sustainability (CGAP, 2004: 6). The authors note that

⁴² Efficiency in this context tallies with FS

as MFIs take on more sophisticated debt instruments, increasingly sophisticated and informed treasury financing skills are required to determine the cost and liquidity advantages of different tenors and types of debt, including savings. Efficient liability management and planning is key, as growing institutions need to ensure sufficient liquidity while maintaining a minimum of non-performing assets. Striking this balance demands strong liability information and analytical tools.

3.4.3 Deposits and financial sustainability

Deposits⁴³ have become a key MFI financing option world-wide except in the Middle East and North America (MENA) region (MIX 2013), with special mention of Africa where deposits surpass the volume of loans (Lafourcade et al. 2006). Kinde (2012) indicates that it is through savings that MFIs can expand loan portfolios, improve on sustainability, reduce loaning rates and move towards satisfying demand. Though Tehulu (2013) finds an insignificant influence of deposits on financial sustainability in East Africa, Khandker (1996) perceives that savings mobilisation indicates an MFI's ability to self-finance hence attain independence and permanency (Khawari 2004). Iezza and La Cour (2010) and Kiiru (2008) note that deposit attraction makes a marked contribution to financial sustainability; hence, it has become the preferred MFI financing option. Deposits are attracted at a low cost and are used to make loans allowing MFIs to enjoy significant profit margins from the interest rate differential. This lessens pricey borrowing for on-lending by MFIs (Kiiru 2008; de Sousa Shields & Frankiewicz 2004).

However, Cull et al. (2008) note that many countries outlaw deposit collection unless where regulatory requirements are observed. Being regulated poses a cost to MFIs, especially in upgrading of information systems, aligning with capital requirements and hiring experts (CGAP 2005; Tehulu 2013; Cull et al. 2009). De Soussa and Frankiewicz (2004:38) figured out that,

many MFIs are basically credit management companies with both human and physical resource assets tied closely to credit management and growth. Changing focus from credit to savings has proven challenging and, in many cases, collecting significant deposits has taken longer than many MFIs would have thought necessary.

⁴³ Deposits referred to are not 'forced savings' are mostly not used to finance loans but are conventional deposits that are attracted by way of observing licensing requirements first.

Licensing costs thus may push MFIs to grant bigger loans and limit loans to female borrowers (mission drift) (Cull et al. 2008). Evidence from Cull et al. (2009) shows that microfinance-aligned commercial banks issue loans that are nearly four times as large as those issued by NGOs, substantiating mission drift. Essentially, deposits spur financial sustainability but MFIs must be equipped to deal with licensing costs which might curtail outreach depth.

3.4.4 Equity and financial sustainability

Sekabira (2013) in writing on capital structure and its role on the performance of microfinance in Uganda recommends the increased use of equity and discourages the dependence on grants and subsidies. Evidence as early as 1999 by Conning reveals that sustainable MFIs that are capable of serving the poor ought to be largely equity financed. Low costs associated with equity, given that dividend payment is not an obligation (Tehulu 2013) boost financial sustainability. Further evidence by Hartaska and Nadolnyak (2007) approves equity in stimulating financial sustainability. However, equity remains a rare and scarce resource in microfinance as put forward by MIX (2012) thereby requiring supplements of other funding option to meet demand.

Conversely, Kumar (2012) suggests that financial sustainability can cause the level of equity assumed by MFIs. The *franchise-value hypothesis* states that MFIs that achieve financial sustainability normally have high equity levels to guard against the loss of economic rents or value of the franchise from probable liquidation. If economic rents are expected to increase and financial sustainability is expected to continue in perpetuity, shareholders are incentivised to hold more equity, hence enjoy ultimate control of the rents. Empirical evidence shows that banks hold on to additional equity to protect the value of their franchises (Berger & di Patti, 2006). Further evidence also supports the notion that firms tend to be equity financed when such firms have inimitable products with the potential of creating market power rents (Titman & Wessels, 1988). In contrast, the *efficiency-risk hypothesis* explain low equity levels in an MFI. If the chances of liquidation are low, MFIs are usually enticed to employ more debt, thus cutting back on equity levels. While there are MFIs that were listed successfully on stock exchanges and raised enormous amounts of equity in Latin America (Cull et al. 2009), it remains a dream for most regions in the world to achieve the same development.

3.5 Generalised comment

The manner in which MFIs are financed varies across regions, as shown in Figure 2.13. According to Figure 2.13 African MFIs are mainly financed through deposits whilst MENA MFIs make use of equity. South Asian MFIs heavily depend on debt financing. The gist of the matter is that the trade-off between MFI financing options and financial sustainability would naturally vary according to the region being considered. Variation in the effect of each financing option on financial sustainability is dependent on the study setup, in other words the sample, the area considered, the period and the level of financial development. This explains why Cull et al. (2009:19) note that, “the exact nature of trade-offs in microfinance differ across regions, but meaningful trade-offs need to be recognized and weighed everywhere.” Localised trends thus are instrumental in defining the nexus between financing and financial sustainability as they vary across regions.

3.6 Chapter summary

This chapter sought to label the relationship between MFI financing and financial sustainability. Of note is that financing options for MFIs vary across regions. This can be explained by varying degrees of financial development and policies that govern the functioning of financial markets. Though subsidies are condemned for spurring distortions and inefficiency and for harbouring a dependency syndrome, subsidies are additive to financial sustainability, though with a threshold limit. Smart subsidies are preferred to ensure that maximum social impact is attained without prejudicing financial sustainability in the long run. Common ways of making subsidies smart include subsidising the programme not the client, strategic short-term subsidisation of very poor clients, strategic subsidisation in the long-term as well as crowding-in other commercial financing options. However, effort has to be channelled towards proper measurement of efficiency and impact under subsidy financing for timely withdrawal of subsidies once operations attain financial sustainability.

The agency theory notes the role of debt in promoting financial sustainability since it effects cost-efficiency. The pressure to attain enough revenue to service debt, cover operational costs and make profits propel MFIs towards financial sustainability. However, checks and balances have to be put in place to avoid excessive use of debt as it may trigger bankruptcy and spark

mission drift as cutting administrative costs on small loans to maintain financial sustainability becomes unavoidable. Whilst savings are a stabiliser and endorse financial sustainability since they come at low cost, regulatory costs might oppose financial sustainability in the short run. Becoming licensed to attract savings requires the hiring of experts, conforming to set capital requirements and the upgrading of systems. This might curtail financial sustainability in the short run if MFIs are not prepared to meet such costs and hence trigger mission drift as MFIs resort to bigger loans whose associated administration fees are low. Thus the reduction of regulatory costs makes the attraction of deposits cheaper for MFIs. Equity, though, cheap remains a scarce resource in microfinance as few MFIs are listed on stock exchanges. All the same, equity is compatible with financial sustainability and feeds into a significant outreach depth. The next chapter investigates the essence of the life cycle theory in explaining financial sustainability. The gist of the matter is to draw financing lessons if any which can be replicated in pursuit of financial sustainability. Also, observing how MFIs develop given the theoretical life cycle theory propositions is important in appreciating the practicality of the life cycle theory, hence allow for practical and informed decisions regarding financial sustainability to be made.

CHAPTER 4

LIFE CYCLE THEORY AND FINANCIAL SUSTAINABILITY OF SELECTED SOUTHERN AFRICA DEVELOPMENT COMMUNITY MICROFINANCE INSTITUTIONS⁴⁴

4.1 Introduction

The financial sustainability of MFIs continues to be in the limelight of research owing to its importance in ensuring the longevity of MFIs – transforming into a consistent fight against poverty (Quayes 2012; Sekabira 2013; Kipasha & Xianzhi 2013). Theory has shown that MFIs' life cycle stages can explain the financial sustainability of MFIs (Fehr & Hishigsuren 2006; Hoque & Chishty 2011). Over time, managers of MFIs perfect business models, learn through experience, broaden financing options and steer MFIs into financial sustainability. MFIs thus age towards financial sustainability as they develop into large and stable institutions with extended outreach (Schneider & Greathouse 2004). The development of MFIs into financially sustainable institutions according to Schneider and Greathouse (2004) requires that MFIs integrate into local financial systems. Integration allows MFIs to increase leverage, capitalise on deposit collection and access capital markets in raising funding for growth in a bid to increase outreach.

The life cycle theory (LCT) has been applied in various academic fields with its application in commerce being popularised by Porter (1980) (marketing – product development; management – strategy formulation, financing strategies; firm development, etc). Despite the popularity of the LCT, its application in microfinance has remained negligible. There is little, if any, evidence for the transition suggested by the LCT in explaining MFI development proxied by financial sustainability. Past LCT-based studies (Schneider & Greathouse 2004; Maisch 2011; Campion & White 1999) focused more on the problems of and how MFIs evolved into commercialised

⁴⁴ A research paper based on this chapter titled: 'Life Cycle Theory and Financial Sustainability of Selected SADC MFIs' was presented in Port Elizabeth at the 5th International Financial Services Conference, 29 September – 1 October, 2015. The paper was presented again in Dubai at the Australia-Middle East Conference on Business and Social Sciences (AMCBS), April 17-18, 2016. The paper has been published as a conference proceeding for the AMCBS as well as in the Journal of Developing Areas Special Issue on the AMCBS.

institutions and the benefits thereof. Little effort has been channelled into gathering evidence of the feasibility of the LCT in explaining financial sustainability.

The latest attempt by Bogan (2012) to make use of the LCT in explaining financial sustainability of MFIs did not favour the LCT. Her study investigated MFIs whose asset values were at least \$1.3 million and had disclosure⁴⁵ levels of at least 3 diamonds. The study used a global sample in its quest for high-quality data and hence did not focus on any particular region. In agreement with the LCT, MFIs with high asset values and high disclosure tendencies did not attain such status over-night but went through growth phases – thus, revisiting the LCT is justified.

A key realisation is that not all regions have high asset value and high disclosure MFIs. Cull et al. (2009:19) noted that “the exact nature of trade-offs in microfinance differ across regions, but meaningful trade-offs need to be recognized and weighed everywhere.” In that context, this chapter extended the exploration of how MFI age related to financial sustainability by focusing on selected SADC⁴⁶ MFIs. Given that microfinance in the SADC region is growing, delineating whether MFIs ‘get better with age’ is a worthy cause given the need to fight poverty. This chapter considered low and high asset value MFIs that characterised the microfinance sector in the SADC. The study was not ‘diamonds-based’ as MFI reporting is inconsistent in SADC. Questions were: Is the LCT confirmed in the SADC? If so, what then explains financial sustainability in the SADC region and what are the practical lessons thereof?

From a practical perspective, the curatorship of the African Bank – once the largest microfinance bank in the SADC (Jones 2014) and the wide-spread failure of seemingly ‘mature’ MFIs in the SADC (Karim et al. 2011) questions the LCT. The expectation is that MFIs’ business models, asset quality and financing methods improve over time as MFIs learn from mistakes and hence position themselves for financial sustainability. Based on the theoretical dictum of the LCT whereby MFIs are expected to mature towards financial sustainability through commercialisation, this chapter queries the following hypotheses:

H₁: ‘New’ MFIs are financially un-sustainable.

⁴⁵Disclosure is indicated by diamonds in microfinance. The best reporting MFIs are accorded five diamonds whilst the poorest reporting MFIs might not have any diamond.

⁴⁶ The region is poverty stricken and has a high incidence of MFI un-sustainability (SADC 2014; Karim et al. 2011).

H₂: ‘Mature’ MFIs are financially sustainable.

The chapter is structured as follows: Section 4.2 reviews the literature on microfinance, financial sustainability and the LCT. Section 4.3 details the data gathered and econometric methods used whilst the results and the chapter summary appear in sections 4.4 and 4.5 respectively.

4.2 Literature review

4.2.1 Microfinance and financial sustainability

Though the microfinance schism⁴⁷ (Morduch 2000) has been in the spotlight of microfinance debates in the past decade, spurring fears of mission drift,⁴⁸ the general assumption is that microfinance is a solution to poverty (Johnson 2015; Iezza & La Cour 2010; Zerai & Rani 2012). Microfinance is on record for improving access to education and health for the poor, providing better diet, creating employment and promoting the emancipation of women (Sekabira 2013; Borbora & Sarma 2007; Hoque & Chisty 2011). But what is microfinance?

Earlier studies (Llanto et al. 1996 and Stiglitz & Weiss 1981) found that banks were deterred from lending to the poor owing to lack of credit history, high transaction and administration costs associated with small loans, lack of collateral security, adverse selection and moral hazard hence credit rationing. Microfinance replaced asset security with social capital⁴⁹ thus; loans can be extended to the poor tapping into the depth of the core poor whilst suffering limited non-repayment (Kuma 2012). Microfinance thus refers to the move meant to enable the poor and the financially excluded and un-served to access financial services and products (Brau & Woller 2004; Copestake 2007; Paul 2010). Robinson (2001) and Morduch (1999) regard the provision of small loans, the attraction of small deposits as well as the provision of a multiplicity of financial services and products to the poor and female clients as the distinguishing feature of microfinance. Khandker (2001:2) further asserts that microfinance denotes “...transactions in small amounts of both loans and savings, involving small-scale and medium business and

⁴⁷A fallout between microfinance practitioners as some prefer the social mission over the financial mission of microfinance. Institutionists back the financial mission (Brau & Woller 2004). Welfarists believe that seeking financial sustainability leads to mission drift. Institutionists oppose the use of donations in the fight against poverty because of its uncertainty, limited amounts and un-sustainability (Morduch 1999; Sheriff 1997).

⁴⁸ Failure to serve the poor due to costs involved.

⁴⁹ Linkages and relationships within a society that make the society function effectively.

producers.” The realisation is that the poor are mostly un-served by formal financial institutions as they do not meet the income thresholds required by banks (Modurch 1999). Vulnerable groups such as women are served by microfinance on the assumption that culturally they are economically disadvantaged and thus require empowerment.

However, the poverty alleviation role of microfinance hinges on the assumption that, MFIs exist eternally (financial sustainability) or infinitely (‘permanency’ - Khawari 2004) to solve social ills (Brau & Woller 2004; Ek 2011), a condition that has remained elusive for most MFIs in the SADC region (Karim et al. 2011). Nyamsogoro (2010) underscores the importance of financial sustainability noting that having no MFIs is better than having unsustainable ones. Financial sustainability thus assures clients of a continued supply of credit, amplifying the tenacity of the continuous fight against poverty.

Financially sustainable MFIs capitalise on scales, are cost conscious, are innovative in lending (by reducing administrative and information asymmetry costs) and have lower adverse selection and moral hazard; hence they can lend at lower rates to the poor (Quayes 2012; Paul 2010; Paxton 2002). Given the massive applauding of financial sustainability of MFIs as additive to their efficiency and pronounced outreach (Brau & Woller, 2004), there has been a marked movement towards attaining financial sustainability (Hallway et al. 2011). However, MFIs, unlike other financial institutions are unique as their operations hinge on the double bottom lines.⁵⁰ Financial sustainability for MFIs thus has a unique meaning since it must not be an end in itself (Rhyne 1998) but must accommodate the social aspect too. What then is financial sustainability of MFIs?

Financial sustainability defines the ability of an MFI to operate viably and thus can afford operational, financial and other transaction costs (doing well by doing good adage of Brau & Woller 2004). Referring to the Grameen Bank, Khandker (1996) notes that the bank is financially sustainable if the cost per Taka⁵¹ being lent is matched with the interest charged per Taka to clients. Financial sustainability can only be attained where interest charged per unit of principal on loans extended to clients exceeds the associated costs of raising the principal. Otero and Rhyne (1994) as cited by Von Pischke (1996:9) define financial sustainability as “...the

⁵⁰ Social and financial mission (Murdoch 1999; Kumar 2012)

⁵¹ Unit of currency used in Bangladesh (country hosting the Grameen Bank).

lender's capacity to operate for a considerable period of time, measured in decades, independent of subsidies or altruistic support." MFIs that seek financial sustainability thus charge commercial market rates on loans, make use of commercial funding, operate independently of donations and are able to further their outreach (Sekabira 2013).

Financial sustainability of MFIs therefore is consistent with the Institutional Paradigm⁵² (Gonzalez–Vega 1994), which supports institutional viability and thus is central to the continued provision of financial services to the poor. Viability is defined by the charging of market interest rates on loans as a way of raising revenue to cover operational costs and financial costs and make provision for profits. Morduch (2000) in his argument on the microfinance schism states that microfinance is two-pronged: it seeks to combat poverty whilst promising institutional capacity through the invention of cost–efficient lending mechanisms. This ensures that development pays for itself and thus can realise excesses that can fund further outreach permanently (CGAP 2004).

Despite evidence showing that financial sustainability has been associated with mission drift (Quayes 2012; Cull et al. 2007; Ek 2011); some MFIs have demonstrated the capacity to operate without donor funds and subsidies (Bogan 2012). Manos and Yaron (2009) identified a positive short–run bond linking outreach and financial sustainability with the long–run association based on the scale of operations and innovation in lending. Pro-sustainability advocates such as Rhyne (1998) posit that as the MFI develops, so do its clients; thus, at the integration stage,⁵³ the loans granted to clients will not be small anymore. Effectively, mission drift will not be linked to loan size. Notable, however, is that more clients are being served by sustainable MFIs.

Movement towards financial sustainability has seen the lowering or shedding of grants and subsidies in the capital structure of NGOs (Kimando et al. 2012) as donors' record in providing capital for development is unpredictable (Ayayi & Sene 2010; Bulir 2006). Furthermore, there has been a pronounced call to wean NGOs from donations on the basis of dwindling donations, conditions attached to donations and the increasing demand for microfinance versus limited resources (Abdelkarim 2002; Hudon & Traca 2008). The search for financial sustainability by NGOs thus entails a drastic shift in their capital structure. NGOs' solicitation of funding from

⁵² A principle that backs the existence of viable institutions as a tool for poverty alleviation

⁵³ LCT stage where an MFI enters main-stream financial system by turning into an MFI bank

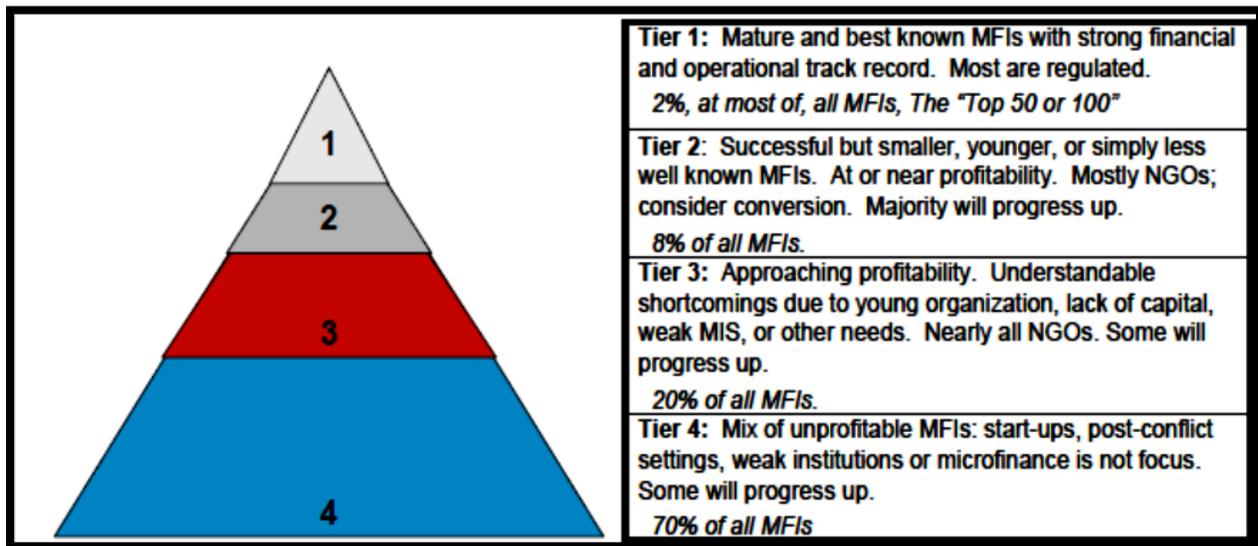
international private investors (who require returns), credit from banks and authorisation to collect deposits has shown that “...transformations from non-regulated microfinance NGOs into regulated microfinance institutions have allowed the world to see that microfinance can operate in an open market and be sustainable” (Maisch 2011:4). NGO transformation includes raising of equity, licensing, especially where deposits are collected, bond issuance and investing in skilled staff (Maisch 2006). Such institutional changes buttress the MFI age-related development argument as outlined by the LCT.

4.2.2 Life cycle theory and financial sustainability

The LCT has been applied in showing the transition and development of firms from establishment till maturity. It also explains product development (introduction into the market, sales growth, maturation and decline of sales – Porter, 1980). MFIs, though they are sanctioned by the dual bottom lines, just like any other firm, evolve and develop in line with the LCT. What, however, is the LCT in relation to MFIs?

de Soussa-Shields and Frankiewicz (2004:1) define the LCT as “...a powerful concept that observes how businesses and industries are born, grow, mature and eventually die. At each stage, they share a set of common market development, management capacity and financing structure characteristics.” The LCT as a “...maturational and generational process” linked to the biological nature of human life (O’Rand & Krecker 1990:242) has been the basis for the formulation of financing, marketing, costing, survival, growth and production strategies for firms (Porter 1980).

The LCT points to MFI development towards financial sustainability. The development captures the use of commercial funds (private capital invested either directly by the owners or through intermediaries) in financing operations, sound management, innovation, the charging of commercial interest rates on loans, reduced operating cost, low portfolio at risk as well as great stability and outreach (de Soussa Shields & Frankiewicz 2004). MFIs that pursue financial sustainability can either be commercially oriented on establishment or NGOs that are transforming into fully-fledged commercial MFIs. In this regard, the manner of development considers the initial MFI charter. MFI transition suggested by the LCT is shown in Figure 4.1.

Figure 4.1: LCT stages and the expected financial sustainability levels

Adapted from Meehan (2004)

The growth prospects of MFIs commercially oriented on establishment are constrained by imperfect business models, competition and operational challenges. The small commercial MFIs according to Reinke (2000:9) "...are also less well capitalised, less well developed institutionally, and without a banking license." Champion and White (1999) identified the institutional perspective⁵⁴ and the industry perspective⁵⁵ as the major drivers of MFI transformation. According to Schneider and Greathouse (2004:2) "as microfinance institutions evolve, capital and funding structures change: leverage increases and sources of funds become more diverse, more commercial, and more sustainable". Innovative mature MFIs capitalise on cost-efficient information systems, adding to financial sustainability (Reinke 1998). Information systems allow for the collection of deposits, screening of borrowers (reducing defaults) and collection of repayments. This development opens up new funding options for MFIs (issue bonds and shares, borrow and attract deposits – Maisch 2006), improved loan repayment (forced savings can be used to re-pay loans), better governance (as per statutory stipulations), extended outreach, better leverage and avoidance of capital shortages (Champion & White 1999).

⁵⁴ Making use of financial information systems in MFI development and evolution

⁵⁵ A trend based on the belief that transformation commercializes microfinance.

The evolution of NGOs is different from that of commercially oriented MFIs. de Soussa-Shields and Frankiewicz (2004) notes that the shift to private capital by NGOs⁵⁶ has already begun and some MFIs are being found fully funded by private capital. Figure 4.2 shows how the funding of NGOs evolve as they integrate into local financial markets and attain financial sustainability. According to Kapper (2007) and de Soussa and Frankiewicz (2004), NGO evolution is as follows:

4.2.2.1 Start up phase

MFIs are financed through donations and concessionary funds. Though the market is untapped in this phase, setting up systems and lack of experience mean that profits are hard to come by. MFIs exist on a tight budget and are not financially sustainable and cannot access financial markets.

4.2.2.2 Expansion phase

The emphasis is more on the extension of operations, especially after solving operational challenges in the prior phase. This is usually the stage at which the business model is open for testing, and if it is good enough and operations expand, the outreach expands.

4.2.2.3 Consolidation phase

MFIs in this phase start to invest in attaining sustainability (Meehan 2004). The goal is to formalise operations (observing regulation that allows, amongst other things, the attraction of deposits).

4.2.2.4 Integration phase

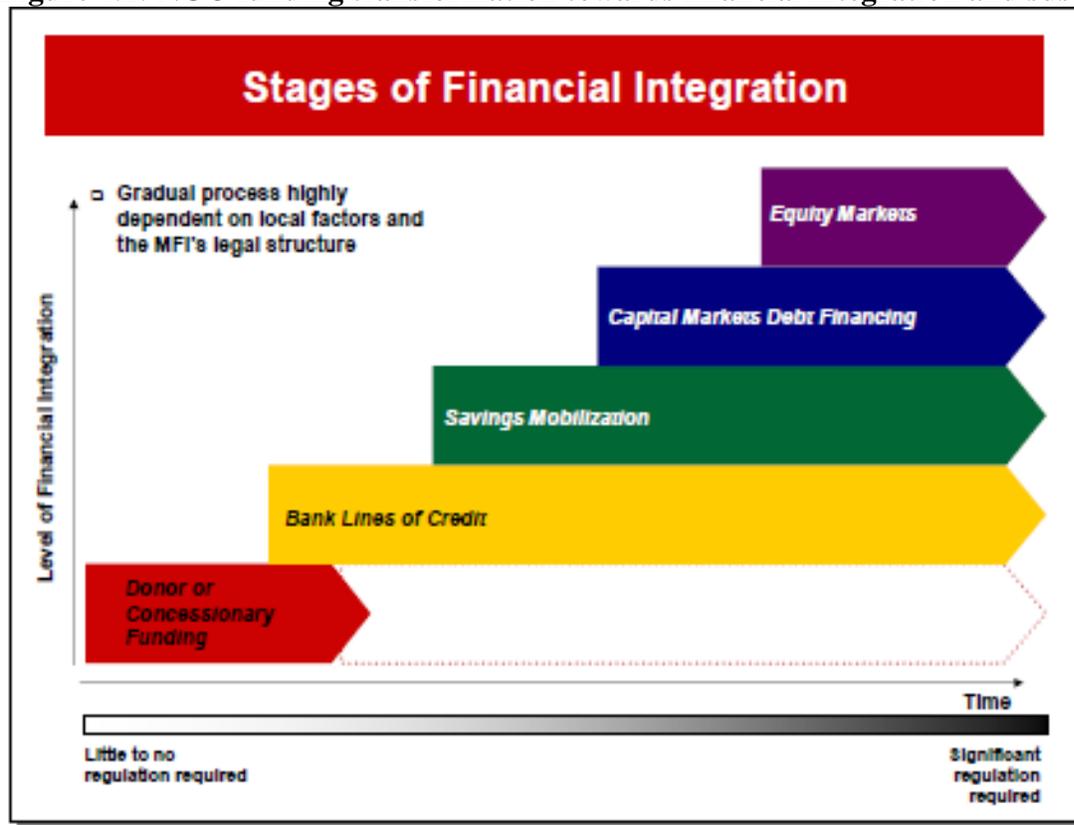
MFIs enter the mainstream financial sector by turning into formal microfinance banks. Subsidies and grants are no longer part of the capital structure of the MFI; thus, institutions become financially sustainable and profitable and have access to financial markets.

de Soussa and Frankiewicz (2004) summarise the LCT into three stages as follows: at 0—4 years, the phase is called ‘new’; at 5—8 years, it is termed ‘young’; and at more than 8 years it is dubbed ‘mature’. New MFIs are not financially sustainable and rarely turn a profit though some may occasionally reach operational sustainability. Young MFIs are mainly operationally sustainable and at times are financially sustainable and profitable whilst mature MFIs are

⁵⁶ NB: NGOs are not the only MFIs whose evolution is reminiscent of the LCT, but other un-sustainable, small and unstable MFI charters that could be commercially oriented.

financially sustainable (de Soussa & Frankiewicz 2004). Meehan (2004) concurs with the writings of de Soussa and Frankiewicz (2004) on the maturation of MFIs towards financial sustainability.

Figure 4.2: NGO funding transformation towards financial integration and sustainability



Adapted from Schneider and Greathouse (2004)

Reink (2000) in a study meant to chronicle the institutional development of microfinance in Southern Africa noted that the old adage of microfinance being viewed as low-end provider of credit facilities in remote communities had been replaced by an affinity for financial sustainability and attaining bank status. The study found that NGOs adopted corporate sector management practices as they upgraded to regulated institutions licensed to collect deposits. Sekabira (2013) writes that as NGOs wean themselves from subsidies, they begin to approve cost-competent practices that steer NGO operations towards financial sustainability and better service provision for the poor. Maisch (2011) on evidence of NGOs adopting commercial means writes that NGOs such as Bancosol, FIE, Caja Los Andes and Prodem in Bolivia; Confianza, Mibanco, Edyficar and Crear Arequipa in Peru; Bancamia, Banco WWB in Colombia; and

Compartamos and CAME in Mexico are recent NGOs that transformed into regulated MFIs. Maisch (2006) notes that NGOs have been focusing strongly for a long time on how best to extend and recover loans in pursuit of financial sustainability.

Ideally, NGOs depend on donations as they seek commercial funding in the process of transforming into sustainable MFIs. Overall, the evolution suggested by the LCT implies that mature MFIs are financially sustainable after investing in sharpening the business model, learning from mistakes as well as capitalising on information systems that are cost-efficient and reduce default risk. Notable is the increased access to various financing sources, which lowers the cost of capital and provides improved risk management and increased profitability (Maisch 2011). However, regulatory provisions, profitability, regulation status, accessibility of donations and country-specific factors contribute to the development of MFIs (Schneider & Greathouse 2004).

Given the interesting MFI growth processes, it is of practical significance to know what can explain the delay in attaining financial sustainability if the LCT holds true and hence suggest ways of quickening financial sustainability in the SADC region given the need to fight poverty. Given the known opportunities of growing into a sustainable MFI, this effort is desirable.

4.3 Data and methods

4.3.1 Population

The population embraced the diversity of MFIs from across 15 countries in the SADC region. However, limited access to data for all MFIs in the region prompted the consideration of SADC MFIs reporting on the MIX.⁵⁷ Data accessed spanned 1997-2013 though only 11 countries (Angola, the Democratic Republic of Congo, Madagascar, Malawi, Mozambique, Namibia, South Africa, Swaziland, the United Republic of Tanzania, Zambia and Zimbabwe) had reporting MFIs on the MIX. Seychelles, Mauritius, Lesotho and Botswana had no reporting MFIs and hence were excluded from the population. The data accessed was grossly marred by

⁵⁷ MIX is a website (www.mixmarket.org) that presents microfinance data voluntarily submitted by MFIs across the world. This website has become a dependable source of data for microfinance related studies. Data on MFI financing structure was accessed after subscribing to MIX in order to have premium access to the financial statements.

MFI reporting inconsistencies as MFIs did not report consistently on an annual basis over the study period. A total of 122 MFIs reported their financials over the period 1997–2013. Details of the 122 MFIs from the 11 countries that constituted the population are shown in Table 4.1.

Table 4.1: Population description⁵⁸

MFI characteristics	Number of MFIs	% of population
<i>MFI Charters</i>		
Banks	20	16,4
Cooperatives/credit unions	24	19.7
NGOs	45	36.8
Rural banks	2	1.6
NBFIs	31	25.5
<i>Other Characteristics</i>		
Collect deposits	81	66%
Regulated	66	54%

Source: MIX Market

NGOs accounted for the biggest proportion (36.8%) of the population of MFIs signifying their popularity in the region. Notable is that more than half of the population (66%) collected deposits, implying that they were largely regulated.⁵⁹ Key variables for the study such as MFI age,⁶⁰ financial sustainability measure (OSS), financing structure, charter forms, deposit collection status, number of active borrowers, regulation status, gross loan portfolio, profit status, lending rate (proxied by real yield⁶¹) as well as value of assets were provided. Efficiency and risk management measures (CPB⁶² and PAR⁶³) were also provided. Subscribing to the MIX allowed

⁵⁸ The table has two components: MFI charters add up to 100% whilst each characteristic is expressed as a fraction of 122 MFIs.

⁵⁹ Though regulation does not imply ability to attract savings, it is a requirement for most deposit-taking institutions across SADC countries.

⁶⁰ The classification of de Soussa –Shields et al. (2004) was used (0 - 4 years = new; 5 - 8 years = young; and > 8 years = mature). This criterion is adopted to allow for comparison of results with prior studies (Bogan 2012) that tested the same hypotheses.

⁶¹ This is the lending rate adjusted for inflation prevalent in the host country and thus captures the state of the macro-economy too.

⁶² Cost per borrower is used as one of the measures of cost efficiency.

for premium access to MFIs' financial statements. Many of these variables serve as control variables in the analysis. The data accessed did not cover the entirety of the microfinance sector in the SADC region. Rather, MFIs keen to meet the MIX's strict reporting benchmarks were represented. Despite this self-selection bias, MIX data remained instrumental as it a publicly available and reliable source of microfinance data given that many microfinance-related studies (including those done by and on behalf of organisations such as the World Bank and the IMF) exploit the same database. Moreover, MFIs with noticeable operational scales and impact normally report on the MIX, making the website's coverage ideal for appreciating the microfinance landscape.

4.3.2 Sample selection criteria

The study considered the commercialisation trend in MFI financing. Chapter 2 noted that commercialisation is a reality in the region's microfinance sector. How then is the commercial-orientation of MFIs determined? Cull et al. (2009:10) wrote that

...a rough estimate of classification of the extent to which MFIs in the sample are profit-oriented is based on their sources of funding. We hypothesize that greater reliance on commercial sources of funding than non-commercial sources would lead an MFI to be more profit-oriented.

The same criterion was adopted in this study. Being profit oriented is an indication of an MFI that is adopting commercialisation⁶⁴. However, the realization is that MFIs that were hugely commercially financed still had low subsidies⁶⁵ in their financing structure. This substantiated claims by de Aghion and Morduch (2005) that 'smart subsidies' could still finance financially sustainable MFIs.⁶⁶ The study also considered MFIs operating as NGOs whose financing structure was now hugely commercialised and that were mostly profitable indicating their

⁶³ Portfolio at risk — outstanding loans in excess of 30 days as a percentage of the gross loss portfolio (Bogan 2012) is a measure of risk or quality of loan portfolio.

⁶⁴ Microfinance literature equates the seeking of profits by MFIs with commercialization. Social mission oriented MFIs naturally do not seek profits but exist to serve the poor.

⁶⁵ In this study, subsidies were interpreted to mean donations or grants and hence were interchanged.

⁶⁶ In Chapter 3 findings on the weaknesses of the LCT describe the trend whereby donations have moved from the financing of start-up and high-risk small MFIs to mature, large and stable MFIs.

commercialisation alignment (Quayes 2012). NGO transition into commercial institutions is akin to institutionalism whereby the altering of “...the management structure, operational efficiency, and sources of financing to resemble those more like a for-profit institution” is in process (Johnson 2015:122). As shown earlier, NGOs gradually transform into commercial MFIs by meeting certain regulatory requirements though their business and financing models would have long adjusted to imitate those of commercial MFIs.

Periodic SADC Finscope microfinance surveys always lament the lack of data in the region. Given the need to maximise data points against inconsistent MFI reporting, sampling resorted to the selection of a period with the best MFI reporting incidence. The period 2005-2010 recorded adequate MFI reporting and thus was selected for the study. Applying the sample selection criteria to the reporting MFIs for the period 2005-2010 and ignoring poor-reporting MFIs for the same period yielded 60 MFIs. Catering for un-even reporting over the six years (2005-2010), an unbalanced panel was assumed (a description of the function and relevance of the panel framework in this study is provided in Section 4.3.3). A full description of the sample is provided in Table 4.2 whilst Table 4.3 details the MFI sample distribution by country.

Table 4.2: Sample details⁶⁷

Characteristics	Number of MFIs	% of the sample
<i>MFI charters</i>		
NGOs	21	35
Banks	10	17
Cooperatives	11	18
NBFIs	17	28
Rural Bank	1	2
<i>MFI age</i>		
New	14	23.33
Young	12	20
Mature	34	56.67
<i>MFI characteristics (% of 60)</i>		
Regulated	46	77

⁶⁷ The sample comprised 60 MFIs. MFI charters (banks, rural banks, NBFIs, cooperatives and NGOs) amounted to 100%. MFI age categories (new, young and mature) amounted to 100%. Deposit collection, regulation status and profit orientation are critical MFI features that were expressed as a fraction of 60 MFIs constituting the sample.

Collect deposits	51	85
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Source: Author's compilation

It is important to note that regulation may either unlock deposit attraction⁶⁸ by MFIs or enable the transformation of NGOs into registered commercial MFIs. This study assumed that regulation was any basic legal provisions that MFIs were subjected to or required to conform to. However, there is a cost attached to regulation such as capital requirements, reporting and information system upgrade requirements. These costs may constrain financial sustainability. Non-involvement of regulators makes the formation and operation of MFIs less costly. MFIs thus can operate as regulated or unregulated MFIs (Hartarska & Nadolnyak 2007). All the same, regulated MFIs are on record for being more efficient and innovative as they seek to overturn the brunt of regulation costs. Whilst profit-motivation of MFIs is treated as akin to commercialisation, profit orientation does not imply anything about the MFI age. An MFI can be profit motivated and can still be new, young or mature. Furthermore, profit orientation does not necessarily define whether an MFI is regulated or not.

Table 4.3: Sample MFI distribution by country

Country	Number of MFIs selected	% of the sample
Angola	2	3.33
DRC	10	16.67
Madagascar	10	16.67
Malawi	7	11.67
Mozambique	8	13.33
Namibia	1	1.67
South Africa	3	5
Swaziland	1	1.67
Tanzania	12	20
Zambia	4	6.67
Zimbabwe	2	3.33

Source: Author's compilation

Tanzania had the highest representation in the sample followed by the DRC and Madagascar. The least represented countries were Namibia, Swaziland, Zimbabwe and Angola. The least represented countries include Namibia, Swaziland, Angola and Zimbabwe. The next section details the panel framework and its applicability for the analysis required in this study.

⁶⁸ This is defined more by the country-specific legal provisions.

4.3.3 Panel framework

Researchers not only in microfinance have adopted panel data framework as a way of increasing the degrees of freedom as well as capturing the complex relationships across various disciplines. Some examples of microfinance-related studies that employed panel methods are presented in Table A.4 in appendices. This section presents the functionality of the panel framework and its suitability for this study.

Panel data (longitudinal data) represents a blend of time series observations of a number of MFIs. Panel data mostly entails two dimensions: a cross-sectional element indicated by subscript i as well as a time series facet signified by subscript t (Hsiao et al. 2002; Hsiao. 2006; Baltagi 2002; Baltagi 2001). Panel data has been popular in research as it enables "...greater capacity for modeling the complexity of either human or economic behavior" (Hsiao et al. 2006:1) compared to cross-sectional or time series data. Other outstanding benefits of embracing panel data in research include the ability of panel methods to blend 'inter-individual' variation and 'intra-individual' dynamics, thereby effecting the following:

- i. A more precise inference of model parameters (more degrees of freedom and more variability unlike in pure cross sectional or time series data) thereby improving the accuracy of econometric assessments.
- ii. The ability to encapsulate the intricate individual behaviour of objects under study (more information is embodied in panel data).
- iii. The effect of omitted variables is addressed in panel models.
- iv. Dynamic relationships amongst variables can be tracked. Most economic links are naturally dynamic; thus, panel data enable interesting explicit and implicit relationships to be exploited.
- v. More accurate forecasts for individual behaviours by engaging pooled data as opposed to initiating forecasts of individual effects based on data for the individual concerned.
- vi. The analysis of econometric theories based on both micro and macro panels is possible.

Given the need to model MFI-specific effects in understanding the relationship between MFI age and financial sustainability, panel data was engaged to unlock the intricate relationships that constituted the heterogeneity of MFIs. Since panel data is capable of capturing the time-varying

effects of the different LCT stages, the capital components as well as the un-observed heterogeneity (which can be assumed to be a random or a fixed parameter), it emerged as the best framework to employ.

Based on Coleman (2008), the structural panel model is presented as follows:

$$Y_{it} = \alpha + \beta X'_{it} + u_{it} \dots\dots\dots \text{Equation 4.1}$$

Where:

Y_{it} = dependent variable, α is a constant, $i = 1, \dots, N$ and $t = 1, \dots, T$ ⁶⁹ whilst X'_{it} stands for a K-dimensional vector of explanatory variables exempt from the error term u_{it} . Most important is that u_{it} can be decomposed into the un-observed MFI-specific effects (u_i) whilst the rest of the disturbances are embedded in v_{it} . This can be presented as follows:

$$u_{it} = u_i + v_{it} \dots\dots\dots \text{Equation 4.2}$$

Where v_{it} fluctuates in accordance with cross-sectional variables and time alike; hence, it accommodates all the white noise in the estimation. Greene (2002) acknowledges that the panel structural model can be adjusted to suit un-balanced panel data as assumed in this study. Given the inconsistency in the reporting incidence of MFIs, an un-balanced micro panel was used in this study capitalising on the strength of the panel framework.

Greene (2002) notes that where u_i is unrelated to X_{it} , a random effects (RE) model is the best estimator. The RE model concedes a restraint on the heterogeneity of MFIs; thus, the relationship can be expressed as follows:

$$Y_{it} = \beta X_{it} + \alpha + u_{it} + v_{it} \dots\dots\dots \text{Equation 4.3}$$

Where u_{it} captures between-entity error and v_{it} stands for within entity error. Therefore, RE models can be used where variation amongst MFIs has an influence on the dependent variable (Torres-Reyna 2010). Effectively, time-invariant variables can be included in the estimation. Differences across MFIs are presumed to be random and hence uncorrelated with the regressors in the estimation.

Once the restriction on the heterogeneity of MFIs is relaxed (allowing u_i and X_{it} to be correlated), a fixed effects (FE) model is fitted. “FE model remove the effect of those time-invariant

⁶⁹ $i = 1, \dots, 60$ MFIs and $t = 1, \dots, 6$ years.

characteristics so we can assess the net effect of the predictors on the outcome variable” (Torres-Reyna, 2010:9). FE models are guided by the assumption that time-invariant MFI features are peculiar to individual MFIs; hence, there is no need for a correlation with other MFI characteristics. The FE model thus can be expressed as follows:

$$Y_{it} = \beta_1 X_{it} + \alpha_i + u_{it} \dots \dots \dots \text{Equation 4.4}$$

Since the FE model manage all time-invariant variations among MFIs, omitted time-invariant variations cannot make the estimation biased. The ability to align with either RE or FE is enhanced by the Hausman test allowing for a fair estimator to be settled for.

Panel methods allow extensions in modelling the relationship between MFI age and financial sustainability. Panel methods allowed for clustering, in other words, a robust treatment of errors of the Eicker-Huber-White framework (Nicholas & Schaffer 2007). No correlation amongst groups is assumed whilst allowing within-group correlation. Such clustered robust standard errors move towards the true standard errors as the number of clusters approaches infinity.⁷⁰ In-built STATA commands `vce(robust)` or `vce(robust MFIid)` are used in estimating cluster-robust standard errors.

The major weaknesses of panel methods include heteroskedasticity and autocorrelation. However, the assumption of robust standard errors limits such. To further create robust results, the Breusch-Pagan Lagrange multiplier (LM) for random effects is run to decide on the best estimator between an RE and an ordinary least squares (OLS) model. Tests for contemporaneous correlation (cross sectional correlation) are done capitalising on the Breusch-Pagan LM test of independence. Whilst serial correlation is a problem in macro panels (20-30 years), micro panels (used in this study) are mostly immune to serial correlation (Torres-reyna 2007).

4.3.4 Econometric estimation

In line with the methodology of Bogan (2012), Sekabira (2013) and Nyamsogoro (2010), a linear panel regression model was used with financial sustainability as the dependent variable and MFI

⁷⁰ Evidence shows that at least 50 clusters are enough to give sound results under clustered standard errors.

age dummies as independent variables. Controlling for MFI characteristics gave the following estimation equation:

$$\text{Financial Sustainability} = \beta_0 + \sum \beta_j X_{it} + \sum \beta_k Y_{it} + \varepsilon_{it} \dots \dots \dots \text{Equation 4.5}$$

Thus the model can be stated as follows:

$$\text{fin_sus}_{it} = \alpha_i + \beta_1 \text{mature}_{it} + \beta_2 \text{new}_{it} + \beta_3 \text{EA}_{it} + \beta_4 \text{DA}_{it} + \beta_5 \text{BA}_{it} + \beta_6 \text{DTA}_{it} + \beta_7 \text{PAR}_{it} + \beta_8 \text{For_profit}_{it} + \beta_9 \text{log_Assets}_{it} + \beta_{10} \text{log_NOAB}_{it} + \beta_{11} \text{log_GLP}_{it} + \beta_{12} \text{regulated}_{it} + \beta_{13} \text{CPB}_{it} + \beta_{14} \text{RY}_{it} + \beta_{15} \text{Bank}_{it} + \varepsilon_{it} \dots \dots \dots \text{Equation 4.6}$$

Where

Financial Sustainability is measured as follows:

$$\text{OSS} = \frac{\text{Total financial revenue}}{\text{Financial expenses} + \text{operational costs} + \text{loss on loan expenses}}$$

Financial sustainability is defined as an OSS measure greater than 110% whilst an OSS between 100% and 110% defines operational sustainability. An OSS measure below 100% defines unsustainability of an MFI (see Bogan 2012; Sekabira 2013; Rosenburg 2009).

X represents MFI age dummies as per the framework⁷¹ of de Sousa and Frankiewicz (2004). Since the study covered a six-year period, MFIs were expected to graduate to a new age phase. To cater for that, age classification was adjusted to encompass the age transition in each period. Considering degrees of freedom,⁷² dummies were used for new and mature MFIs. Since the LCT suggests that MFIs start out being unsustainable (new) and end up being sustainable (mature), this study used these two growth phases for easy verification of the LCT since only two growth phases can be included in the model. A deliberate dropping of one of the growth phases and the inclusion of the young MFI growth phase gives model 2.

Y represents MFI characteristics that affect financial sustainability of MFIs. Financial sustainability depends on portfolio quality, which testifies to management's competence. PAR at 30 days and CPB were used as proxies the portfolio quality and cost–efficiency. The dummy for regulated MFIs was assumed as such MFIs are licensed to attract deposits – a deviation from

⁷¹ 0 — 4 years = new; 5 — 8 years = young; and > 8 years = mature. This framework by de-Soussa Shields (2004) is adopted to allow for comparison with prior studies. New MFI category formulates 23% of the sample whilst young and mature constitute 20% and 57% respectively.

⁷² Since there are three MFI growth phases, n-1 namely 3-1 phases were used in the study (note that entering three growth phases in STATA would result in one phase being eliminated automatically)

forced deposits that are mostly not used for loaning (Karim et al. 2011). Since the LCT denotes that MFIs end up as banks at integration stage, a bank dummy was incorporated too.

Financing options were also included (EA – equity/Assets; BA – borrowings/assets; DTA – deposits/assets; DA – donations/assets). Smoothing was achieved by scaling funding alternatives against assets. Profit orientation is pro-financial sustainability whilst the clients served tend to increase upon attaining financial sustainability hence, the inclusion of log of number of active borrowers (log_NOAB) and the profit status of an MFI (profit_status). Log_GLP stands for log of the gross loan portfolio with the error term captured under ϵ_{it} . Since financial sustainability is dependent on the lending rates (Khanker 1996) used by MFIs as well as macro-economic fundamentals in the host country, real yields (RY)⁷³ were incorporated to account for lending rates adjusted for inflation in the host country. A summary of the variables and the codes used for the same in the model is provided in Table 4.4.

Table 4.4: Summary of variables used in the study⁷⁴

CODE	VARIABLE
<i>fin_sus_{it}</i>	Financial sustainability
<i>EA_{it}</i>	Equity to total assets
<i>DA_{it}</i>	Donations to assets
<i>BA_{it}</i>	Borrowings to assets
<i>PAR_{it}</i>	Portfolio at risk
<i>NOAB_{it}</i>	Number of active borrowers
<i>GLP</i>	Gross Loan Portfolio
<i>CPB_{it}</i>	Cost per borrower
<i>RY_{it}</i>	Real yield
<i>DTA_{it}</i>	Deposits to total assets.
<i>Profit_status_{it}</i>	Profit status
<i>log_Assets_{it}</i>	Logarithm of assets
<i>log_NOAB_{it}</i>	Logarithm of number of active borrowers

Source: Author's compilation

⁷³ Real yields are adjusted for inflation in the host country

⁷⁴ Only variables represented in the model by way of codes appear in the table.

In an effort to delineate the essence of the LCT in explaining the financial sustainability of the selected SADC MFIs, a preliminary analysis of the summary statistics is provided below.

4.3.5 Descriptive statistics and expected results

The LCT states that MFI transition to fully commercialised institutions also transforms the MFI financing structure. Tables 4.5, 4.6 and 4.7 show MFI financing options for the LCT age categories. Notable is that new MFIs are largely financed by equity, followed by borrowings. Deposits are minimal, the same as donations. When MFIs are young, borrowings will be the major financing option followed by equity (see Table 4.6). Donations remain the least used financing option after deposits. However, deposits become the major financing option for mature MFIs, followed by equity. In accordance with the propositions of the LCT, deposits are expected to further the financial sustainability of mature MFIs. In contrast, use of borrowings by new MFIs may add to their financing costs, leading to their financial un-sustainability.

Table 4.5: Financing options used by new MFIs (million dollars)

Variable	Mean	S.D.	Quantiles				
			Min	.25	Mdn	.75	Max
Deposits	0.15	0.21	0.00	0.00	0.08	0.22	0.84
Donations	0.09	0.39	0.00	0.00	0.00	0.02	2.94
Equity	0.50	0.31	-0.08	0.20	0.57	0.75	0.97
Borrowings	0.25	0.31	0.00	0.00	0.11	0.43	1.24

Source: Author's compilation

Table 4.6: Financing options used by young MFIs (million dollars)

Variable	Mean	S.D.	Quantiles				
			Min	.25	Mdn	.75	Max
Deposits	0.26	0.26	0.00	0.04	0.17	0.45	0.89
Donations	0.17	0.37	0.00	0.00	0.03	0.13	2.00
Equity	0.41	0.27	0.04	0.20	0.32	0.62	0.95
Borrowings	0.47	1.46	0.00	0.00	0.18	0.39	8.36

Source: Author's compilation

Table 4.7: Financing options used by mature MFIs (million dollars)

Variable	Quantiles							
	Mean	S.D.	Min	.25	Mdn	.75	Max	
Deposits	21.14	133.90	0.00	0.00	0.11	0.41	879.29	
Donations	0.18	0.49	0.00	0.00	0.00	0.14	3.46	
Equity	3.66	18.71	-0.02	0.16	0.34	0.62	115.36	
Borrowings	0.18	0.21	0.00	0.00	0.09	0.31	1.04	

Source: Author's compilation

If MFIs become financially sustainable at maturity, it implies that their cost–efficiency, risk management and scale of operation improve over time. Tables 4.8, 4.9 and 4.10 show the summaries of MFI cost–efficiency, quality of loan portfolio and the lending scale for new, young and mature MFIs. Cost–efficiency is measured by the CPB whilst loan quality or risk management is measured by PAR. The natural logarithm of the number of active borrowers and the gross loan portfolio are proxies of the scale of operation. Assuming these, new MFIs are the least cost–efficient as their average CPB is \$438.18 against \$212.27 and \$172.58 for young and mature MFIs, respectively. In this case, cost–efficiency improve with age thus CPB is expected to limit financial sustainability for new MFIs. The scale of operation as measured by log_GLP improves with age; though there is a slight difference amongst new, young and mature MFIs. The GLP is important as it defines interest income for an MFI. The larger the GLP, the higher the interest income that an MFI can obtain. New MFIs are thus positioned to attract the least interest income.

Table 4.8: Cost efficiency, risk management and scale of new MFIs

Variable	Quantiles							
	n	Mean	S.D.	Min	.25	Mdn	.75	Max
CPB	62	438.18	610.80	38.93	91.94	192.30	381.45	2854.53
log_GLP ⁷⁵	62	13.66	1.97	7.77	12.65	13.87	15.19	16.38
log_NOAB ⁷⁶	62	8.18	1.41	2.83	7.72	8.21	8.93	11.41
PAR ⁷⁷	62	0.148	0.66	0.00	0.00	0.02	0.06	4.48

Source: Author's compilation

⁷⁵ GLP is measured in millions of dollars. The higher the GLP, the higher the scale of operation.

⁷⁶ NOAB estimates the lending scale of an MFI and is measured in thousands.

⁷⁷ This is expressed as outstanding loans in excess of 30 days as a fraction of the total loan portfolio.

However, given the slight difference in the GLP (13.66 for new, 14.58 for young and 15.09 for mature), mature MFIs seem not to be capitalising on widening their GLP, thereby limiting their potential in raising interest income. This trend is replicated even on the NOAB. The proficiency of mature MFIs in expanding their loan book is thus questionable given the slight differences across the MFI age categories.

Unlike the trend suggested by the LCT, PAR worsens with MI age. New MFIs recorded 14.8%, young 20% and mature MFIs 25%. The expectation is thus that poor portfolio quality for mature MFIs reduces their chances of financial sustainability compared to new and young MFIs.

Table 4.9: Cost efficiency, risk management and scale of young MFIs

Variable	n	Mean	S.D.	Quantiles				
				Min	.25	Mdn	.75	Max
CPB	62	212.27	277.62	1.46	74.02	118.73	241.32	1524.26
log_GLP	62	14.58	1.51	11.77	13.50	14.20	15.94	17.52
log_NOAB	62	9.17	1.05	6.92	8.31	9.13	9.88	11.66
PAR	62	0.20	1.32	0.00	0.01	0.02	0.04	10.40

Source: Author's compilation

Table 4.10: Cost efficiency, risk management and scale of mature MFIs

Variable	n	Mean	S.D.	Quantiles				
				Min	.25	Mdn	.75	Max
CPB	167	172.58	146.51	0.10	88.09	130.56	220.80	679.69
log_GLP	167	15.09	1.92	8.21	14.12	14.81	16.28	21.17
log_NOAB	167	9.25	1.48	5.59	8.21	9.29	9.90	14.26
PAR	167	0.25	17.88	-0.00	0.01	0.05	0.12	152.67

Source: Author's compilation

Having noted these sample-based facts, the next section analyses the intricate relationships amongst different variables that explain the LCT, making use of pair-wise correlation analysis.

4.4 Empirical results

4.4.1 Pair-wise correlation analysis

The direction of linear dependency between financial sustainability and MFI age was initially investigated by way of pair-wise (Spearman's) correlation analysis. The analysis was done in a notched way to allow for the testing of a single LCT proposition at a time. The LCT states that MFIs assume commercial financing structure at maturity. Table 4.12 presents the relationship between MFI age and financing options. Mature MFIs have a significant negative relationship with borrowings whilst young MFIs have a significant positive link with borrowings. The LCT expectation was for a positive and significant link between mature MFIs and equity, borrowings and deposits to exist. This relationship contradicts the LCT.

Table 4.11: Correlation analysis: MFI age versus financing options⁷⁸

	Mature	Young	New	Donations	Equity	Borrowings	Deposits
Mature	1.0000						
Young	-0.6038*	1.0000					
New	-0.6038*	-0.2707*	1.0000				
Donations	0.0534	0.0115	-0.0761	1.0000			
Equity	0.1114	-0.0687	-0.0658	-0.0420	1.0000		
Borrowings	-0.1262*	0.1567*	-0.0043	-0.0515	-0.0498	1.0000	
Deposits	0.1018	-0.0612	-0.0618	-0.0418	0.9041*	-0.0429	1.0000

Source: Author's compilation

In Table 4.12 the connection between financing options and financial sustainability is presented. Donations, as noted by Murdoch (2000), have a significant negative relationship with financial sustainability whilst equity and deposits have a significant positive link with financial sustainability. These findings are in line with those of Kinde (2012), who indicates that low-cost commercial sources of financing benefit financial sustainability. Though these relationships are in sync with LCT expectations, borrowings have an insignificant negative effect on financial sustainability contrary to the LCT expectations.

⁷⁸ Significance is set at 5% for all correlation analysis tables.

Table 4.12: Correlation analysis: financing options and financial sustainability

	Financial Sustainability	Donations	Equity	Borrowings	Deposits
Financial Sustainability	1.0000				
Donations	-0.1810*	1.0000			
Equity	0.1753*	-0.0420	1.0000		
Borrowing	-0.0119	-0.0515	-0.0498	1.0000	
Deposits	0.1571*	-0.0418	0.9041*	-0.0429	1.0000

Source: Author's compilation

It is also worth knowing the link between the LCT age groups and the MFI charter. The gist of the matter is to determine whether there is any specific MFI charter that is dominantly financially sustainable and hence learn from the qualities of such. Table 4.13 shows that the mature MFI category is positively and significantly connected to SACCOS whilst at the same time it has a significant negative relationship with rural banks. The new MFI category shows a significant positive link with NBFIs and a significant negative association with SACCOS. The LCT expectation that mature MFIs should be banks is thus refuted by these results. Moreover, whilst the LCT predicts that new MFIs ought to include NGOs, the results do not align with that expectation.

Financial sustainability is a function of the cost–efficiency of an MFI (proxied by CPB), appropriate risk management as indicated by the loan portfolio quality (PAR) as well as the scale of operation (the gross loan portfolio – GLP – and the number of active borrowers – NOAB). Table 4.15 reveals that new MFIs have a significant positive link with CPB whilst at the same time they have a significant negative relationship with log_GLP and log_NOAB. These results explain why new MFIs might be financially unsustainable given the likely limited revenues from the low scale of operation against poor cost–efficiency. Mature MFIs have a significant negative association with CPB indicating cost–efficiency. All scale measures have a significant positive bond with mature MFIs, thereby agreeing with the LCT, which expects scale to improve with MFI age.

Table 4.13: Correlation analysis: MFI age and MFI charter

	Mature	Young	New	NGO	Bank	SACCOS	NBFI	R_bank
Mature	1.0000							
Young	-0.6038*	1.0000						
New	-0.6038*	-0.2707*	1.0000					
NGO	-0.0120	0.0945	-0.0799	1.0000				
Bank	-0.0878	0.0421	0.0640	-0.3531*	1.0000			
SACCOS	0.2206*	-0.0996	-0.1669*	-0.3406*	-0.2099*	1.0000		
NBFI	-0.0609	-0.0760	0.1495*	-0.4661*	-0.2872*	-0.2771*	1.0000	
R_bank	-0.1370*	0.0827	0.0827	-0.0894	-0.0551	-0.0531	-0.0727	1.0000

Source: Author's compilation

Table 4.14: Correlation analysis: MFI age, efficiency measures⁷⁹ and scale⁸⁰

	New	Young	Mature	CPB	PAR	log_GLP	Log_NOAB
New	1.0000						
Young	-0.2707*	1.0000					
Mature	-0.6038*	-0.6038*	1.0000				
CPB	0.3041*	-0.0384	-0.2200*	1.0000			
PAR	-0.0520	-0.0501	0.0846	-0.0439	1.0000		
log_GLP	-0.2752*	-0.0258	0.2493*	0.1958*	-0.0802	1.0000	
log_NOAB	-0.2961*	0.0590	0.1964*	-0.2592*	0.0634	0.6344*	1.0000

Source: Author's compilation

Having noted all the prior relationships, the LCT age category that is most likely to be financially sustainable has to be investigated. This allows delineating the characteristics of that MFI age category; hence, inculcate financial sustainability across all age groups. Table 4.15 shows that new MFIs have a significant negative link with financial sustainability, as anticipated

⁷⁹ CPB – Cost per borrower⁸⁰ GLP – Gross loan portfolio and NOAB –number of active borrowers

by the LCT. However, both young and mature MFIs have an insignificant positive connection with financial sustainability thereby negating the LCT.

Table 4.15: Correlation analysis: financial sustainability and MFI age categories

	Financial Sustainability	Mature	Young	New
Financial Sustainability	1.0000			
Mature	0.0976	1.0000		
Young	0.0809	-0.6038*	1.0000	
New	-0.1987*	-0.6038*	-0.2707*	1.0000

Source: Author's compilation

Given both descriptive statistics and the pair-wise correlation analysis, a more robust way of investing the feasibility of the LCT in explaining financial sustainability is assumed. The next section capitalises on the strength of the panel framework in explaining how the LCT relates to financial sustainability.

4.4.2 Panel regression analysis

The FE and the RE models were estimated (robust standard errors were assumed). A Hausman test acknowledged the superiority of the RE model over the FE model in explaining the link between MFI age and financial sustainability. The Breusch-Pagan LM test approved the random effects model over the OLS model. The Breusch-Pagan LM test for independence failed to run, ascertaining the absence of cross-sectional correlation (contemporaneous correlation) amongst the panels. In correcting for heteroskedasticity and autocorrelation as well as incorporating cluster effects, the Hoechle (2007) methodology⁸¹ was applied.

Given the three LCT growth phases (new, young and mature), running the model required the omission of one LCT phase that served as a referral category. Interpretation of results was done with reference to the referral category. The category with the highest number of observations is normally selected as the referral category though selection can be arbitrary. Running the model

⁸¹ Use of in-built STATA command *vce, (cluster, id)* which make standard errors robust to heteroskedasticity and autocorrelation and make results cluster robust.

in STATA automatically dropped the young MFI age group (Model 1). Deliberate omission of the new age category (Model 2) confirmed the results in Model 1⁸². The models retained the same coefficients for all explanatory variables except for the MFI age dummies whose coefficients varied with the change in the referral category. The results of the models are presented in Table 4.16.

Model 1 shows that new and mature MFI dummies have a significant inverse relationship with financial sustainability relative to the referral category (young MFI dummy). Whilst the results for new MFIs resonate with the LCT expectations, the significant negative relationship recorded for mature MFIs relative to the young MFI category deviates from the positive association anticipated by the LCT. Model 2 takes the new MFI dummy as the referral category. Young MFIs have a significant positive relationship with financial sustainability relative to new MFIs whilst mature MFIs have an insignificant positive link with financial sustainability relative to new MFIs. The deduction therefore is that relative to young MFIs, both new and mature MFIs are less financially sustainable. Moreover, relative to new MFIs, young and mature MFIs are more financially sustainable though the coefficient of mature MFIs is not significant. Both the correlation and regression results tend to communicate this trend. The results thus disprove the LCT as a new trend in financial sustainability is observed (that is, young MFIs are more financially sustainable than new and mature MFIs). But what can explain this trend?

The regression and correlation results show a negative link between new MFIs and financial sustainability (see tables 4.13 and 4.14). A closer look at the descriptive statistics as well as the correlation analysis from the prior section shows that new MFIs have a significant negative link with the GLP as well as NOAB whilst the CPB has a definite positive connection with new MFIs (see Table 4.12). The negative link between new MFIs and scale measures (NOAB and GLP) shows that the average GLP for new MFIs is restrained. This is substantiated by the descriptive statistics in tables 4.7, 4.8 and 4.9 that testify that GLP is suppressed for new MFIs the same as the average NOAB when compared to young and mature MFI age phases. A low GLP entails low interest income for new MFIs (interest income is a function of the size of the loan portfolio)

⁸² Model 1 captured the new and mature MFI age dummies only whilst the young age dummy was the referral category. Model 2 gave the relationship of young and mature MFIs against financial sustainability taking the new age dummy as the referral category.

against poor cost–efficiency (CPB is highest for new MFIs – see tables 4.7, 4.8 and 4.9) thereby explaining poor financial sustainability levels for new MFIs. As emphasised by Lafourcade et al. (2006), financially un-sustainable MFIs tend to be affected by high CPB, signalling their cost inefficiency. The descriptive statistics in tables 4.7, 4.8 and 4.9 shows CPB for new, young and mature MFIs as \$438.18, \$212.27 and \$17.58 respectively – indicating poor cost efficiency for new MFIs.

Table 4.16: Robust Random Effects Models

Fin_sus (dependent variable)	Model 1	Robust standard errors	Model 2	Robust standard errors
Mature	-.1199221*	.0633198	.0491535	.0633198
Young			.1690756*	.08885091
New	-.1690756*	.0885091		
Donations	-.1263651***	.0493657	-.1263651***	.0493657
Equity	.005693***	.0016329	.005693***	.0016329
Borrowings	-.0263584	.0211119	-.0263584	.0211119
Deposits	-.0003452	.000378	-.0003452	.000378
Cost per borrower	-.0003022**	.0001247	-.0003022**	.0001247
Bank	-.0434327	.1375138	-.0434327	.1375138
For_profit	.0107373	.1270371	.0107373	.1270371
log_assets	.041638	.058389	.041638	.058389
log_NOAB	-.1071139**	.0422179	-.1071139**	.0422179
Log_GLP	.0651479	.0536785	.0651479	.0536785
Regulated	-.736845	.09766442	-.736845	.09766442
Portfolio at risk	-.0011904	.0010227	-.0011904	.0010227
Real yield	.2958665***	.1082833	.2958665***	.1082833
Constant	-.2340283	.4599409	-.2340283	.4599409

*** 1% significance; ** 5% significance; *10% significance

Source: Author's Computation

These results also echo the role of the scale of lending (GLP and NOAB) on financial sustainability. Regarding mature MFIs, Table 4.6 notes that mature MFIs are hugely financed by deposits. Further tracing of mature MFIs shows that they have the highest GLP and NOAB (see

tables 4.7, 4.8 and 4.9). However, the difference in the GLP and the NOAB from new to mature MFIs is insignificant, implying that the scale pursued by mature MFIs is suppressed.⁸³ By implication, the interest income for mature MFIs does not vary very much from that of new and young MFIs. However, the loan quality is low for mature MFIs as their PAR is the highest amongst the three LCT age phases. Tables 4.7, 4.8 and 4.9 show that PAR stands at 14.8%, 20% and 25% for new, young and mature MFIs respectively. The meaning thereof is that whilst mature MFIs might have a relative scale edge over new and young MFIs, the high PAR hinders their chances of financial sustainability.

Whilst the panel regression results show that young MFIs are more financially sustainable, the only distinct feature attached to them is that they significantly use borrowings in financing their operations. Surprisingly, the GLP and NOAB for young MFIs are almost the same as those for mature MFIs. The GLP for young MFIs has a 3.5% difference whilst NOAB has a 0.8% difference from that of mature MFIs (see tables 4.8 and 4.9). Whilst the scale of operation of young and mature MFIs is seemingly the same, the difference lies in a lower PAR for young MFIs. Young MFIs thus capitalise on maintaining a quality loan portfolio compared to that of mature MFIs, considering the seemingly ‘congruent’ GLP and NOAB. In contrast, whilst new MFIs tend to have a better PAR compared to that of young MFIs (14.8% versus 20%), their CPB (\$438.18 versus \$212.27) is much higher compared to that of young MFIs. This explains why young MFIs are superior regarding financial sustainability. Moreover, whilst Table 4.12 shows that new and mature MFIs are mostly NBFIs and SACCOS, respectively, there is no distinct MFI charter associated with the young MFI age category. Though insignificant; rural banks, banks and NGOs have a positive relationship with young MFIs. The implication of this finding is that financial sustainability is not defined by the MFI charter but rather what the MFI does in managing risk and costs.

Evidence for the agency theory by Coleman (2008) shows that the use of borrowings by MFIs augments their chances of financial sustainability. The rationale is that interest on borrowings is a fixed expense that ought to be paid by MFIs (whether they are sustainable or not). This forces

⁸³Average GLP for new, young and mature MFIs is 13.66, 14.58 and 15.09 million dollars respectively (see Table 4.12)

MFIs to be efficient and innovative by embracing appropriate risk management structures and improving the quality of their loan portfolio or risk bankruptcy. Young MFIs that are hugely financed by borrowings⁸⁴ rightfully prove the essence of the agency theory in partly explaining the financial sustainability of young MFIs.

These results concur with recent efficiency empirical work done on Tanzanian MFIs by Marwa and Aziakpono, (2016).⁸⁵ They observed an inverted U efficiency curve whereby small, medium and large MFIs co-serve the same market. However, the extreme ends of the scale of operation (small and large MFIs reminiscent of new and mature MFIs considering the LCT framework) have a counter effect on efficiency. Operational challenges inherent in small MFIs (new) and the inefficiencies of growing beyond the optimal scale typical of mature MFIs explain the inverted U efficiency curve. Poor MFI financial performance in Southern Africa is said to be evident in small and large MFIs alike (Lafourcade et al. 2006). Therefore, it is not the ‘learning from experience’ as espoused by the LCT (which accrues with age) that can explain the financial sustainability of MFIs in the SADC region.

Donations have a significant negative link with financial sustainability (panel regression and correlation analysis concur on this), confirming earlier studies by Sekabira (2013) and Bogan (2012). Correlation analysis shows that the GLP has a significant negative connection with donations, as substantiated by the low dollar values of donations used by new, young and mature MFIs (see tables 4.4, 4.5 and 4.6). New MFIs have an average of \$0.09 million of donations whilst young and mature MFIs got \$.017 and 0.18 million respectively. These values are the least per MFI age category when compared to other financing options (see tables 4.4, 4.5 and 4.6). Since donations have the least average when compared by other financing options, as shown in Table 5.1, they cannot substantially finance the GLP; neither can there be a meaningful expansion of lending activities supported by donations. Since it is the GLP that defines the level of revenues (interest income) that in turn covers the operational and financial costs of MFIs; donations, being a limited resource, thus cannot contribute much to the interest income of MFIs. Though no evidence can be extracted from the sample regarding the controls attached to

⁸⁴ Average usage of borrowings by new, young and mature MFIs is 0.25, 0.47 and 0.18 million dollars respectively.

⁸⁵ Tanzanian MFIs are part of the sample used in this study thus the findings got a bearing on the trends observed in this study.

donations, theory notes that donors prescribe how MFIs must use their donations (most likely to be socially oriented), which might not be in agreement with financial sustainability. Also, though un-supported by the sample evidence, donations tend to be deployed towards product design and microfinance capacitating initiatives hence, donations may not be used for loaning (de Aghion & Murdoch 2005). In this case, there is no direct contribution of donations to financial sustainability. Internal commercial financing, namely equity being of low cost to MFIs is positively related to financial sustainability (Kinde 2012).

MFI cost–efficiency proxied by CPB showed a significant and negative effect on financial sustainability, implying that cost–efficiency supports financial sustainability. The summary statistics show that the average CPB for the sample is higher than the global average assumed in an earlier study by Bogan (2012) (see Table 5.2). It becomes apparent that if the CPB is high for the assumed sample, having many borrowers would multiply the total cost of serving the borrowers. This explains why NOAB has a significant negative effect on financial sustainability. Lafoucade et al. (2006) and Karim et al. (2011) concur on the effect of poor infrastructure on the operational costs of MFIs in southern Africa. Real yields (RY) have a significant positive effect on financial sustainability. The charging of higher interest rates signifies more interest revenue for MFIs that can be used to cover both operational and financial costs (Khandker 1996). Though some SADC countries have laws stipulating ceilings on interest rates for MFI loans, it remains an area that affects the financial sustainability of MFIs.

4.5 Chapter summary

This chapter focused on the essence of the LCT in explaining financial sustainability. Using selected SADC MFIs, panel regression methods adjusted for various robustness checks show that MFIs do not follow the growth trend suggested by the LCT. Rather, a new trend is observed whereby start-up (new) and mature MFIs are financially unsustainable compared to young MFIs. Sample evidence shows that scale, cost–efficiency and risk management tend to be better for young MFIs compared to the other two extremes. Recent evidence by Marwa and Aziakpono (2016) show that, small and big MFIs tend to be in-efficient pointing to their unsustainability. In the same realm, Rosenberg (2009:10) writes that:

Trees do not grow to the sky. The fact that an MFI's sustainability indicator improves over a period of years does not necessarily mean that the MFI will reach financial sustainability. Sustainability indicators for MFIs will usually improve in the early years as prior year investments start to produce income, but many of these MFIs never become fully sustainable, and thus can never expand beyond the limits of scarce subsidized funding.

MFIs age, same as charter therefore does not define the financial sustainability of an institution, but rather the ability of the MFI to manage default risk and control operational cost.

The chapter also noted the supportive role of equity in ascertaining financial sustainability given the low costs attached to it as well as its positive link with the GLP. Donations being a limited resource for most MFIs limits growth of the loan portfolio hence the negative effect on financial sustainability. Cost efficiency as measured by the CPB remains high explaining its restraining effect on financial sustainability. Given the high CPB, having many active borrowers (NOAB) further limits financial sustainability. However, raising lending rates augments financial sustainability.

The next chapter addresses the relationship between MFI financing options and the level of financial sustainability given the selected SADC MFIs, making use of binary output models.

CHAPTER 5

FINANCING STRUCTURE AND FINANCIAL SUSTAINABILITY OF SELECTED SOUTHERN AFRICA DEVELOPMENT COMMUNITY MICROFINANCE INSTITUTIONS ⁸⁶

5.1 Introduction

The role of microfinance in poverty alleviation cannot be over-emphasized given a multiplicity of studies cementing the position microfinance occupies in improving the livelihood of the poor (Iezza 2010; Khawari 2004; Awaworyi & Marr 2014; Ayayi & Sene 2010). The poverty alleviation role of microfinance is hinged on the assumption that, MFIs exist ‘eternally’ (financially sustainable) hence can register a consistent dent on poverty. Financially sustainable MFIs are large, stable, and innovative and can support extensive outreach at low cost (Quayes 2012; Morduch & Hale 2002; Paul 2010; Hermes et al. 2009). However, MFIs must be adequately capitalised to attain financial sustainability. According to Sekabira (2013:86), “sustainability of MFIs based on their capital structure ensures sustainability in poverty reduction and improved food security.” In the same vein Kapper (2007) emphasised that the high prevalence of financial exclusion is caused by lack of strong financial intermediation based on sound financing. Intuitively, arresting poverty requires financially sustainable MFIs which are in turn backed by proper financing methodologies.

Literature acknowledges the transformation in the manner MFIs are financed. Johnson (2015) noted the growing tendency by MFIs to commercially–finance their operations. Policy makers and institutionalists⁸⁷ have endorsed the commercialisation of MFI financing despite the ‘schism’ on the exploits of donations in financing MFIs. Whilst welfarists⁸⁸ are concerned that commercialisation triggers mission drift, using non-subsidised funds and ‘...leveraging MFI

⁸⁶ A research paper based on this chapter titled ‘Financing Structure and Financial Sustainability of Selected SADC Microfinance Institutions’ was presented at the 2015 Global Development Finance Conference, 29 – 30 October in Cape Town, South Africa. The paper will be published in the upcoming Issue of the Annals of Public and Cooperative Economics.

⁸⁷ Advocates of the financial mission of microfinance which values financial sustainability as a ‘means’ to serve the poor

⁸⁸ Microfinance practitioners bend on the social mission of reaching the primarily the ‘core’ poor

assets' as well as MFIs operating banks has become trendy (Johnson 2015). MFIs have become more profit oriented thereby adopting debt and deposit financing whilst shunning concessionary priced funds. Earlier sentiments by Murdoch (2000:620) stating that "...financial sustainability will give programs access to commercial financial markets" and that, "subsidized programs are inefficient and thus bound to fail" in a way re-defined MFI financing.

Recent studies bear witness of MFIs' financing structure having gradually taken a shift – mimicking that of commercial banks⁸⁹ (Karim et al. 2011; Bogan 2012; Johnson 2015). Yaron and Manos (2007:4) reiterate that

...many of the newly emerging MFIs adopt a more economically-oriented approach that includes sourcing finance by making and retaining earnings, attracting deposits, increasingly borrowing from commercial sources at market rates, and tightening loan recovery procedures to minimise bad debt.

According to Lafourcade et al. (2006:123), "The future of microfinance as a commercial industry has become the dominant strand of thought behind several international development organizations." This has seen a growing drift towards commercial microfinance in respect of financing and pricing of products. What then explains the motive to commercialise?

The ballooning demand for microfinance in excess of \$300 billion (Paul 2010) has led MFIs to 'invent' ways of expanding their financing sources by embracing commercial financing. The rationale is that commercial financing 'pressures' MFIs to be efficient, limit costs and record a profit for them to survive, that is, financial sustainability (Johnson 2015). The Industry Perspective⁹⁰ has seen even NGOs adopting commercial financing methods and pursuing financial sustainability (Campion & White 1999).

Against this background, extensive failure⁹¹ of MFIs in SADC prompted proposals of structuring financial rescue packages for ailing MFIs (Karim et al. 2011). The deficiency in the recommendation is the failure to name the financing structure capable of proffering financial

⁸⁹ This does not imply that donations are no longer part of MFIs' financing structure, but their proportions are gradually going down over time, with commercial sources taking dominance.

⁹⁰ a notion which explains the deliberate will to transform the financing structure and the business models

⁹¹ Failure is equated to financial un-sustainability

sustainability. Assuming the commercialisation trend, investigating the ideal financing structure that can proffer financial sustainability⁹² is un-avoidable given the need to ascertain a persistent reach out to the poor. Sparse evidence on the subject fired up the effort to delineate the relationship between financing structure and financial sustainability of MFIs. Recent studies focused on how either capital structure or financial sustainability relate to MFI performance as well as determinants and implications of financial sustainability (Kumar 2012; Kimando 2012; Hartarska & Nadolnyak 2007; Kipesha & Xianzhi 2013; Ek 2011; Kyereboah-Coleman 2007; Janda & Turbat 2013; Ayayi & Sene 2010). Though Sekabira (2013) and Bogan (2012) attended to capital structure and financial sustainability of MFIs, their actual results differ acknowledging a contention in the evidence⁹³.

This study takes a SADC perspective on the basis that the region is a host to multiple MFI challenges including financial un-sustainability, financing challenges as well as being amongst the poorest regions in the world (Karim et al. 2011; Johnson 2014; ICWS⁹⁴ 2014). This study is also motivated by the realisation that “the exact nature of trade-offs in microfinance differs across regions, but meaningful trade-offs need to be recognized and weighed everywhere” (Cull et al. (2009:19). Zooming on the relationship with the intent of informing MFI financing to ascertain both financial sustainability and in turn, outreach to the poor is a worthy cause. Given the commercialisation trend; this chapter tests if the supposition that commercial financing options support financial sustainability holds. Structurally, the next section covers literature review whilst section 5.3 addresses stylized facts on SADC microfinance sector. The sample, data and econometric estimations are captured in section 5.4 whilst section 5.5 and 5.6 presents the empirical results and the chapter summary.

⁹² FS – “the lender’s capacity to operate for a considerable period of time, measured in decades, independent of subsidy or altruistic support.” See Von Pische (1996).

⁹³ Share capital was found to be additive to financial sustainability (Sekabira, 2013) whilst Bogan, (2012) recorded a negative link between donations and financial sustainability. Noteworthy is that, both studies condoned the use of grants in funding MFIs.

⁹⁴ International Council of Social Welfare – more than half of the population in SADC live on less than a dollar per day.

5.2 Literature review

5.2.1 Funding theories

Whilst the Modigliani and Miller (M&M) capital structure theory is popular in corporate finance, its relevance given the unique nature of microfinance is unconfirmed. The traditional firm assumed by the M&M theory is at variance with lending institutions which are capable of attracting deposits thus the theory require adjustments for it to suit lending institutions guided by the double bottom lines⁹⁵ (Cohen 2003).

One relevant theory is the agency theory. It hints on the role of debt in aligning management's performance to that of the owners. Kar (2012) confirmed that debt usage by MFIs increase profitability measures and improves cost efficiency. The theory asserts that higher leverage is a useful governance mechanism which helps reduce wasteful cash flow by a threat of liquidation. This may also lead to increased pressure on management's part to generate enough cash flow to service debt obligations. However, agency costs of monitoring management activities lessen the gains. Agency costs may be large in the microfinance industry as MFIs are by their very nature informationally opaque (Hudon & Tarca 2011).

Recent studies (Hoque et al. 2011; Kapper 2007; Sekabira 2013 & Bogan 2012) related capital structure of MFIs to the LCT. The LCT notes the age-related movement from subsidised capital to commercial funding (especially for NGOs). Profit-oriented, small MFIs (having little capital and operating on a shoestring budget) with limited access to broader financing mechanisms graduate over time to levels where they can attract savings and have better access to debt and equity markets. The cost of capital and restraints attached to some sources of capital limit the sources of funding available for MFIs at each growth phase (Kapper 2007). However, evidence on the theory as presented in chapter 4 do not support the LCT as MFIs seem not to ascribe to the transition suggested by the LCT.

The Profit Incentive Theory (PIT) ascribes to the use of commercialised funding methods at any stage of MFI growth to further the microfinance promise⁹⁶. Commercial funding is assumed to

⁹⁵ The social mission (serving the poor) and the financial mission (being financially sustainable)

⁹⁶ Reach out to the poor (see Morduch et al. 1999)

advance the profit motive, is not limited to insufficient donor funds thus can meet the surging demand for microfinance (Bogan 2012). However, the trade-off theory (Myers 1984) states that, debt must be used conservatively since the costs of using it may surpass firm-value gains it brings with it. Firms thus can borrow up to a point where the marginal tax shield benefits on additional debt is offset by the increase in the present value of possible costs of financial distress.⁹⁷ Beyond that, debt usage reverses firm value.

5.2.2 MFI funding

Cull et al. (2009) and Hermes and Lensink (2011) resolved that technology, the degree of MFI commercialisation, extent of regulation (financial liberalisation) and competition play an important role in defining MFI funding. Regional factors such as financial development, saving and lending culture also label MFI funding patterns (Fehr & Hishigsuren 2006; Banerjee et al. 2003). Funding of MFIs has remained in contest given fears of mission drift⁹⁸ thus MFIs have to weigh outreach and financial independence options in attracting adequate funding. The various funding options available for MFIs, the associated benefits and shortcomings noting the variant MFI motives are presented below.

5.2.2.1 Deposits/savings

In microfinance deposits are tiny savings done by the poor. Meeting regulatory requirements before deposits can be attracted – a cost to MFIs partly explain why deposits are least popular with MFIs across the world (Tehulu 2013; Cull et al. 2011). However, the effect of regulation on deposit attraction remain in controversy since evidence points to either directions (Fehr & Hishigsuren 2006). Though Kapper (2007), Bredbeg and Ek (2011) and Ek (2011) acknowledge that deposits are stable and can fund MFIs over a long period, thereby ensuring sustainability and solid growth. It is still a reality that not all MFIs are allowed to attract deposits. Legislation in most countries outlaw the attraction of savings by MFIs. This limits the financing options of MFIs to equity and debt (considering that donations might be limited).

⁹⁷ Costs of bankruptcy (reorganization) and agency costs that arise when the firm's creditworthiness is in doubt

⁹⁸ Failure to serve the poor by MFIs as they seek profits and financial sustainability

Deposits require the hiring of expensive technical experts so as to set up payment systems, system upgrades and ensuring information and data security. Legal costs too are high given the need to satisfy compliance and aligning with regulatory changes and interpretation of statutes. Reporting requirements to meet supervisory standards present itself as a cost to MFIs as MFIs might out-source accounting specialists. The aspect of meeting capital reserves is a tax on MFIs thus business models might change towards lumpier loans signalling mission drift (Cull et al. 2009). Against these costs, attracting the rightful level of deposits takes a lot of time thereby suppressing the ultimate effect of deposits on financial sustainability (Mwangi et al. 2015).

5.2.2.2 Debt

According to CGAP (2004) debt is mainly supplied by private investors who can be non-commercial investors, commercial banks and other multilateral organisations. Debt can be from local and foreign banks. Governments may own debt in MFIs or invest in Microfinance Investment Vehicles (MIVs) through International Finance Institutions (IFIs) (Kapper 2007). IFIs allow private investors keen on returns to invest in microfinance. However, debt comes with the obligation of servicing it. Debt servicing must be done whether MFI operations are profitable or not. The agency theory is mainly framed on the usage of debt in spurring MFI efficiency in the deployment of resources and ensuring financial sustainability. Debt remains expensive in most African markets (Tehulu 2013) given financial under-development, illiquid markets and the information opaqueness of the microfinance sector in most countries.

5.2.2.3 Equity

Equity relieves MFIs from making contractual periodical payments unlike where debt is used. Equity financing is provided by owners (for profit-motivated MFIs) or by national and international donor organisations and development banks (NGOs). Retained earnings formulate part of cheap equity capital compared to share issue. Costs linked to equity include dividends (though no legal statutes oblige dividend payment – Tehulu 2013) and administrative costs (floatation costs) of raising capital through stock markets (Kapper 2007). However, equity has remained a scarce resource mainly because few MFIs are listed with stock exchanges. There are few instances where MFIs listed successfully on stock exchanges especially in Latin America. In

most regions, MFIs resort to either debt or attraction of deposits to expand their operations as investors shun holding shares in institutions lending to the poor and women (Cull et al. 2009b).

5.2.2.4 Donations

Though less preferred by institutionalists, donations remain popular with new⁹⁹ MFIs. Despite the fact that donations come at concessionary rates, they still have strings attached as donors require that MFIs meet set conditions prior the extension of donations. Although good for start-up MFIs (de Aghion & Morduch 2005), they are condemned for limiting the growth of MFIs as they are linked to in-efficiency, un-sustainability, corruption, abuse and reduced scale of operation (Kapper 2007; Yaron & Manos 2007). This explains the marked move to commercialise MFI funding even for NGOs through the industry perspective paradigm (Campion & White 1999). To circumvent the weaknesses attached to donations; smart subsidies¹⁰⁰ have been suggested though the major limitation has been the proper methodology of quantifying such as well as knowing the rightful time to stop providing subsidies (de Aghion & Morduch 2005).

5.2.3 Financial sustainability

An analysis of unsuccessful rural credit programmes in developing countries at Ohio State University concluded that “...(1) institutional sustainability was key to successful provision of financial services to the poor and (2) financial self-sufficiency was a necessary condition for institutional sustainability” (Brau & Woller 2004:6). Borbora et al. (2007) noted that though sustainability can be considered at various degrees, financial sustainability has earned researchers’ interest given its relevancy in poverty alleviation. Financial sustainability states that MFIs must be able to cover their operating and financial costs using operating revenue (Morduch 1999). Khawari (2004:7) notes that “sustainability is permanence” implying that financially sustainable MFIs are able to exist indefinitely and serve the poor hence an endless fight against poverty (Paul 2010). Financially sustainable MFIs are also innovative thus device new business

⁹⁹ MFIs with an age range of 0 – 4 years (de Sousa-Shields et al., 2004)

¹⁰⁰ Provision of subsidies only and up to when an MFI become financially sustainable

models meant to limit information asymmetry, moral hazard and adverse selection. This allows the poor to enjoy financial services provided by MFIs continuously.

The dictates of financial sustainability acknowledge the competent use of financial resources as a fore-runner for sufficiency which is non-existent in subsidised microfinance (Quayes 2012). This augments Rhyne and Otero (2006) who discourage the use of altruistic support if MFIs are to be financially sustainable. Given donor fatigue and inconsistency of donors in funding development (Ayayi & Sene 2010), there is a notable surge in commercialisation¹⁰¹ of microfinance. Commercialisation has been applauded for ensuring financial sustainability and opening up broader financing opportunities for MFIs (Sekabira 2013). Quayes (2012) giving the instance of Latin American MFIs acknowledges the significant progress made by NGOs in moving away from subsidy dependency into profitable institutions. Deposit attraction plus debt usage has been increasing, with a notable decrease in use of grants and soft loans evidencing the evolution of MFI financing in pursuit of financial sustainability (Hoque et al. 2011).

One key element of financial sustainability is the charging of market interest rates on loans which allow for the recovery of administrative and operational costs. Khandker (1996) notes that financial sustainability can only be attained where interest charged per unit of principal on loans exceeds the associated costs of raising the principal. For as long the lending rates are above the operational costs, the MFI is viable. The art of disbursing loans and loan recovery adds to financial sustainability. Disbursing of loans must limit administration costs (loan size matters) whilst the recovery of loans must also limit losses and add to the financial sustainability of an MFI (Khandker 1996).

5.2.4 MFI financing and financial sustainability

Kinde (2012:1212) writes that “...various sources of capital could affect profitability, hence sustainability of MFIs” – implying existence of a relationship between financing and financial sustainability. However, the relationship between MFI financing and financial sustainability remains under-studied and largely un-explored hence the sparse evidence. Studies referred to in

¹⁰¹ Movement from subsidized to market oriented microfinance

this section were not strictly meant to interrogate the relationship but their findings gave indications of the perceived relationship between financing and financial sustainability of MFIs.

Kar (2012) sought to know the effect of capital on the performance of MFIs considering the agency theory. GMM and IV methods indicated that increase in debt usage increase profitability for MFIs. MFIs' cost–efficiency responded to leverage positively. The study made use of ROE, ROA, OSS and FSS as performance measures. Ayayi and Sene (2010) undertook a study to identify the drivers of MFI financial sustainability. The study did not settle for capital structure as a determinant but noted the role of interest rates and portfolio quality. The study recommended the adoption of commercial banking practices, appropriate management and governance.

Sekabira (2013) studied the link between capital structure and performance of MFIs in Uganda. Debt and grants recorded a negative association with both OSS and FSS. However, only debt and equity had a significant influence on FSS hence the recommendation that MFIs must consider equity capital and not debt and grants for them to attain FSS. A related study by Kyereboah-Coleman (2007) noted that MFIs were highly leveraged. Such MFIs are thought to further outreach, capitalize on economies of scale and reduce moral hazard and adverse selection. Ek (2011) on implications of FSS writes that profit–oriented MFIs are more efficient as they can harness technology and employ novel lending methods. Profit–motivated MFIs are capable of attaining financial sustainability – growing into large institutions that can reach out to more clients and disburse bigger loans even to female borrowers.

Kipesha and Xianzhi (2013) looked at the relationship between sustainability, profitability and outreach. Outreach had a positive link with sustainability and profitability hence recommended the emulation of financial sustainability and lowering the use of grants. Hartarska and Nadolnyak (2007) in a study meant to find out if regulated MFIs had better sustainability and outreach found out that regulation had no effect on FSS and OSS. Rather, low leverage spurred sustainability. Kinde (2012) focused on the financial sustainability of Ethiopian MFIs and found out that capital structure had no effect on FSS. Outreach depth and breadth, dependency ratio and cost per borrower were noteworthy in determining FSS. Kimando (2012) also found out that capital

structure had no effect on FSS in a study which focused on Nigeria. However, Iezza (2010) confirmed the importance of capital in explaining FSS though he singled out savings as the significant variable. Other significant variables were portfolio at risk, yield on gross portfolio, interest rates and inflation. Bogan (2012) on changes in capital structure and financial sustainability noticed the negative relationship between grants and OSS. Assets had a positive link with FSS whilst debt recorded a negative link with FSS.

Though inconclusive, the evidence cited shows that there is a link between financial structure and financial sustainability. Variant study focus areas explain variant results. This goes in line with Cull et al. (2009:19) who noted that ‘the exact nature of trade-offs in microfinance differs across regions, but meaningful trade-offs need to be recognised and weighed everywhere.’ In line with this thinking, refocusing on how commercialised MFI financing relates to financial sustainability in SADC with the intent of fighting poverty through properly financed and sustainable MFIs is a worthy cause.

5.3 Stylised facts: SADC microfinance sector

Microfinance in SADC comprises an assortment of MFIs which are geographically spread with the intention of serving the poor (Lafourcade et al. 2006). Commercial microfinance has trended in the region as evidenced by the souring of profit-oriented NGOs serving salaried clients. MFIs lend to small enterprises too though to a limited extent. Evidence show that microfinance is a growing sector with respect to clients served and volume of loans and deposits attracted. MFIs do provide loans, payment services, insurance and consultancy amongst the broadening products and services offered by microfinance. Competition has also re-defined the microfinance sector as large players in the name of commercial banks down-scale in search of new business and new clients. Interestingly, deposits exceed the total loan book of the MFIs explaining the role of commercial banks, SACCOS and new regulated MFIs in attracting savings (Karim et al. 2011). Financing challenges which limit the scope of operations of many SADC MFIs have led them to consider savings as an alternative financing methodology given the recent statutory provisions allowing MFIs to collect deposits (Karim et al. 2014). Whilst there is a number of hybrid MFIs

operational in SADC, this section presents the most common forms of MFIs, namely commercial banks, NBFIs, SACCOS as well as NGOs.

5.3.1 Popular MFI charters in Southern Africa Development Community

5.3.1.1 Commercial banks

Karim et al. (2011) noted that commercial banks have become a dominant part of the microfinance sector in SADC notably in South Africa, Zimbabwe, Angola, DRC, Mozambique, Tanzania and Malawi. According to CGAP (2010) commercial banks account for 81% and 83% of Southern African total borrowers and savers respectively. Their services include loaning to salaried low income earners with some banks extending even unsecured loans under group loaning schemes. However, there are microfinance inclined banks in Angola, Mozambique and DRC which particularly serve the poor as the origins of such banks trace back to MFI roots.

5.3.1.2 Non-bank financial institutions

These profit-oriented institutions have been on the increase in SADC and are mostly salary based and operate on commercial basis. The proliferation of these MFIs is linked to commercialisation where microfinance is pursued with a commercial mind of earning profits (Kapper 2007). Countries like Zambia, Zimbabwe, Angola, Botswana and Tanzania have seen the increase of such MFIs especially in urban and peri-urban areas. Most profit motivated MFIs institute either group or individual lending methods. Though loans granted are thought to be meant for SME investment (given the lumpier loan size), most of such loans are meant for consumption as well as enabling clients to either access education or health facilities. Worth noting is that NBFIs are now the major microfinance players in small economies such as Swaziland, Lesotho and Namibia (Karim et al. 2011). Former NGOs in countries like Zambia (FINCA) and DRC (FINCA and CETZAM) have turned into NBFIs as a way of broadening their financing base as they pursue profits in executing microfinance.

5.3.1.3 Savings and credit co-operatives

SACCOS are most visible in DRC, Tanzania, Lesotho, Malawi, Swaziland and Mauritius. Despite the volumes of deposits attracted by SACCOS, it still remains difficult to quantify their

activities as they normally do not report to the regulatory authorities. This has affected efforts meant to regulate SACCOS. Regulation of SACCOS remains in contention though deposit-attraction normally calls for the protection of depositors. Small countries such as Swaziland and Mauritius are mostly served by SACCOS. These institutions remain vital in extending financial services as they allow the very poor to save and access funds (Lafourcade et al. 2006). Tanzania tops the region with such institutions serving nearly a million individuals (Karim et al. 2011).

5.3.1.4 Non-governmental organisations

These institutions pursue more of rural finance as they are socially oriented. These institutions are either locally or internationally controlled. The scope of outreach of NGOs is poor in SADC compared to other African regions. However, Tanzania records the highest number of NGOs active in deepening outreach. Such institutions choose to remain NGOs thus do not consider transforming into NBFIs owing to prohibitive regulations. South Africa also has big NGOs in the name of Small Enterprise Foundation (SEF) and Marang Financial Services. However, their significance in South Africa is limited given the size of the economy and big microfinance-inclined commercial banks. Mozambique also accounts for surmountable NGO presence in the region mainly because of the need to address social imbalances created by the 15 year long civil war and humanitarian issues covering health, education and policy support. NGOs are plausible for maintaining their coverage on the poor and female clients (Karim et al. 2011).

5.3.2 Financing microfinance institutions

Financing structure for MFIs in SADC mimics that of commercial banks. It includes deposits, equity and retained earnings as well as wholesale priced funds from wholesale markets. International donor societies, philanthropic individuals and public donations also provide funding to NGOs. Figure 2.12 shows the global distribution of MFI financing options. Though the distribution does not distinctively identify SADC, Lafourcade et al. (2006) noted that the financing structure for MFIs does not vary much in Africa. The indication thereof is that savings or deposits play an important role in the financing of microfinance activities in SADC. This is explained by a marked increase in regulated MFIs which are capable of attracting deposits same as the existence of many SACCOS and commercial banks (Lafourcade et al. 2006). Attraction

of deposits by MFIs has forced regulatory authorities to compel MFIs to seek deposit taking licenses to protect the public. However, financing remains a challenge for SADC MFIs (Karim et al. 2011).

Of importance is that, equity financing is limited as there is no MFI on record so far for listing on any stock exchange in the SADC region. The exception is that of commercial banks which are down-scaling but were already listed on stock exchanges. All the same, commercial banks still have more of deposits compared to equity given the nature of their business. As noted by Karim et al. (2011) that most SADC MFIs are not financially sustainable, it in turn limits them from accessing debt capital. Debt financing, though unpopular with SADC MFIs owing to the high cost of debt, it remains a scarce financing option too.

5.3.3 Financial sustainability

Making use of return on assets (ROA) as a measure of the ability of an MFI to earn positive returns given the expenses it incurs, Lafourcade et al. (2006) shows that SADC MFIs always attain negative returns. Poor profitability characterises both small and large MFIs. The regional ROA average for SADC ranges from 0 – 2% signalling their unprofitability. The MENA, Latin America and the Asian regions averaged a ROA of 5%, 7% and 10% respectively. Soaring financial and provisioning for losses weigh down the operational self-sufficiency measure of SADC MFIs. Mostly the rural areas have low population densities and poor infrastructure which magnifies the costs that MFIs face. Innovation such as use of technology in extending microfinance products and services (mobile banking) and improved communication could lessen such costs to some extent (Lafourcade et al. 2006).

Worth noting is that profitability varies with MFI type. Regulated MFIs record the highest average ROA whilst SACCOS report the least average ROA. That also translates into the OSS measures which are again high for regulated MFIs compared to SACCOS. Interestingly, unregulated MFIs generate the highest revenues and still incur the most expenses when compared with other MFIs.

5.4 Methodology

5.4.1 Data and sample

The study aligns with the commercialisation trend in MFI financing as noted by Cull et al. (2009:7) that

...a rough estimate of classification of the extent to which MFIs in the sample are profit-oriented is based on their sources of funding. We hypothesize that greater reliance on commercial sources of funding than non-commercial sources would lead an MFI to be more profit-oriented.

Being profit oriented is an indication of an MFI adopting commercialization.¹⁰² However, MFIs that are hugely commercially financed still have low subsidies¹⁰³ in their financing structure. This substantiates claims by de Aghion and Morduch (2005) that ‘smart subsidies’ can still finance either fully commercialised or financially sustainable MFIs. The study also considers MFIs operating under the NGO charter whose financing structure is now hugely commercialised and is mostly profitable indicating their commercialisation alignment (Quayes 2012).

MIX reporting MFIs are assumed in this study. Though MIX data has a self-selection bias, it remains one publicly available and reliable source of microfinance data given that a multiplicity of studies relies on the same. The data accessed stretched from 1997-2013 though marred by reporting in-consistencies. Given the need to maximise data points – sampling resorted to the selection of a period with adequate MFI reporting incidence. The period 2005–2010 recorded a favourable MFI reporting case thus was selected for the study. Subscribing to the MIX allowed for premium access to MFIs’ financial statements. The selection criteria yielded 60 MFIs. A full description of the population and the sample is provided in Table 4.1 and Table 4.2 in Chapter 4.

¹⁰² Microfinance literature equates the seeking of profits by MFIs to commercialization. Social mission oriented MFIs naturally do not seek profits but endure to serve the poor.

¹⁰³ In this study, subsidies are interpreted to mean donations or grants hence are interchanged.

5.4.2 Descriptive statistics and expected results

A summary of the financing structure for the selected MFIs is provided in table 5.1. Given that 85% of MFIs in the sample attracts deposits; deposits are the most popular MFI funding source averaging \$12.22 million. Karim et al. (2011) noted that SADC countries have adopted regulatory provisioning for deposit attraction by MFIs augmenting Lafourcade et al. (2006) assertion that African MFIs attract deposits better than any other region in the world. The pecking order of popularity descends to equity, borrowings then donations. Deductively, donations are losing their central role as a financing option for MFIs signaling donor fatigue (Ayayi & Sene 2010).¹⁰⁴ Equity is dominant in MFI funding since it is cheap (no law oblige MFIs to pay dividends – Kinde 2012). Obligatory costs attached to debt (borrowings) in under-developed debt markets¹⁰⁵ in the SADC region deter MFIs from using borrowed funds (Hoque et al. 2011). Literature has shown that debt is popular with mature and financially sustainable MFIs; thus, un-sustainable MFIs which characterize SADC (Karim et al. 2011) may not qualify for debt usage as they imply default risk to debt providers.

Table 5.1: Summary of financing structure for selected SADC MFIs (\$ millions)¹⁰⁶

Variable		Mean	Std. Dev.	Min	Max
Donations	overall	.1577544	.4484714	0	3.457585
	between		.447987	0	3.164154
	within		.2460847	.8694859	2.071878
Equity	overall	2.293726	14.24901	-.0751762	115.36
	between		14.11649	.0569022	109.7459
	within		.6548189	-3.757032	7.907828
Borrowings	overall	.2572403	.7152924	0	8.364898
	between		.5788359	0	4.439104
	within		.4842642	0	4.183035
Deposits	overall	12.22152	101.839	0	879.2895
	between		90.17232	0	698.684
	within		45.87403	0	192.8271

Source: Authors' compilation

¹⁰⁴ Though NGOs comprise 35% of the sample (the biggest proportion considering other charters), donations are the least popular financing method used implying a constrained outreach and scale of operation if other financing methods are not embraced.

¹⁰⁵ Reference is made to stylized facts presented in Chapter Two.

¹⁰⁶ Negative minimum values are an accounting principle which takes note of an MFI's perpetual losses which might deplete the equity or retained earnings.

Literature has shown that financial sustainability is attained where MFI efficiency is adhered to. The PAR, CPB and number of outstanding loans (NOLO) must be kept at a minimum (Kar 2012). Table 5.2 provides summary statistics of these variables based on the sample.

Table 5.2: Efficiency measures for selected SADC MFIs (see key below the table)

Variable		Mean	Std. Dev.	Min	Max
PAR	overall	10.51049	13.59192	-.0039	152.672
	between		17.23052	0	133.5563
	within		1.519882	-12.28384	20.62616
NOLO ¹⁰⁷	overall	30848.44	114234.2	14	1356770
	between		95098.29	599.6667	731111.5
	within		47092.1	-357576.1	656506.9
CPB	overall	237.6241	343.7253	.1018	2854.531
	between		364.29	.2709833	2322.177
	within		128.017	-882.6376	989.5264

Key: NOLO – number of loans outstanding i.e. loans which are due but remain outstanding.

Source: Author's compilation

To infuse meaning to these statistics, a comparison is made with global averages computed by Bogan (2012).¹⁰⁸ Bogan presented an average CPB of \$160 for a global sample implying that SADC MFIs are not efficient in lending as their average CPB is \$237,62. Cost-inefficiency (high CPB) lessens the returns from lending hence an MFI's chances of achieving financial sustainability is reduced. More resources would be channeled towards loan disbursement and monitoring thereby reducing the profitability of MFIs. NOLO, though not cited in most studies is alarmingly high averaging 30 848. This is a measure of loans which are likely to de-generate into non-performing loans thus limit financial sustainability. This partly explains the SADC average PAR which is double (10.51%) that of the global sample computed by Bogan (2012) which stands at approximately 5%. Therefore, SADC MFIs accrue more losses in their lending operations thereby taxing financial sustainability as provisions have to be made on such loan losses.

¹⁰⁷ No standard benchmark exists for this variable. However, it is supposed to be kept minimal as it represents loans that are due but outstanding. High NOLO increases the portfolio at risk thus paralyses financial sustainability.

¹⁰⁸ Bogan (2012) compiled a sample comprising large MFIs from across the world. Though SADC MFIs do not mimic the same scale of operation, this study refers to such for comparison's sake.

Theory on financial sustainability notes that an OSS¹⁰⁹ of 100% and above spells financial sustainability. However, CGAP¹¹⁰ guidelines have always tried to notch financial sustainability at an OSS of 110% (Bogan 2012). Noting the conventional way, only 52% of MFIs are financially sustainable whilst at 110%, only 36% of the MFIs are financially sustainable. This concurs with Karim et al. (2011) who stressed that SADC MFIs are mostly financially unsustainable. This explains the menacing poverty which characterises the region as MFIs continuously fail thus weakening the campaign against poverty.

5.4.3 Estimation technique

Binary outcome models come into the picture once the dependent variable is dichotomous, that is, the outcome can either be 0 or 1. If the probability p_i is assigned where the outcome is 1, then the associated probability for a 0 outcome is $1 - p_i$ (Fomby 2010). Fernando (2011) notes that considering a sample made up of N independent and equally distributed observations: $i = 1, \dots, N$, and a $(K + 1)$ vector X'_i of independent variables, the probability that the dependent variable (Y_i) takes a value of 1 is given by:

$$P(Y_i = 1|X_i) = F(X'_i \beta) = F(Z_i) \dots \dots \dots \text{Equation 5.1}$$

Where β stands in for the $(K + 1)$ vector of independent variables. The cumulative function F ensures a (0;1) outcome satisfying the condition that:

$$F(-\infty) = 0; F(+\infty) = 1 \dots \dots \dots \text{Equation 5.2}$$

The probability-generating function assumed in binary-outcome models assumes that, as X increases, $P_i = E(Y = 1|X_i)$ also increases but does not go outside the 0;1 boundary. Also, the assumption is that, there is no linear relationship between P_i and X_i (Vasisht 2012). The implication is that, as X_i gets less and less, P_i slowly approaches zero, the same happens when X_i is very large, P_i approaches 1 at a slow rate. The most popular means of modeling such instances is through logit and probit models (Gujarati 2004). These models are capable of assigning probabilities to instances where an MFI is financially sustainable, with 1 being the probability that an MFI is financially sustainable and 0, where the MFI is financially un-sustainable. The probability that an MFI is financially sustainable can be expressed as a function of a vector made

¹⁰⁹ Operational Self Sufficiency – a measure of how sustainable an MFI is
¹¹⁰ Consultative Group to Assist the Poor – a World Bank microfinance aligned policy research institution

up of financing variables, MFI-specific characteristics and macro-economic fundamentals. The possibility of being financially sustainable is estimated for each MFI given the set of explanatory variables as suggested by Greene (2002:456) that “Each observation is treated as a single draw from a Bernoulli distribution (binomial with one draw).”

Logit models map $P(Y = 1)$ by assuming a logistic function (F) capable of predicting that an event occurs or not by estimating a binary outcome (that is 0 or 1) given a mix of independent variables (Vasisht 2012). The logistic function assuming a number of explanatory variables is presented as follows:

$$P(Y = 1 | X_1, X_2, \dots, X_k) = \frac{1}{1 + \frac{1}{\exp(\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k)}} \dots \dots \dots \text{Equation 5.3}$$

Letting $Z_i = (\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k)$ and $P(Y = 1 | X_i) = P(Y = 1 | X_1, X_2, \dots, X_k)$ gives:

$$P(Y = 1 | X_i) = \frac{1}{1 + e^{-Z_i}} \text{ which can still be presented as } P_i = \frac{1}{1 + e^{-Z_i}} \dots \dots \dots \text{Equation 5.4}$$

This cumulative logistic function permits P_i to range between 0 and 1 as Z_i takes values from $-\infty$ to $+\infty$ whilst allowing for a non-linear association between P_i and Z_i . Taking P_i to be probability that an MFI is financially sustainable, $(1 - P_i)$ becomes the probability that an MFI is not financially sustainable given by:

$$1 - P_i = \frac{1}{1 + e^{Z_i}} \dots \dots \dots \text{Equation 5.5}$$

Taking $P_i / (1 - P_i)$ gives the odds ratio¹¹¹ in favor of financial sustainability.

Probit models make use of a normal cumulative distribution function (Φ) in mapping P_i . Taking notations from the logit model, the probit model thus can be expressed as follows:

$$P_i = \Phi(X' \beta) = \int_{-\infty}^{x' \beta} \frac{1}{\sqrt{2\pi}} \exp\left(-\frac{x^2}{2}\right) \dots \dots \dots \text{Equation 5.6}$$

Given the scale variance in the functions used to generate P_i (F and Φ), coefficients of logit and probit models are not usually interpreted (logistic distribution has flatter tails compared to that of

¹¹¹ Probability that an MFI is financially sustainable to the probability that an MFI is not financially sustainable

normal distribution function – Söderbom 2009). Normally the sign of the coefficient is interpreted in the Maximum Likelihood¹¹² framework; otherwise P_i has to be estimated by way of marginal effects.¹¹³ These can be estimated at means or as average marginal effects. Capitalising on the proficiency of STATA, marginal effects are easily generated making the interpretation of the results easier. Average marginal effects are assumed since ‘means’ convey a wrong meaning under 0 or 1 outcome scenarios. This is because where two extremes exist, that is, either an MFI is financially sustainable or not, no mid-point (mean) exist making average marginal effects sounder (Torres-reyna 2014). Econometric literature concurs on the uniformity of the estimation precision of logit and probit models making the choice between the two models a case of preference (where differences exist, they are insignificant) (Fernando 2011; Vasisht 2012). Probit model is assumed in this case.

Four different probit models are run to infuse robustness (i.e. standard probit, vce probit, cluster robust probit and random effects probit model¹¹⁴ - to accommodate for unobserved heterogeneity¹¹⁵). Interpretation is only for sound models as informed by the χ^2 and the associated probability which must be significant at 5% level. Average marginal effects are interpreted assuming the maximum likelihood method (Arellano & Hahn 2005). Percentage correctly classified is also estimated to reflect a model’s predictive power.¹¹⁶

5.4.4 Model specification

The following panel regression model is employed to capture the financing options, MFI characteristics and macro-economic fundamentals obtaining in the MFIs’ host countries which explain MFI financial sustainability.

$$\text{Financial Sustainability}_{it} = \beta_0 + \sum \beta_j X_{it} + \sum \beta_k Y_{it} + \sum \beta_i Z_{it} + \varepsilon_i \dots \dots \dots \text{Equation 5.7}$$

Where:

¹¹² The possibility of an MFI being financially sustainable on condition of a specific explanatory variable

¹¹³ They quantify the likelihood (probability - P_i) of an MFI being financially sustainable given a change in a specific explanatory variable

¹¹⁴ vce, random effects, cluster robust and random effects models are explained in chapter.

¹¹⁵ Note that fixed effects cannot be run for Probit models.

¹¹⁶ The higher the percentage, the better the model

2013; Tehulu 2013 and Kipesha and Xianzhi 2013) used OSS as a measure of financial sustainability. OSS is estimated as follows:

$$OSS = \frac{\text{Total Operating Revenue}}{\text{Expenses (Financial Expenses + Operational Costs + loss on loan expenses)}} \dots \dots \dots \text{Equation 5.9}$$

Operating revenue includes interest income from both current and past loans, interest from re-structured loans, interest from all investments, fares, service charges as well as penalties from late settlement of loans. Expenses include financial, operating and loan loss expenses (Cull et al. 2009). An OSS < 100% = un-sustainable; 100% < OSS < 110% = Operationally Sustainable and OSS > 110% = Financially Sustainable. Financial un-sustainability means an MFI cannot meet its operating costs thus is bound to fail unless it gets financial aid. Effectively, an OSS in excess of 100% defines an MFI's ability to meet its operating costs. Besides operational costs, an MFI has to meet financial costs of capital resources it uses. An OSS of at least 110% defines an MFI's ability to meet both operating and financial costs (Bogan 2012).¹¹⁷

Funding options (equity, borrowings, donations and deposits) are scaled against assets to manage the huge variability in the actual dollar amounts of various capital sources. According to the LCT, MFIs are thought to be financially sustainable when they are 'mature'. This is because, management learn through experience gained across time thus are expected to sharpen the business model, widen financing options and reduce risk. In this realm, 'new' MFIs are expected to be financially un-sustainable (Kapper 2007; Bogan 2012). The young LCT phase is omitted to cater for the n - 1 degrees of freedom rule.¹¹⁸ Regulation of MFIs entails that the operations of an MFI are under either a formal banking regulatory authority or a financial services board. Cull et al. (2009) notes that regulation increases costs for MFIs thus to stay alive, regulated MFIs improve their loan quality same as efficiency hence are expected to be financially sustainable. Karim et al. (2011) notes that in SADC, most countries ask MFIs (both credit only and deposit attracting MFIs) to pledge minimum capital provisions. This regulation thus is a cost to all MFIs as it reduces resources that can finance operations. Worth noting is that, deposit attraction is

¹¹⁷ For comparability with other studies, we use a threshold of 110%

¹¹⁸ Note that the LCT has 3 phases, hence only 2 can included in the analysis based on the n-1 degrees of freedom rule

expected to enhance financial sustainability due to the low cost attached to deposits (Iezza & La Cour 2010; Lafourcade et al. 2006).¹¹⁹

The CPB and the PAR if kept minimal increases the chances of an MFI to be financially sustainable (Kumar 2012). As noted in literature, interest rates on loans determine the revenue generated to cover costs. Real yields are assumed as they are adjusted for inflation hence captures the macro-economic fundamentals in each country.¹²⁰ The higher the RY, the more likely an MFI is financially sustainable (Ayayi & Sene 2010). The other expectation is that the more the number of clients served (NOAB), the better the chances of financial sustainability. With regards to economies of scale, the larger the outreach (number of clients served – not necessarily borrowers), the more likely an MFI is financially sustainable. Common financial knowledge states that outstanding loans limit financial resources available for MFIs. In this realm, the more the number of outstanding loans (NOLO) the lesser the chances of an MFI to be financially sustainable. It is also the intuition of this study to question whether MFIs' assets contribute to financial sustainability. The MFI size is captured by the log of assets whilst the economies of scale are evident in the scope of outreach – large or small outreach (Bogan 2012).

5.5 Empirical results

In defining how financing structure relate to financial sustainability, random effects probit model, cluster robust probit model as well as the standard probit model are run. Only the standard probit model is significant at 5% level.¹²¹ Since coefficients are not interpreted, average marginal effects are estimated whose co-efficients are interpreted under the maximum likelihood framework (Torres-reyna 2014). Table 5.3 presents marginal effects for the probit model.

¹¹⁹ Satisfying regulatory requirements for deposit attraction is costly, though the actual cost attached to deposits alone is generally low.

¹²⁰ Real yields differ with countries as the inflation adjustment captures the country specific macro-economy. This variable in part stood in for analysis based on sample-disaggregation by country. Sample disaggregation by country given the micro panel assumed do not provide sound results as some countries have few MFIs captured in the sample.

¹²¹ This model is adjusted to cater for clustering and robust standard errors.

5.5.1 Financing structure and financial sustainability

Donations, equity and borrowings are the significant financing variables explaining financial sustainability. In concurrence with Bogan (2012), increased use of donations reduces the likelihood of MFIs being financially sustainable by 43%. As noted in the descriptive statistics, donations are the least used MFI financing source averaging \$0.1577 million for the sampled MFIs. Correlation analysis in Chapter 4 showed a significant negative relationship between donations and GLP. Thus the contribution of donations to the loan book is insignificant hence the limiting role of donations on financial sustainability. Recent evidence provided in Chapter 3 notes that donations are mostly used in capacitating microfinance institutions and in financing product design. Therefore, donations have a limited role in generating interest income for MFIs. This finding is in tandem with earlier studies by Bogan (2012) and Sekabira (2013) who realized a negative link between donations and financial sustainability.

Equity spur financial sustainability by 28% due to the low cost associated with it. Kinde (2012) notes that since law does not obligate MFIs to pay dividends, equity generally remains a cheap source to MFIs hence can drive financial sustainability (Sekabira 2013). Whilst raising equity financing can be costly when done through stock exchanges, SADC region is still to record its first statistic of an MFI that lists successfully on a stock exchange¹²². This nullifies floatation costs for MFIs making equity a cheap financing source. However, this financing source remains scarce as investors are not keen to invest in microfinance (Cull et al. 2009). The cost on debt (Kinde 2012) militate against financial sustainability (Louis et al. 2013). Results confirm that, debt (borrowings) reduce the likelihood of MFI to be financially sustainable by 7%. Tehulu (2013) reports that borrowings have not been popular in financing MFIs mostly because of the costly periodical payments meant to service such regardless of whether an MFI makes a profit or not. As testified in earlier sections, most MFIs in SADC are not financially sustainable – a pre-requisite for borrowing. This limits the uptake of borrowings as a financing source for MFIs. Also, under-developed debt markets in SADC except in South Africa makes debt expensive and in least developed financial markets. Descriptive statistics reveal that borrowings are the second

¹²² This does not include listed commercial banks that took to microfinance by way of down-sizing.

least used MFI financing option after donations. Impliedly, the role of borrowings in expanding the loan book is negligible.

Table 5.3: Average marginal effects (shaded variables are significant)

	Average Marginal Effects	Std. Err.	z	P>z	[95% Conf.	Interval]
Donations	-.4279499	.1654861	-2.59	0.010***	-.752296	-.103603
Equity	.1928132	.1103855	1.75	0.081*	-.023538	.4091648
Borrowings	-.0745433	.0420989	-1.77	0.077*	-.157055	.007969
Deposits	.0264942	.1152595	0.23	0.818	-.199410	.2523986
Mature	-.123886	.0669473	-1.85	0.064*	-.255100	.0073284
New	-.2974507	.0768666	-3.87	0.000***	-.448106	-.146794
Attract_deposit	-.2510116	.0755098	-3.32	0.001***	-.399008	-.103015
For_profit	.0328305	.0890143	-0.37	0.712	-.207295	.1416344
Log_Assets	.0444967	.0647485	0.69	0.492	-.0824081	.1714014
Log_NOAB	-.1724574	.169846	-1.02	0.310	-.505349	.1604346
Log_GLP	.0693736	.0655761	1.06	0.290	-.059153	.1979004
Regulated	-.0701426	.0882279	-0.80	0.427	-.243066	.1027809
log_CPB	-.0730299	.0220233	-3.32	0.001***	-.116194	-.029865
RY	.2276437	.1295197	1.76	0.079*	-.026210	.4814976
PAR	-.5925851	.2322486	-2.55	0.011**	-1.04778	-.137386
log_NOLO	-.1075945	.1706807	0.63	0.528	-.226933	.4421226
Small_outreach	.0671427	.0738691	0.91	0.363	-.077638	.2119234
Large_outreach	-.0527112	.0972813	-0.54	0.588	-.243379	.1379566
NGO	-.1264856	.0956768	-1.32	0.186	-.314008	.0610376
Bank	-.1010016	.0955626	-1.06	0.291	-.288300	.0862976
SACCOS	.0342894	.1302911	0.26	0.792	-.221076	.2896552

Source: Author's compilation. Significance: ***1%, **5%, *10%

5.5.2 MFI characteristics and financial sustainability

New and mature MFIs same as the attraction of deposits are the only significant MFI characteristics that explain financial sustainability. Descriptive statistics presented in Chapter 4 revealed that CPB for new MFIs is high (in excess of \$400) whilst the GLP is limited. A low financing base (new MFIs recorded the least values per each financing option as shown in Chapter 4) explains the suppressed GLP; hence, the interest income for new MFIs is expected to be minimal. Lafourcade et al. (2006) writes that the lack of cost-efficient enhancing information technology for African MFIs reduces viability of MFIs. Though the PAR for new MFI is the least (14.8%) compared to other MFI growth phases, the high CPB given explains why new MFIs are financially unsustainable. Schneider and Greathouse (2004) identified limited experience, competition from established MFIs, erroneous and un-sharpened business models as some of the reasons behind the un-sustainability of new MFIs. Competition for new MFIs comes from commercial banks that are down-scaling in SADC (Karim et al. 2011).

Mature MFIs are less likely to be financially sustainable by a margin of 12%. As shown in Chapter 4, the poor loan portfolio (PAR of 25%) reminiscent of mature MFIs limit financial sustainability of mature MFIs. This finding is in line with findings of Ayayi and Sene (2010) and Iezza (2010) who observed the key role played by PAR in proffering financial sustainability. Also, the tendency of MFIs out-growing their management capacities as they become mature invites financial un-sustainability (Marwa & Aziakpono, 2016). Given poor investment in risk management for most SADC MFIs, management usually fail to keep track of exposures translating into erosion of revenues hence financial un-sustainability.

In line with Tehulu (2013), the attraction of deposits pencil-in regulatory costs (capital requirements, expensive IT upgrades and hiring of IT experts — Kauffman & Riggins 2012). These costs weigh down financial sustainability chances of MFIs that collect deposits especially in the short run¹²³ (Mwangi et al. 2015). This finding explains why deposits have an insignificant positive effect on financial sustainability as most SADC countries compel MFIs to meet minimum capital provisions whether they attract deposits or not (Karim et al. 2011). Moreover,

¹²³ Provisioning for deposit attraction is still a new phenomenon with most MFIs in SADC thus the initial cost are bound to be much straining in the short run.

statutory provisions allowing MFIs to attract deposits are a new phenomenon in most SADC countries hence combining loan and savings management requires massive investment. Given these costs, it might take a long time for surmountable deposits to be attracted that can edify financial sustainability (de Soussa & Frankiewicz, 2004). Therefore, despite deposits being the most popular financing option for MFIs as per the descriptive statistics, their effect on financial sustainability though positive is insignificant.

5.5.3 Efficiency variables and financial sustainability

Financial sustainability is about limiting costs (Paul 2010) thus, an increase in CPB reduces the likelihood of an MFI attaining financial sustainability significantly by 7%. Descriptive statistics show that, CPB is high for the SADC sample hence the limiting effect on financial sustainability. CPB usually is high owing to the costs of reaching rural clients in a costly manner. The PAR as a measure of untenable loans pulls down financial sustainability. Increase of PAR dis-engages financial sustainability by 59%. This variable thus has to be kept under check if MFIs are to be financially sustainable. Summary Statistics showed that PAR is double that of the global average cited by Bogan (2012). Impliedly, SADC MFIs have not been efficient in managing their loan portfolios. Ayayi and Sene (2010) identified the critical role played by PAR in determining the financial sustainability.

von Pischke (1996) and Sekabira (2013) found out that lending rates are vital as they provide an avenue for revenue accumulation by MFIs. The spread between the deposit rate and the lending rate creates revenue for MFIs which can be used to cover costs. This explains the significant positive link of the RY and financial sustainability of the magnitude of 23%. The charging of commercial rates on loans props the long standing of MFIs (Gonzalez–vega 1994). Real yields quoted in this study were adjusted for inflation in the MFI's host country. In a way, real yields varied with each country thereby capturing the heterogeneity of the macro economies of the 11 countries.

5.5.4 Predicted probability and correct classification

The average predicted probabilities from the probit model shows that selected MFIs are 36.08% likely to be financially sustainable. The implication is that the sampled SADC MFIs are mostly financially un–sustainable. This substantiates Karim et al. (2011) findings that SADC MFIs are

‘disappearing’. MFIs thus have a limited scope in addressing both poverty and financial exclusion. Approximately 80% of the results are correctly classified validating the explanatory power of the model.

5.6 Chapter summary

The study sought to label the role of financing structure on financial sustainability assuming selected MFIs in SADC given the commercialisation wave. The realization is that, financing structure is vital in defining financial sustainability. Donations and borrowings (debt) reduce the likelihood of MFIs to be financially sustainable. Descriptive statistics showed that donations are the least used MFI financing option thereby limiting their role in expanding the loan book. Also, donations are mostly meant to further the social mission – thereby opposing financial sustainability efforts. As noted in chapter two, the debt market in SADC is largely underdeveloped making borrowing expensive for MFIs. This explains their limiting effect on financial sustainability. Cheaper commercial financing sources, namely equity and deposits¹²⁴ supports financial sustainability.

Equity promotes financial sustainability mostly because of the low costs attached to it. The costs attached to the attraction of savings (expertise, investment in IT and capital requirements) explain the restraining effect of deposit attraction on financial sustainability. Costs related to deposit collection require substantial accumulation of deposits before their effect can be noticed on financial sustainability.

A weigh–down on financial sustainability caused by non-performing loans proxied by the high portfolio at risk and high cost per borrower MFIs explain financial un–sustainability. The study also notes that, the charging of commercial interest rates on loans improves the likelihood of MFIs to be financially sustainable.

¹²⁴ Though deposits got an insignificant positive effect on financial sustainability.

CHAPTER 6

FINANCING STRUCTURE AND OUTREACH OF SELECTED SOUTHERN AFRICA DEVELOPMENT COMMUNITY MICROFINANCE INSTITUTIONS¹²⁵

6.1 Introduction

Hermes and Lensink (2007:F1) noted that “Lack of access to credit is generally seen as one of the main reasons why people in developing economies remain poor.” Soaring financial exclusion is attributed to the lack of strong financial intermediation backed by sound MFI financing (Kapper 2007). Though microfinance has proven its mettle by enhancing access to financial services and products to the poor (Iezza & La Cour 2010; Khawari 2004; Ayayi & Sene 2010), MFIs’ capital constraints in developing countries limit access to financial services by the larger proportion of the population (Kumar 2012). Demand for microfinance thus remains unquenched as stated by Paul (2010:7) that “demand for microfinance currently outstrips supply by \$300 billion and in order to reach those without access, MFIs need to expand.”

The quest to meet the ballooning demand for microfinance has seen MFIs embracing commercial financing options to broaden their financing options – a phenomenon known as commercialization.¹²⁶ Commercialisation has been applauded for ensuring financial sustainability¹²⁷ and opening up broader financing opportunities for MFIs (Sekabira 2013). In this respect, the manner MFIs are financed (financing structure) has greatly changed. Hoque and Chishty (2011) note the marked transition of NGOs and NBFIs into regulated microfinance banks capable of attracting deposits as the search for adequate financing sources. Quayes (2012) giving the instance of Latin American MFIs acknowledges the significant strides made by NGOs in deviating from subsidy dependency into profitable institutions. Deposit attraction and debt usage has been increasing, evidencing the evolution of MFI financing structure (Hoque et al.

¹²⁵ A research paper based on this chapter, titled ‘Financing Structure and Outreach of selected SADC Microfinance Institutions’ was presented at the Economic Research Southern Africa Workshop on Politics, Finance and Growth; 30-31 March 2016, South African Reserve Bank, Pretoria, South Africa. The paper has been published in the 2016 Issue 3, Continued 2 of the Corporate Ownership and Control Journal.

¹²⁶ A growing trend towards commercial microfinance in respect of financing and pricing of products and services

¹²⁷ Ability of MFIs to serve a large number of the poor for long periods without altruistic support such as donations, subsidies and grants

2011). According to Lafourcade et al. (2006:123), “The future of microfinance as a commercial industry has become the dominant strand of thought behind several international development organizations.” This has seen a growing trend towards commercial microfinance in respect of financing and pricing of products. This paradigm is linked to the institutionalists’¹²⁸ camp which posit that express fight against poverty require permanent institutions (financially sustainable MFIs) that are large and stable, exploit massive outreach and are innovative hence operate at low cost (Rhyne 1998; Robinson 2001; Brau & Woller 2004; Von Pischke 1996). Murdoch (2000:620) restated that:

...financially sustainable programs can make the greatest dent in poverty. Third, that financial sustainability will give programs access to commercial financial markets. Fourth, that since they come at no cost to donors, financially sustainable programs are superior weapons for fighting poverty. Fifth, that subsidised programs are inefficient and thus bound to fail. Sixth, that subsidised credit most often ends up in the hands of the non-poor. Seventh, that successful microfinance programs must be non-government programs. And, eighth, that subsidising credit undermines savings mobilisation.

However, commercialisation has brought fears of mission drift¹²⁹ — igniting debate on whether financial sustainability deepen outreach or spark mission drift. Welfarists¹³⁰ content that commercial MFIs disregard the poor thus the future of microfinance has to be financed by donations, subsidies or grants (Brau & Woller 2004). Increasing lending rates on loans is perceived to deter the poor from accessing loans and other financial services. Institutionalists argue that given the limited resources availed by donors (Johnson 2015), inconsistency of donors in funding development (Ayayi & Sene 2010), on the back of unchecked abuse of donations, outreach is limited. Moreover, considering that donors and governments are considering weaning MFIs, commercial financing methods are being instituted (Hoque & Chishty 2011). They wrote that “...commercialisation is the only way to attract money needed to expand the outreach and to liberate the system from dependency on foundations and other charitable donors” (Hoque & Chishty 2011:2)

¹²⁸ Advocates of the financial mission who deem financial sustainability as a tool to arrest poverty – see Rhyne (1998)

¹²⁹ Preference by MFIs to pursue profitability and sustainability (financial mission) at the expense of serving the poor (social mission)

¹³⁰ Advocates of the social mission who believe in serving the poor, see Brau & Woller (2004)

Evidence on the relationship between financial sustainability and outreach has remained inconclusive. There is evidence aligned to financial sustainability being a hindrance to outreach depth (Cull et al. 2006; Cull et al. 2009; Hermes et al. 2011; Hartarska & Nadolnyak 2007). Other writings hail the compatibility of financial sustainability and outreach (Quayes 2012; Manos & Yaron 2009). Conversely, Hermes and Lensink (2007:8) argued that:

...most of the evidence on the depth of outreach on microfinance institutions suffers from being anecdotal and case study driven. The existing studies do not systematically explain differences in depth of outreach of microfinance institutions, nor do they explicitly explore whether there is a trade-off between the depth of outreach versus the strife for financial sustainability.

Whereas prior inquiry investigated the link between financial sustainability and outreach; and recently, the link between financing structure and financial sustainability (Sekabira 2013; Bogan 2012), a direct relationship between financing structure and outreach remain one of the virgin research areas in microfinance as sparse facts exist. The relationship remains implied in studies meant to interrogate either outreach or MFI efficiency (Kumar 2012; Cull et al. 2011; Hermes & Lensink 2011; Quayes 2012; Zerai & Rani 2012). Whilst Johnson (2015) delved on capital structure and outreach depth considering 74 Sub-Saharan Africa MFIs, his study did not address the entirety of outreach, i.e. depth and breadth. It remains an obligation to understand the relationship between the financing structure and outreach depth and breadth as well as identifying institutional characteristics that have an impact on outreach considering selected SADC MFIs. Cull et al. (2009:19) noted that “the exact nature of trade-offs in microfinance differ across regions, but meaningful trade-offs need to be recognized and weighed everywhere.” In this realm, refocusing on how commercialised MFI financing relates to both depth and breadth of outreach in SADC with the intent of informing MFI financing is a worthy cause.

The SADC region is of interest given the deplorable poverty levels which call for informed MFI financing methods for sustainable poverty alleviation. The International Council of Social Welfare stated that more than half of the SADC population lives on less than a dollar per day (ICWS 2014). Still, gloomy microfinance outreach in SADC (Karim et al. 2011) explains financial exclusion and the looming poverty in the region thereby calling for appropriate MFI

financing structure which confer the best outreach, hence control poverty. The financing structure of MFIs in the region mimics that of commercial banks – implying that commercialisation has taken its toll in the region (Karim et al. 2011). In this realm, it remains worthy to question how commercial financing relates to outreach in the region.

The study is structured as follows: the next section reviews the literature; section 6.3 describes the connection between MFI financing structure and outreach whilst 6.4 presents SADC stylised facts of the same. Data and the methodology, empirical results and the conclusions are covered in sections 6.5, 6.6 and 6.7 respectively.

6.2 Literature review

6.2.1 Microfinance outreach

The provision of microfinance products and services (loans, deposits, insurance, consultancy, etc) to a broad clientele base defines outreach (Conning 1999). When MFIs serve the poor, that is, seeking to reduce poverty, it is termed outreach depth. Outreach breadth is when a large clientele base is served by MFIs though such clients may not be necessarily poor (Schreiner 2000). Depth is synonymous with the welfarists approach to microfinance that is, seeking to fight poverty by serving the core-poor and female clients. Microfinance schism surfaces from the mission inclination an MFI observes in its operations. Outreach breadth is pro the financial mission where large numbers of clients are served in a financially viable manner. Depth is practiced by MFIs that value the social mission thus seeks to serve ‘truly’ poor clients (Brau & Woller 2004).

Schreiner (1999) suggested various ways of evaluating the net benefits of microfinance to the community as indicated by: worth to clients, cost to clients, depth, breadth, length and scope. Yaron, (1992) proposed: the value of outstanding loan portfolio and the average value of loans extended the amount of savings and average value of savings accounts, the variety of financial services offered, the number of branches and village posts, percentage of the total rural population served, the annual growth of MFI assets in real terms and women participation. However, outreach depth and breadth are popular in microfinance literature hence are discussed hereunder.

6.2.1.1 Breadth of outreach

The total number of the clients served by an MFI defines the breadth of outreach (Hishigsurem 2004; Rosenberg 2009). In this regard, the total number of clients doing micro-saving, borrowing, micro-insurance, remittances, etc delineates outreach breadth (Ganka 2010; Mersland & Strom, 2009; Hermes et al. 2008). This definition goes well with institutionalists who believe in serving large numbers of the poor hence make a noticeable impact on poverty alleviation. Thus, the shallow outreach depth is covered up by large number of clients served (Navajas et al. 2000). The more the clients served, the greater the impact of microfinance on poverty levels. In line with the financial systems approach, financially-sustainable MFIs widen outreach breadth thus reach as many of the poor as poverty-oriented organizations with narrow breadth (Rosenberg 1996). For example, some self-sustainable credit unions in Colombia had more poor clients than some poverty-oriented village banks in Costa Rica and Guatemala (Paxton and Cuevas 1998).

6.2.1.2 Depth of outreach

Outreach depth is synonymous with the poverty camp and it defines the extent microfinance reaches and serves the poor. Schreiner (1999:7) wrote that

Depth of outreach is the value that society attaches to the net gain of a given client. In welfare theory, depth is the weight of a client in the social-welfare function. If society has a preference for the poor, then poverty is a good proxy for depth. For example, society likely prefers that a street child or a widow get a given net gain than that a richer person get the same net gain.

The gist of the issue is that if MFIs fail to serve the poor, then they operate purely as banks. The amount of purely-poor clients served better defines an MFI's outreach depth as it meets the social mission of microfinance.

The number of borrowers or clients as a measure of outreach considers only the total number of clients served from various products of MFIs without their relative level of poverty. Thus,

average loan size has been used as a proxy of the depth of outreach using relative level of poverty. Smaller loans indicate poorer customers (Cull et al. 2007). Other measures of outreach depth include percentage of female borrowers,¹³¹ rural clients¹³² served, minorities reached and the illiterate clients (Schreiner 1999). Outreach depth thus is more pronounced where the less privileged are accorded chance to access financial services.

6.2.2 MFI financing

Financing is one important resource that MFIs need. Financing enlarges outreach; facilitate the development of fresh MFI products and services, backs exploration of new regions and unserved markets as well as grow MFI loan portfolios. Greenfield (start-up) MFIs are mostly funded by equity and grants as these sources finance start-up infrastructure and establishes an MFI's competence. Different financing sources fund different MFI missions. Debt finances portfolio enlargement as well as refinancing of maturing debt. Equity, being owner provided is meant to meet regulatory provisions and provide a foundation for securing other forms of capital (Ledgerwood 2013).

Financing for MFIs can come from intermediaries which include Microfinance Investment Vehicles (MIVs), Microfinance Holding Companies (MHC), Local Apex organizations as well as peer to peer aggregators. Public and private investors are the major funders of intermediaries. Bilateral agencies, multilateral agencies, development finance institutions (DFIs) and local government agencies constitute popular public funders. Foundations, NGOs, private institutional investors (pension funds and insurance companies) and individual private investors (the general public and high net worth individuals) formulate the consulate of private funders. The constituency of cross-border funders is made up of global funders that channel and invest in foreign countries whilst local funders commit their funds within the domestic market. Most funders are inspired by a set of blended values, i.e. furthering the scale of microfinance whilst at the same time promoting commercialisation and financial inclusion (Ledgerwood 2013; Vacklen 2010).

¹³¹ Women are traditionally excluded from formal education and employment thus are more susceptible to poverty than man

¹³² Rural population is partially served by formal financial institutions

6.2.2.1 Public funders

Public funders pursue development goals which are mainly in line with financial inclusion of underserved sectors of the society. Bilateral public funders such as SIDA and USAID are mostly funded through national budgets unlike multilateral funders (e.g. the UN and the WB) which are financed by country contributions. Kreditanstalt für Wiederaufbau (KfW), FMO and IFC – private sector inclined division of the WB) are DFIs funded by country shareholder contributions, retained earnings as well as bond issues. DFIs are after the social and financial missions and provide financing in the form of grants, guarantees, debt and equity. Public funders enhance private sector investment in microfinance by endowing MFIs where the private is unkeen to take part (Ledgerwood, 2013).

6.2.2.2 Bilateral and multilateral funders

Bilateral agencies constitute a relationship between “...a specific government development agency that work directly with government in developing countries and other organizations” (Ledgerwood, 2013). The funds are channeled either through government or relevant NGOs. Multilateral agencies make available grants, guarantees and debt to MFIs in developing countries. Multilateral funders such as the African Development Bank (AfDB), the Asian Development Bank (ADB), the International Bank of Reconstruction and Development (IBRD) have broad ownership from government of both developing and developed countries.

6.2.2.3 Development finance institutions

DFIs unlike Multilateral Development Banks (MDBs) focus on the private sector. DFIs invest in MFIs through intermediaries such as KfW, IFC, EBRD and FMO. DFIs being quasi-government institutions pursue dual bottom lines (reaching out to the poor whilst valuing economic viability – social and financial mission). CGAP (2011) notes that “The top 5 DFIs include KfW with 18% of overall funds invested, followed by the WB with 11%, the ADB with 11% , IFC at 9%, and EBRD 7%.

6.2.2.4 Private funders

These are after both the financial and the social mission. Popular private funders are foundations established by successful individuals and companies (the Bill and Mellinda Gates Foundation and the Ford Foundation). These philanthropic funders pursue poverty alleviation world-wide.

Foundations provide funding to MFIs in the form of grants, capacity building, product design and seed capital where MFIs are in the start-up phase.

6.2.2.5 Non governmental organisations

Domestic and foreign NGOs which fund microfinance get such funding from both public and private sources as well as individuals. NGOs make use of grants to support product development, providing seed capital; sponsor capacity building and reaching financially excluded groups. In most case, NGOs are involved in the establishment of MFIs and they become shareholders when such MFIs transform into commercial institutions. Examples of NGOs which assumed shareholdership of MFIs include ACP (Accion Comunitaria del Peru) founder of MiBanco, FIE NGO (founder of Banco FIE in Bolivia), Separ (Founder of Confianza in Peru), Urwego (founder of UOB in Rwanda) and Aceda (founder of Aceda in Cambodia) (Braun & Woller 2004).

6.2.2.6 Institutional investors

These are in the realm of pension funds and insurance companies which invest in microfinance as a way of diversifying their asset classes. These investors pursue dual bottom lines that is, they cherish social impact same as economic returns. However, institutional investors do invest in microfinance through intermediaries which guarantee them a financial return. Most institutional investors are particular about information on the performance of MFIs in which they invest in, namely operational, financial and social results.

6.2.2.7 Banks

Besides funding MFIs by way of providing loans to MFIs, local commercial banks pursuing dual bottom lines can also downscale to provide microfinance services to clients. Commercial banks can also invest in microfinance through providing equity to MFIs, form co-branded and specialized subsidiaries aiming to expand the financial sector as well as reaching new markets.

6.2.2.8 Individuals

Wealthy individuals can provide equity funding to MFIs or they can invest via MIVs whilst other individuals may make donations to MFIs as a way of supporting social impact.

6.2.2.9 Microfinance investment vehicles

These are expert investment managers which look after private investments. MIVs thus do not own the funds they invest in microfinance but are merely intermediaries between foreign investors and MFIs. Most MIVs seek to reach underserved and rural markets. A Geneva based MIV – Symbiotics notes that, \$6.8 billion invested in microfinance in 2011 was raised by 102 MIVs. If an MIV issues out a loan to MFIs, its mostly short to medium term and such loans are availed to financially sustainable MFIs. Some MIVs purchase an equity stake in some MFIs as a way of financing the operations of such institutions. Since MIVs are mostly international investment managers, their loans are mostly in hard currencies (USD, Pound and the Euro). MIVs such as the European Fund for South East Europe (EFSE), the Microfinance Enhancement Facility (MEF) and the Rural Impulse Microfinance Fund (RIMF) are visible in private placement of debt and hybrid funds.

6.2.2.10 Microfinance holding companies

NGOs can formulate a global ‘network’ of MFIs through a holding company. Every network normally has a set of donors and investors who channel funds to all connected MFIs world-wide in the form of grants, equity, debt and guarantees as per the needs of the affiliate MFI. ACCION International and Opportunity International are the most popular global Microfinance Holding Companies. However, the holding company model is getting smaller – giving room for formalized institutional models. Holding companies are in most cases the majority sponsors in the network of MFIs and banks. FINCA, one of the largest network of MFIs owns FINCA Microfinance Holdings (FMH). FMH is into scaling up outreach, pioneer new microfinance products such as savings and insurance services to current clients. Holding companies have a number of investors at the holding company level thus holding companies usually own 100% of all its subsidiaries e.g. FMH and Procredit.

6.2.2.11 Local apex organizations

This is a collection of funds initiated internally (within a country) and lend to MFIs. MFIs use such funds to grow their loan portfolios by lending to low income clients. Apexes allocate such funds to MFIs in the form of subsidized loans and sometimes as grants. Public funds finance apexes though apexes can assume variant institutional formations e.g. development banks, NGOs, donors, commercial banks as well as dedicated government programs. These

organizations are most visible in Latin America and South Asia where they extend loans to cooperatives, microfinance banks and NGOs.

Peer to Peer Aggregators such as Kiva, MicroPlace, GlobeFunder, Babylon and Good Return are examples of peer to peer lenders which permit direct investment in MFIs by individuals. Small investments by individuals are aggregated by these organizations into larger funds that can be extended to MFIs. These organizations mostly provide loans that are denominated in hard currencies hence currency risk for MFIs.

6.2.3 Funding tools

The distinguishing features of a number of funding tools is premised on, "...the mission and scope of the funder" (Ledgerwood 2013:6). Also, the tools used are determined by MFI's performance, the capacity to attract deposits, the legal framework of the country, the degree and scope of financial development. More financing tools avail themselves to MFIs as they mature. Exploiting domestic capital markets enables MFIs to broaden their funding sources, limit exposure to currency and exchange rate risks as well as support portfolio growth and its diversification. Ledgerwood (2013) notes that 60% of the total global microfinance funding is directed mostly to Latin America, Europe and Central Asia (the funding is used by only 10 countries in the said countries).

Investment and geographic concentration remains a limiting block to the expansion of microfinance in other global regions. Investment concentration also reflects the absence of financially sustainable MFIs in other regions which are not appealing to investors. Of the USD 9.1 billion dedicated to microfinance by DFIs in 2010, half the amount went to only 30 beneficiaries, i.e. 12 MFIs (with a mean investment of \$120 million per MFI) and MIVs, holding companies and local banks totaling 18. Such Intermediaries recorded an average of \$120 million per institution. Small MFIs and unsustainable institutions thus face financing challenges. Lafourcade et al. (2006) notes that MFI financing structure vary with regions as funding tools are reminiscent of the degree of financial development in each region. Figure 2.12 though based on 2006 data demonstrates the variant ways MFIs in different regions are financed. This section presents the various MFI funding tools.

6.2.3.1 grants or donations

Governments, international donors, philanthropists and corporates are the major sources of grants (Kapper 2007). Grants are in most cases non-refundable once received from donors. Grants deepen outreach, that is, they enable the extension of microfinance services and products to the underserved clients. They can also finance the development of the market and product innovation. Ledgerwood (2013) connotes that, grants can finance technical issues in microfinance such as Microfinance associations and capacity building initiatives, initiate investment in risky frontier markets and programmes where returns might be negative. Grants assume a first-loss role similar to that of equity – allowing for innovation meant to deepen outreach. First-loss reserves moderates losses for new and untried microfinance initiatives. Grants thus allow for the extension of microfinance to un-served and financially excluded market niche such as education and health. This study does not make a distinction between grants and donations and subsidies, thus such can be used interchangeably.

However, grants are becoming more inclined towards financial sustainability, i.e. performance-based. Only MFIs that meet desired performance measures receive grants whilst some donors prefer a cost-sharing structure. Given that grants are blamed for propagating inefficiency, dependency, distortions and mis-allocation, performance grants under a cost-sharing structure limits excess grants, i.e. only resources required to ‘cause’ the required performance are released.

6.2.3.2 Debt

The distinguishing feature of debt from other external sources of financing is that, debt requires an MFI to repay the principal (within a given timeframe) making use of periodical installments at an interest (Kinde 2012). MFIs can acquire either secured or un-secured debt. Secured debt is backed by an MFI’s assets thus in the event that the MFI fails to repay, the pledged assets can be disposed to enable repayment of the debt. Un-secured debt does not have the backing of an MFI’s assets but is issued on the pretext of sound credit-worthiness of the MFI as well as the willingness of the MFI to repay the debt.

Debt has tranches such as the senior term loans, and subordinated loans. Senior term loans are superior thus take first preference in repayment after depositors in the event of liquidation. Syndicated loans are senior tranche loans where a number of lenders participate in providing a large MFI loan. Globally, debt financing for MFIs in the form of term loans come from MIVs, DFIs and banks (domestic and international) (Isern & Porteous 2006). MFIs can also make use of subordinated debt (inferior to the senior tranche). Subordinated debt has a claim on the assets of an MFI only after senior debt has been paid. Given the high risk, subordinated debt enjoys high interest. Subordinated debt is mostly used to meet minimum capital requirements as Basel provisions stipulate that it can count as equity for regulatory calculations. Most subordinated debt can be converted into equity thereby permitting investor to enjoy an MFI's profits.

Though they are not popular in the funding of MFIs especially in developing countries, bonds are another version of debt financing that MFIs can use. Bonds are negotiable debt instruments with a fixed periodic interest payment during the tenure of the bond. Since most MFIs are not public institutions, bonds are generally privately placed with institutional investors such as pension funds, banks (commercial), insurance companies as well as mutual funds. Domestic bonds are denominated in the local currency thus aligns with the funding needs of MFIs unlike international bonds (denominated in foreign currency – typically hard currencies). International bonds thus create currency risk which few MFIs are equipped to manage. However, the non-existence of rating companies, regulations for the trading of bonds and standardized reporting curtails the use of bonds in financing MFIs in most developing countries. This study assumes that debt refers to the total of the different forms of debt that an MFI uses at any given instance.

6.2.3.3 Deposits

This source of funding has a dual role to MFIs. It is a key service that MFIs can provide to clients whilst at the same time it is a cheap local currency financing resource on condition that an MFI is sanctioned to collect deposits. In the absence of a bank run, a small portion of deposits is used to meet daily withdrawals whilst the bigger portion funds the broadening of the loan portfolio. Regulation that sanction MFI deposit collection tends to be country specific though mostly strict (Lafourcade et al. 2006). Some of the regulatory provisions include minimum capital requirements, reporting standards and management information systems which are costly

to comply with (Tehulu 2013; Cull et al. 2011). Regulation can be meant to limit market wide financial instability (prudential regulation) or to protect clients (non-prudential regulations). Deposits formulate a stable MFI financing resource assuming a stable financial system (Bredbeg & Ek 2011).

6.2.3.4 Equity

Equity defines an ownership stake in an MFI thus an equity holder has a claim on an MFI's assets. The primary equity in most instances is availed by NGOs or investors (private), holding companies, multilateral institutions and DFIs (Hoque & Chishty 2011). However, cooperatives get equity financing from their members in the form of membership fees. DFIs provide equity financing especially where MFIs pursue goals congruent to their cause. However, private equity funds are gradually being more popular equity providers in microfinance. Whilst NGOs got equity in MFIs, it is not meant for ownership purposes. Equity in this case is offered as a form of donation from both private and public funders. Such equity has a possibility of being converted into real transferable equity on condition of the NGO transforming into a profit-motivated institution. Equity financing is beefed up on a yearly basis with retained earnings for as long as the MFI is profitable. Since most MFIs are not listed on stock exchanges, equity is privately placed though there is evidence of MFIs that have successfully listed on stock exchanges. Where equity financing require issuing shares on stock markets, floatation costs raise the cost of equity. Table 6.1 provides a summary of the sources of different MFI funding tools.

Table 6.1: Summary of MFI funding tools and funding sources

Donations/subsidies/grants	Governments, International Donors, Philanthropists, Corporates (Buss 1999; Kapper 2007)
Debt/borrowings/leverage	Private Investors, Banks – Local and International, Multilateral Organizations, Governments (MIVs) (Isern & Porteous, 2005)
Equity	National and International non Profit Organizations; Private Individuals - IPOs, Governments, Banks (Isern & Porteous 2005; Hoque & Chishty 2011)
Savings/deposits	Micro-savers

Source: Author's compilation

6.2.4 Financial ratings and MFI financing

Under-developed markets may not have financial ratings same as credit bureaus (Ledgerwood 2013). Investors and donors (MFI funders) assess an MFI's viability (operational, financial and social performance) before making a decision to invest. Ratings provides an educated view of the expected MFI financial sustainability and credit-worthiness by way of making a comprehensive risk analyses, financial performance, market outlook and governance structures. Ratings provide standardised metrics of an MFI's prospects in relation to unforeseen external shocks. Ratings also are pursuant of MFI governance structures, quality of operations and systems and the inclination of decisions with affirmed objectives which are construed to long-run financial sustainability. Ratings thus validate an MFI's ability to meet all debt obligations and quantify default risk in a given period.

Ratings can also avail information on the social performance of an MFI. Such ratings quantify social risk (risk of failing to meet social performance goals) and social performance (chances of contributing to social performance). Social ratings show how processes are aiding an MFI to migrate towards the attainment of social goals. It becomes apparent that microfinance investors would make investment decisions based on ratings. Essentially, lack of ratings limits microfinance investment (Ledgerwood 2013).

6.2.5 MFI funding theories

A number of theories try to explain the manner MFIs are financed. Though the traditional M&M¹³³ capital structure theory sets the tone on corporate funding issues; it remains irrelevant in explaining funding of microfinance given the uniqueness of the microfinance industry. The conventional corporate assumed by the M&M theory does not dove-tail with the lending institutions pursuing double bottom lines prioritized in microfinance (Cohen 2003). Though evidence on the relevance of the LCT in explaining MFI funding and financial sustainability disapproves it, it remains a popular theory same as the profit incentive theory (PIT).

¹³³ The groundbreaking capital structure theory of the 1950s by Modigliani and Miller glued on the proposition that that firm value is independent of the manner it is capitalized.

The LCT acknowledges funding transition evident in MFIs as they develop into financially sustainable institutions. The LCT connotes that funding transition depends on the initial charter assumed by an MFI (Kapper 2007). The Industry Perspective (Campion & White 1999) details the motive to transform by NGOs (donor financed) through shedding donations and adopting commercial funding as they seek financial sustainability. The Industry Perspective further states that MFIs capitalise on cost efficient information technology as they transform. Whilst commercial MFIs use commercial funding from the onset, such meagre sources are tight and cannot edify outreach and sustainability. Improved financial performance would open more commercial funding sources, access to capital markets and use of financial instruments in raising funds.

On the other hand, the PIT emphasizes that commercial funding raises MFI cost consciousness hence advance MFI efficiency and sustainability (Kapper 2007; Bogan 2012; Sekabira 2013). Essentially, MFIs keen on remaining operational for a long time need not use concessionary priced capital. The PIT upholds that, commercial MFIs seek to maximise revenue and limit operational costs hence accumulate surpluses that cover expenses. The surpluses are then used to further outreach, thus making development to pay for itself (Brau & Woller 2004). Donor funded MFIs do not respond to profit maximisation and cost minimisation pressures thus deliberately opt to choose outreach depth over efficiency by serving the poorest and rural clients which naturally have extra lending costs thereby limiting outreach efforts (Bogan 2012; de Aghion & Morduch 2005).

6.2.6 Commercialisation

Lensink (2011) underscored that, commercialisation of microfinance, competition, technology, financial liberalisation and regulation explain the change in financing structure of MFIs. In line with the industry perspective, there is a widespread belief that transformation commercialises microfinance and brings better returns (Campion & White 1999; Meehan 2004; Kapper 2007). This transformation is akin to institutionalists who adhere to the altering of ‘...management structure, operational efficiency, and sources of financing to resemble those more like a for-profit institution’ (Johnson 2015:122). The gist of commercialisation is to make microfinance self-financing, being able to cover both operational and financial costs hence can survive

without external support (de Sousa–Shields & Frankiewicz 2004). Commercialisation is a reality, thus we cannot afford to ignore it since international donor agencies are now embracing commercialisation in all programs they fund (Hoque & Chishty 2011).

6.3 Trade-off between financing structure and outreach of microfinance

Demystifying the tradeoff between MFI financing and outreach remain an epic task as limited evidence exist. This is because few studies focused on this area. Most of the evidence presented hereunder was implied in studies which pursued either outreach or sustainability. Kumar (2012) explored the impact of capital structure on MFI performance noting the agency theory. GMM and IV inference on MIX panel data of 782 MFIs in 92 countries concluded that debt had a significant negative impact on outreach. Debt–servicing costs make the granting of loans to the poor more expensive. Outreach depth in this study was measured through average loan size, average loan size adjusted for GDP per capita as well as the percentage for female clients served by an MFI. Chief amongst the findings was the fact that capital structure had no impact on either the breadth or depth of outreach.

Debate on microfinance trade–offs by Hartarska and Nadolnyak (2007) noted that deposit taking institutions attain broader outreach. The suspicion was that regulation (which allows MFIs to attract deposits) could be having an un–observed effect on outreach. However, an OLS empirical analysis by Cull et al. (2011) on whether regulation curtail profitability and outreach noted that supervision is connected to large average loan sizes – forestalling lending to MSMEs and women. Notable in the paper is that, cost linked to deposit attraction may limit outreach depth despite the fact that savings are a cheap financing option. Hermes et al. (2011) on outreach and efficiency of MFIs underscored the importance of commercial funds in expanding outreach to the poor for protracted periods. On the other hand, commercial funding invites competition amongst MFIs thereby leading to lower costs and interest rates, thereby benef the poor.

By mere inference, financial sustainability by definition upholds commercial funding and disregard subsidies. Instinctively, where financial sustainability is linked to outreach, its almost like linking commercial funding and outreach. Assuming this manner of thinking, Quayes (2012) recorded a supportive relationship between financial sustainability and depth of outreach. This

position is explained by innovation in lending by MFIs which pursue financial sustainability. Conversely, Zerai & Rani (2012) showed that there is no link between financial sustainability and outreach. A weak relationship was identified between outreach depth and financial sustainability whilst a strong positive correlation was observed between financial sustainability and outreach breadth. Deductively, commercial funding optimises outreach breadth and limits outreach depth. This position is supported by Wagenaar (2012) and Millson (2013) whose studies concluded that commercial MFIs extent lumpier loans and have a limited proportion of female clients. These results thus portray the inconclusiveness of the perceived relationship between MFI funding and outreach.

6.4 Stylised facts on MFI funding and outreach in SADC

This section notes funding challenges as well as low outreach chronicling the un-abated poverty in the region. An earlier survey on the state of outreach in Africa by Lafourcade et al. (2006) spotted that outreach in Southern Africa was spurred by Teba Bank (South Africa) whose gross loan portfolio accounted for 24% of the outstanding micro loans in Africa and 83% of the total Southern African micro loans. The outreach of the Southern African region is supported by the inclusion of micro-lending aligned commercial banks. As noted by Karim et al. (2011), outreach in the region remains low hence poverty is unchallenged. Failure of MFIs including the curatorship of the biggest microfinance bank in region (African Bank) in 2014 explains the ailing outreach.

Capitalisation of MFIs in SADC is via deposits, equity and retained earnings as well as wholesale priced funds from wholesale markets (Karim et al. 2011). The funding mix imitate the one assumed by commercial banks. Donations are provided by international donor societies, public institutions and philanthropic individuals. Regulatory provisions sanctioning the collection of deposits (to protect the public) have allowed MFIs to attract deposits. Lack of adequate financing for MFIs in the region raised the need of structuring financial rescue packages as a way of meeting outreach demands (Karim et al. 2011).

6.5 Methodology

6.5.1 Data

The study uses MIX¹³⁴ data. Though marred with reporting inconsistencies and self-selection bias; MIX data, according to Kumar (2012:331) "...is the most detailed publicly available data on financial, portfolio and outreach performance of MFIs on a global scale." Commercialisation informed the sample assumed in this study. Accordingly, commercial-oriented MFIs and NGOs in the process of evolving into full-commercial institutions are considered. Traces of commercial funding in the financing structure of NGOs pointed to funding transition.

MFIs with missing details required for the study were not considered in the study. A sample of 60 MFIs was selected for the period 2005–2010 and summarised in Table 4.2. An un-balanced panel with a minimum of 4 and a maximum of 6 observations is assumed. Key MFI characteristics such as age, NOAB, NOLO, profit and regulation status, financing structure details, number of female borrowers and average loan sizes were provided in the data accessed.

Reflecting on the theoretical underpinnings of commercialisation, the sample comprise a blend of MFI charters (NGOs, banks, NBFIs and cooperatives) which naturally assume diverse financing structures good for the investigation being instituted. Notable is that non-profit MFIs (NGOs) had commercial debt as well as savings in their funding structure. Interestingly, most MFIs (85%), regardless of charter attract deposits in line with findings by Lafourcade et al. (2006).

6.5.2 Model specification

The study employed univariate multiple linear regression under panel framework. Panel methods were handy in broadening data points and degrees of freedom hence permit for novel data analysis techniques to be assumed (Greene 2003; Greene 2002). Gujarati (2004:637) noted that "By combining time series of cross-section observations, panel data give more informative data, more variability, less collinearity among variables, more degrees of freedom and more

¹³⁴ Information is accessible on www.mixmarket.org

efficiency.” Panel data captures time variant (random) and time invariant (fixed) effects making it superior to either cross section or time series data. Panel methods¹³⁵ can capture unobserved effects in the data which cannot be detected by either time series or cross-sectional data individually. In line with Hartarska and Nadolnyak (2007) and Kumar (2012), MFI specific characteristics, funding and macro-economic fundamentals are included in the general estimation equation below.

$$Out_{it} = c + \beta Fin_{it} + \beta' MSC_{it} + \alpha MEF_{it} + u_i + \varepsilon_{it} \dots \dots \dots Equation 6.1$$

Where Out_{it} stands for outreach measures, c is a constant, Fin_{it} are financing methods per MFI per time period, MSC_{it} represents MFI specific characteristics whilst MEF_{it} captures macro-economic fundamentals obtaining in the host country of an MFI. Unobserved effects are represented by U_i with the error term being accommodated in ε_{it} .

Financing variables include: borrowings (BA), equity (EA), donations (DA) and deposits (DTA)¹³⁶. All these are scaled against assets as a way of smoothening results. MFI specific variables comprise MFI age,¹³⁷ regulation status, and profit status as well as the deposit attraction dummy. Real yields control for macro-economic factors since they are adjusted for inflation.

Using panel data require that an appropriate model is selected between fixed and random effect. Whilst fixed effects fail to account for the ever changing MFI business environment, random effects models might still be inferior to pooled OLS model in some instances. This can be verified through the Hausman and the Breusch-Pagan LM tests (Gujarati 2004). Though the study uses a micro-panel, contemporaneous correlation between panels is tested too. In-built STATA¹³⁸ (vce options) commands which address panel weaknesses such as autocorrelation and heteroskedasticity are resorted to in making the selected model robust.

¹³⁵ A detailed description of the functionality of the panel framework is provided in Chapter 4.

¹³⁶ Retained earnings are the omitted variable according to the ‘n-1’ rule meant to address collinearity amongst financing variables.

¹³⁷ MFIs whose age range between 0 - 4 are classified as ‘new’; age from 4 - 8 is classified as ‘young’ whilst age in excess of 8 is referred to as ‘mature’. See Bogan 2012.

¹³⁸ A data analysis software package popular in economics

Noting the ‘schism’ in defining outreach, the study embraces both outreach depth and breadth as per welfarists and institutionalists positions. Siding with welfarists, the dependant variable in equation 6.2 is the average loan size. Whilst there are various measures of outreach depth, data on the average loan size was readily available hence its use. Equation 6.3 is based on institutionalism, that is outreach is defined by number of active borrowers – NOAB).

$$AvLoan_{it} = \alpha_i + \beta_1mature_{it} + \beta_2new_{it} + \beta_3EA_{it} + \beta_4DA_{it} + \beta_5BA_{it} + \beta_6DTA_{it} + \beta_7For_profit_{it} + \beta_8 Bank_{it} + \beta_9 regulated_{it} + \beta_{10}RY_{it} + \varepsilon_{it} \dots \dots \dots Equation 6.2$$

$$NOAB_{it} = \alpha_i + \beta_1mature_{it} + \beta_2new_{it} + \beta_3EA_{it} + \beta_4DA_{it} + \beta_5BA_{it} + \beta_6DTA_{it} + \beta_7For_profit_{it} + \beta_8 Bank_{it} + \beta_9 regulated_{it} + \beta_{10}RY_{it} + \varepsilon_{it} \dots \dots \dots Equation 6.3$$

6.6 Empirical results

Hausman test approved random effects model over the fixed effects model. The Breusch Pagan LM test accredited the random effects model over the OLS. Treating the model to account for cluster effects and robust standard errors exempt of heteroskedasticity and autocorrelation gave results shown in Table 6.2.

6.6.1 Outreach depth

Equity, borrowings and deposits are the only significant funding options that have an effect on outreach depth. Equity being shareholder–provided comes at a low cost hence can further outreach depth thus explaining the significant positive link with outreach depth. Banerjee et al. (2011) emphasized that, equity consolidates depth of outreach thus has a restricted impact on breadth. Borrowings recorded a significant negative relationship with outreach depth, cementing findings by Johnson (2015) and Kumar (2012). Kinde (2012) noted that debt in Africa is costly thus in this case, it cannot be used to fund costly small loans required by the poor. Since MFIs lend at higher rates than the cost of debt in order to attain financial sustainability, costly debt make loans too expensive for the poor. Additional huge administrative costs attached to small loans meant for the poor imply that debt limits outreach depth.

Deposits too, being a cheap source of commercial financing presents an opportunity for deepening outreach. Notable is that, micro savers are capable of accessing loans from MFIs as

their small deposits act as a repayment guarantee. All the same, the low deposit rates allows MFIs to on-lend to the poor at a low rate. Recent studies by Bogan (2012) verify this finding.

Table 6.2: Summary of Regression Results (depth and breadth)

Variables	Outreach depth	Robust standard errors	Outreach breadth	Robust standard errors
Donations	-.0000346	.000027	-.1860664	.1303978
Equity	.0000206*	.000000085	-.0288971*	.0050474
Borrowings	-.0000356*	.000017	-.1262593*	.0597128
Deposits	.000104*	.0000000375	.0020244*	.0000877
Mature	.0000399	.0000432	.2167651	.1184506
New	.0001982*	.000089	-.9150059*	.1406789
Bank	-.0000972	.0000875	-.3373289	.6191932
For profit	-.0000552	.0000611	-.3811054	.4177677
Regulated	-.0000493	.0000611	-.5036514	.4590551
Real Yields	.00015	.0002408	.0001712	.001028
Constant	-.0003381	.0001212	.64665	.4536836

* 5% significance, **10% significance

Source: Author's compilation

New MFIs showed a significant positive relationship with outreach depth. New commercial MFIs have limited financing, limiting their ability to increase outreach breadth (Banerjee et al. (2011). Such MFIs thus prefer to build a client base by opting to serve low end clients (depth) as they grow. Outreach breadth at this stage is limited mainly because of various operational challenges and competition from established MFIs and microfinance banks. Significant outreach depth associated with new MFIs can also be a function of the fact that MFIs mostly start with poor clients as 'everyone' is welcome. With time (age), bad debtors are discovered and MFIs amend their lending methods. This explains the L-shape in the general relationship between outreach and MFI age. Donor funded MFIs are mostly inclined towards serving the poor, a mission valued by donors. It is only at later stages that donor funded MFIs adopt commercial funding as they expand outreach.

6.6.2 Outreach breadth

The same financing structure variables that affect the depth of outreach do affect the breadth of outreach but in a different manner. Only deposits have a positive effect on the breadth of outreach whilst equity and borrowings negatively relate to outreach breadth. Hartaska and Nadolnyak (2011) found out that deposit taking MFIs recorded extended breadth of outreach in line with the current study. The explanation is linked to the volume of deposits attracted at low costs translating into huge outreach breadth (Lafourcade et al. 2006). Borrowings being costly as testified by Kinde (2012) would make loans expensive thus clients are naturally deterred from borrowing. Evidence presented in Chapter 2 showed that debt markets are under-developed in the SADC region thereby explaining their perceived high cost.

Equity for MFIs is a limited resource which cannot be stretched to fund broad outreach. In SADC, very few if any MFIs have gone public hence cannot maximise on equity financing in loaning (Banerjee et al. 2011). This explains the negative association between equity and outreach breadth. Also, equity in most MFIs is owned by NGOs who normally are aligned to the social mission. The only MFI characteristic with a significant influence on the breadth of outreach is the dummy for new MFIs. According to the LCT (Bogan 2012; Sekabira 2013) and institutional metamorphosis of Campion and White (1999), new MFIs are usually unsustainable, have blunt business models and struggle with capitalisation and competition. This holds back outreach breadth.

6.7 Summary chapter

The chapter investigated the relationship between MFI financing structure and outreach for selected SADC MFIs in view of the commercialisation trend. Unbalanced panel methods under fixed and random effects framework confirmed that, both outreach depth and breadth are affected by the same financing variables though in a different fashion. Deposits, equity and new MFIs further outreach depth whilst borrowings have a damaging effect on outreach depth. Since outreach depth is affected by huge administration costs linked to small loans, cheap commercial funding sources further outreach depth (equity and savings). This substantiates why costly commercial funding sources (debt) hinder outreach depth and breadth. Equity being a limited resource cannot broaden outreach compared to deposits which significantly expand the breadth

of outreach. In–adquate funding, competition, operational challenges and un–sharpened business models for new MFIs limit outreach breadth. In this realm, the quest to reach the poor and to exploit maximum outreach can be achieved by allowing MFIs to attract deposits.

The next chapter presents a summary of the whole study, draw conclusions bades on the set objectives in chapter one and suggests recommendations meant to improve financial sustainability of MFIs and outreach.

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction

This chapter consolidates findings from the empirical chapters which explored the relationship between: the LCT and financial sustainability, MFI financing and financial sustainability as well as MFI financing and outreach (depth and breadth). Conclusions are derived from the findings hence recommendations on the manner MFIs must be financed to promote financial sustainability as well as outreach are suggested. This final chapter of the thesis also presents direction on further research given the limitations of the current study.

7.2 Summary

Acknowledging the need to finance MFIs as a way of instilling financial sustainability, this thesis delved into analysing the relationship between MFI financing and financial sustainability with the intention of recommending the ideal MFI financing structure capable of spurring financial sustainability and outreach (depth and breadth). Outreach continues to be a focus area of this study since it is the ultimate goal of serving the marginalised and financially excluded once MFIs get proper financing and are financially sustainable. The objectives pursued in this study are as follows:

- 1 To synthesise the relevance of the life cycle theory in explaining the capital structure and financial sustainability of SADC MFIs.
- 2 To explore the relationship between financing structure and financial sustainability of selected SADC MFIs.
- 3 To analyse the relationship between the financing structure and outreach of selected SADC MFIs.

Chapter 2 provided an overview of the state of SADC's macroeconomy, financial development, the gaps thereof as well as the scope and role of microfinance in addressing gaps in financial development and access problems. Though the macro indicators have generally improved for

most SADC countries, no major shift has been recorded on financial development. Financial sector reforms promoted depth not access as MSMEs and the poor remain financially excluded. The reforms meant to stir financial development have been linked to banking crises in a number of countries in SADC. Opening up of markets unmatched with sound regulation account for poor financial development same as the incidence of financial sector crises. Under-developed capital markets have failed to trigger meaningful growth as access remains suppressed. Pursuing financial development based on both depth and access is ideal for steering growth and inclusiveness of the financial sector. Re-engineering financial development through embracing sustainable microfinance is capable of improving access (financial inclusion), develop the banking sector as well as initiation of financial reforms (Barr 2005).

However, an assessment of the state of microfinance in SADC by Karim et al. (2011) showed that outreach is poor, financing is a problem, commercialisation is a reality whilst MFIs are mostly financially sustainable. Regulation of microfinance also is rudimentary. Deposits have become a major MFI financing source in SADC (this is supported by commercial banks and SACCOS that attract huge deposits). Debt financing is low given the underdeveloped debt market in SADC. Moreover, low financial sustainability levels translate into credit risk to debt-providers thereby limiting debt available to MFIs. Equity financing is low and is mainly used by small and unregulated MFIs which cannot access other sources of financing. On the same note, prominent NGOs in many SADC countries have turned into microfinance banks hence outreach is supported more by banks in SADC. High operational costs coupled with high portfolio at risk weigh down financial sustainability efforts. Though growth is evident (volume of loans, number of borrowers and volume of deposits are improving), microfinance is failing to meet the demand. Expansion of microfinance in SADC through proper financing methods that support both financial sustainability and outreach is inevitable.

Chapter 3 reviewed literature on MFI financing, financial sustainability and the relationship thereof. The basic realisation is that subsidies are on the decline and they limit financial sustainability and outreach (depth and breadth). ‘Smart’ subsidies are suggested as the best option to curb abuse, mis-targeting and subsidy dependency hence stimulate financial sustainability in the long run. However, no practical and rigorous analytical tools have been

devised to quantify smart subsidies required to make MFIs financially sustainable. Evidence confirms that commercialisation is trending as NGOs and NBFIs are turning into regulated MFIs licensed to attract deposits – enhancing their expansion efforts. Exploration of the nexus between MFI financing structure and financial sustainability remain on the low side as most evidence is implied in studies pursuing other microfinance debates. Variation in the relationship can be traced back to varying study set-ups and focus areas. Literature urges regional-based studies for informed comparisons to be made.

Chapter 4 explored the essence of the LCT in explaining MFI financing and financial sustainability. The LCT is based on the notion that, MFIs age towards financial sustainability. MFI business models are sharpened over time through learning from experience, same as financing models of MFIs hence financial sustainability would suffice. The LCT also connotes that at maturity, MFIs evolve into microfinance banks as they capitalize on sound performance. Evidence from selected SADC MFIs defy the LCT. MFI growth phases only cannot explain financial sustainability. Rather, a new trend whereby young MFIs are more financially sustainable than new and mature is realised. Noting that the PAR is a function of the scale of lending, young MFIs got better quality loan portfolios compared to mature MFIs especially considering the insignificant variation in their lending scales. Young MFIs emerge as the only MFI growth category which is hugely financed by borrowings. Considering an earlier study by Coleman (2008), the realisation is that, borrowings pressures MFIs to be extra careful in their lending practises. This limits default risk and enable MFIs to raise enough revenues to pay back the borrowed funds – thereby substantiating the agency theory. The chapter notes the congruency of these findings with the inverted U efficiency curve observed in a Tanzanian study by Marwa and Aziakpono, (2016). Start-up (new) MFIs got limited scales which also limit the interest income they can raise on the back of high CPB. Large and mature MFIs are mostly marred by poor portfolio quality and high CPB, thereby overturning their financial sustainability. Financing variables, efficiency and risk measures showed materiality in explaining financial sustainability. Equity and lending rates supported financial sustainability whilst donations significantly constrained financial sustainability. The CPB, NOAB and the GLP also limited financial sustainability.

Chapter 5 focused the link between MFI financing and financial sustainability. The chapter was informed by the understanding that it is only financially sustainable MFIs that have a lasting effect on poverty alleviation efforts and provision of financial services to the unbanked and marginalized poor. The financing structure which ascertain such an effect given the commercialisation trend was worth looking into. Debt, donations, ‘new’ MFIs, deposit attraction, CPB and PAR showed a limiting effect on financial sustainability. Equity and the charging of market interest rates supported financial sustainability. The realization thereof is that financial sustainability is sensitive to risk (PAR) as well as costs (operational cost – CPB or regulation-based costs). The limited value of donations and the social-performance driven business model explain their waning role of donations in supporting financial sustainability. Cost and risk associated with debt also explain the limiting role debt has on financial sustainability in the region. Operational challenges, limited financing sources, competition coupled with unsharpened business models explain why ‘new’ MFIs are not financially sustainable. Deposit attraction is attached to a lot of costs (capital reserves, IT upgrading, expert hiring and monitoring costs) which retard financial sustainability moves.

Chapter 6 explored how MFI financing relates to outreach (depth and breadth). Noting the commercialisation trend, questioning how MFIs can be financed to register the best depth and breadth was worth the effort. Outreach is a concern in SADC given high level of financial exclusion, poverty and failure of MFIs. Results show that the same variables affect both the outreach depth and the breadth though in a different manner. Depth is significantly constrained by debt whilst equity, deposits and new MFI dummy recorded a positive effect on outreach depth. Outreach breadth is promoted by deposits whilst equity, debt and the dummy for new MFIs limits it. New MFIs develop their business models centring on the market niche (low end) least served by large sustainable MFIs. Limited financial resources and a multiplicity of operational challenges faced by new MFIs limits outreach breadth. Also, most new MFIs are mostly donor funded thus are directed to lend to the poor by the funders. Equity, being of low cost furthers outreach depth. It being scarce means that it cannot finance breadth. Breadth is supported by deposits. Statistics show that total deposits outdo the total loan book of SADC MFIs. Such low cost plentiful resources advances outreach breadth. Whereas debt is supposed to further outreach breadth, its cost explain its unpopularity in SADC hence the negative effect on outreach breadth.

7.3 Conclusions

In light of the objectives pursued by this study and the summary presented in the prior section, this section presents the conclusions of the study.

7.3.1 Young MFIs are more financially sustainable than mature MFIs

The study concludes that financial sustainability does not follow the trend prescribed by the LCT. A new trend is observed whereby young MFIs are more financially sustainable than new and mature MFIs. Young MFIs have superior loan quality when compared to mature MFIs and are more cost-efficient when compared to new MFIs. Considering the insignificant difference in GLP between young and mature MFIs, a superior quality of the loan portfolio means that young MFIs reap more interest income than mature MFIs. Young MFIs also are dominantly financed by borrowings signifying the brunt of the ‘agency theory’. The study notes the contribution of scale of lending operations (NOAB), quality of the loan portfolio, cost efficiency and the charging of higher interest rates as key determinants of financial sustainability.

7.3.2 Financing Structure is critical in determining financial sustainability

The study concludes that, not all commercial financing options improve financial sustainability. Evidence shows that equity is the only financing option with a significant supportive role on financial sustainability. Donations being a limited financing option as per the descriptive statistics explain their limited role in expanding the loan book (GLP). Costs attached to borrowings given inefficient debt markets in SADC hinders MFIs’ chances of attaining financial sustainability. Deposits (savings) recorded an insignificant positive link with financial sustainability given the significant limiting effect of deposit collection dummy on financial sustainability. Costs attached to the management and meeting deposit collection regulatory requirements explain this. Poor loan portfolio quality and cost inefficiency further curtail the financial sustainability of MFIs. The study also concludes that the charging of higher interest on loans enhances financial sustainability. In line with prior studies, MFIs are mostly financially unsustainable as only 36% are financially sustainable.

7.3.3 Financing options got a bearing on the level of outreach depth and breadth

The major conclusion is that both outreach depth and breadth are influenced by the same financing options, though in a different way. Outreach depth is enhanced by equity and deposits whilst borrowings hold back lending to the poor. Outreach depth is synonymous with high administrative costs. Since borrowings on their own are costly, use of the same in serving the poor normally reduce chances of financial sustainability. New MFIs also further outreach depth as financing constrains restrict their broadening of the loan book. The breadth of outreach is furthered by deposits whilst equity, borrowings and new MFIs limit outreach breadth.

7.4 Recommendations

This section suggests recommendations given the conclusions presented in the prior section. The recommendations are meant to improve chances of financial sustainability and outreach for MFIs thus both MFI operational strategies and policy framework proposals are provided.

7.4.1 Improve the quality of the loan portfolio

The study noted a poor loan portfolio quality (PAR was double the global average) — translating into towering provisions for bad loans thereby cutting on financial sustainability. Proper credit analysis backed by appropriate risk management computer-based programs ought to be instituted to reduce the portfolio at risk. Lafourcade et al. (2006) stressed that SADC MFIs lag in capitalising on information technology in managing their operations. Hauswald and Marquez. (2004) reiterated that the use of screening technology addresses adverse selection thereby lowering default risk and increasing total gains from lending activities. Karim et al. (2011) also noted that SADC MFIs rarely make use of credit reference databases (credit bureaus) in lending exposing them to default risk. Adopting information technology, consulting with credit bureaus when lending and infusing a strong collection strategy to track all debtors helps in greatly reducing the portfolio at risk hence improve financial sustainability levels. Assessment of repayment ability of borrowers (checking the number of dependents, extent of indebtedness, age, assets owned etc) remain a key issue in the controlling non-performing loans.

7.4.2 Embracing cost-efficiency in running operations

The study noted high average CPB above the global average. This as noted by ResponsAbility (2014) is caused by poor infrastructure and sparse population density making it costly for MFIs to reach and monitor remote clients. Making use of cost-efficient technology-based ways of reaching remote clients such as mobile banking reduces CPB for MFIs (Karim et al. 2011). Mobile banking reduces costs associated with the dispensation of payments. ResponsAbility (2014) also notes that innovation in lending activities especially adopting of group lending greatly reduces monitoring costs for MFIs as the lending mechanism is self-controlling and effective in reducing defaults. Another cost centre for MFIs is the source of financing adopted in financing operations. As alluded to in chapter two, debt remains a costly financing source in SADC mainly because of under-developed debt markets in most countries. It is therefore prudent to limit the use of debt financing especially when considering the already high operating costs and CPB. Servicing borrowed funds is an obligation to an MFI regardless of the level of sustainability of the MFI hence must be the need to control debt the level of financing.

7.4.3 Promoting efficient financial markets

Under-developed capital markets foil commercialization efforts. Commercialisation thus still need to be complemented by vibrant equity and debt markets that can easily be exploited by MFIs. MFIs operate more efficiently and are more sustainable in efficient financial markets (ResponsAbility 2014; Barr 2004). Efficient financial markets are enhanced by market and institutional development as defined by the regulatory framework. Chapter two noted that the debt market is under-developed in most SADC countries making debt financing costly. It was also noted that most SADC governments do not participate in the debt market thereby stifling activity. A spirited development of the debt market will enable more players to be involved in the debt market thereby making debt financing cheaper for the microfinance sector. It remains a key policy issue to endow markets with quality ancillary structures (expertise, rating agencies, credit bureaus, e.t.c) necessary for the operation of debt markets. Also, recognising MFIs as a key player in the financial market reduces the negative sentiments attached to microfinance allowing MFIs to access funding at lower rates. This requires addressing the opacity linked to the microfinance sector especially the viability and risk structure of MFIs. Where microfinance has excelled (Latin America), microfinance is an investment vehicle offering a competitive return to

investors hence allowing MFIs to attract huge financing. Adopting the same in SADC will open financing lines for the microfinance sector.

7.4.4 Improving the regulatory framework

The manner a financial system works is a function of the regulatory framework in place. Karim et al. (2011) lamented the out-dated regulatory framework for the microfinance sector in SADC which normally constrain the viability of MFIs. Whilst deposits are a popular MFI financing option, their contribution to financial sustainability is weak given that deposit attraction is costly on account of regulatory obligations. Regulatory costs especially minimum capital requirements and meeting reporting standards are a tax to the viability of MFIs. Regulation must be crafted to create a favorable operating environment for MFIs and provide market infrastructure which promote transparency in the microfinance sector – a condition necessary in attracting investors. It is the duty of the governments to institute statutory provisions for the formation of credit referral institutions in order to tame non-performing loans for MFIs as well as promoting responsible lending. Responsible lending limits loaning to overborrowed clients hence reduce chances of non-repayment of loans, thereby supporting financial sustainability.

7.4.5 Removal of controls on lending rates

Allowing a competitive operating environment for MFIs also calls for the removal of interest rate ceilings which are still being imposed by some SADC governments. Chapter 5 recorded the positive role played by lending rates in edifying financial sustainability. SADC governments ought to promote competition in the financial sector as a way of rationalizing lending rates than gazetting ceilings on lending rates. Controlling interest rates affects financial sustainability and reduces outreach. Removal of out-dated controls on financial markets will go a long way in providing a level playing ground for the microfinance sector.

7.5 Indications for further study

This study was restricted to the use of selected SADC MFIs instead of considering the whole population of MFIs in their diversity because of data un-availability. Whilst effort was made to

include many MFIs, inconsistent-reporting restrained such efforts. A more comprehensive study thus could be done by way of getting funding which allow for direct data collection from individual MFIs, same as their regulators.

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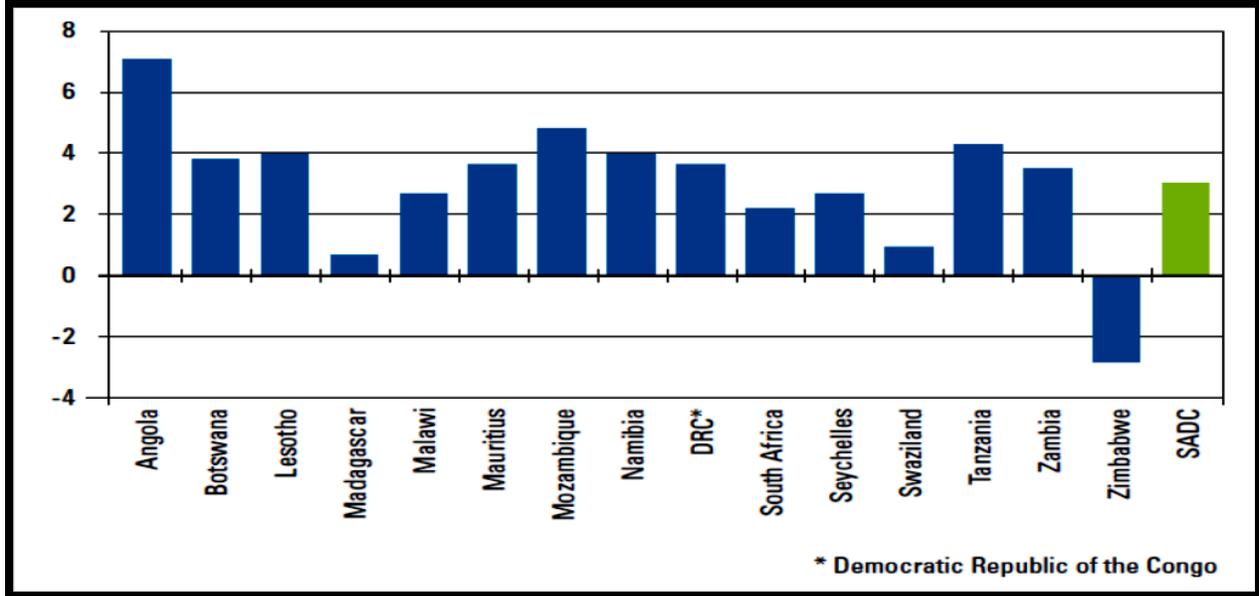
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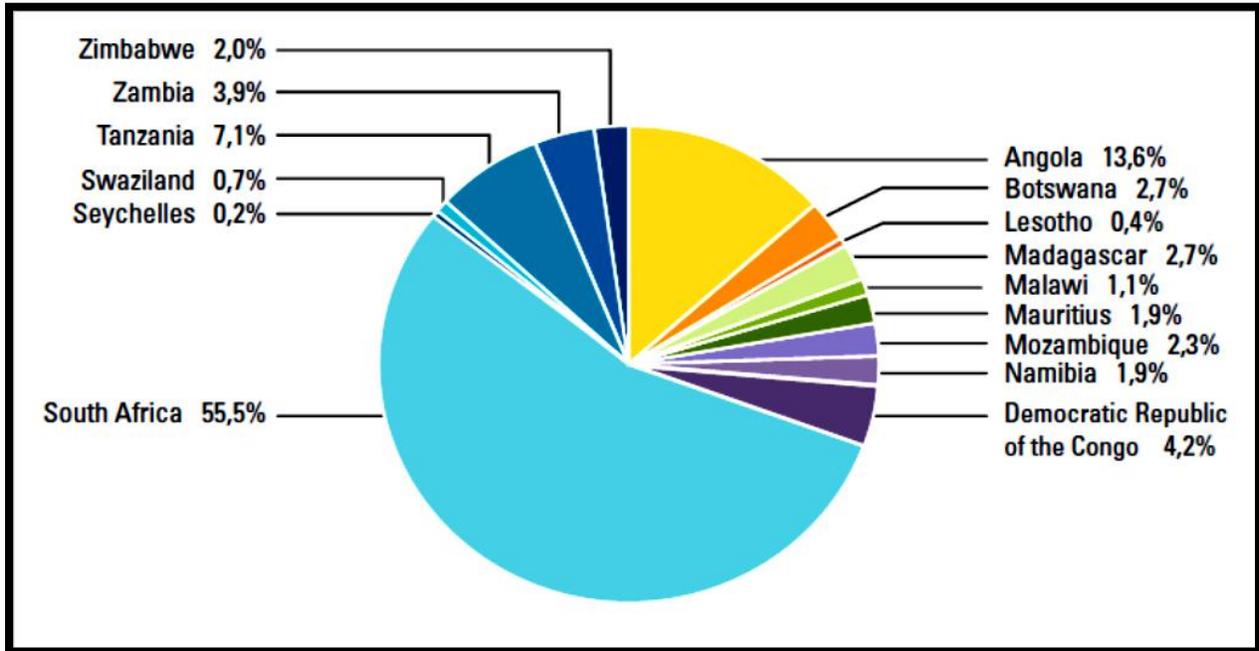
APPENDICES

Figure A1: Average GDP per capita growth for SADC (2003-2013)



Source: World Bank (2013:6)

Figure A2: Regional GDP country share in SADC (2013)



Source: World Bank (2013:7)

Table A1: 2008 fiscal balances for SADC countries (RISDP 2008 targets)

	Government Revenues			<i>of which:</i>	
	Revenue (1)	Grants (2)	Total Revenues (3) = (1) + (2)	Fiscal Balance (5)	Spending (6)
Middle-Income Countries	3.0	0.0	3.0	0.8	2.2
Botswana	-4.8	0.7	-4.1	0.2	-4.3
Lesotho	16.3	-1.7	14.6	9.5	5.1
Mauritius	2.6	-0.1	2.6	2.7	-0.1
Namibia	1.2	0.1	1.3	-0.1	1.4
South Africa	3.3	0.0	3.3	0.6	2.7
Swaziland	12.8	-0.9	11.9	4.6	7.3
MIC excluding South Africa	1.6	0.2	1.8	1.7	0.0
Low-Income Countries	4.8	1.5	6.3	2.4	4.0
Madagascar	5.5	2.3	7.8	3.6	4.2
Malawi	7.1	5.9	13.0	2.6	10.3
Mozambique	4.2	2.6	6.9	3.3	3.6
Tanzania	4.7	2.7	7.3	0.9	6.5
Zambia	1.1	-4.4	-3.3	3.6	-6.9
Fragile countries					
DRC	10.6	3.6	14.2	2.6	11.5
Oil exporters	6.5	0.0	6.5	18.6	-12.1
Angola	6.5	0.0	6.5	18.6	-12.1

Source: Burgess (2009: 9)

Table A2: Measures of access and use of banking facilities in SADC (2008 and 2009)

Adapted from SARB (2014:14)

Table A3: SADC financial markets, instruments and intermediaries

Source: SARB (2014:12)

Table A.4: Microfinance studies which employed panel framework

Study	Time frame	Data
Tilahun Aemiro Tehulu (2013) Determinants of financial sustainability of microfinance institutions in East Africa	2004-2009 (6 years)	-East Africa (10 countries) -23 MFIs; -121 observations - MIX unbalance panel data
Jonathan Conning (1999) Outreach, sustainability and leverage in monitored and peer-monitored lending	1998 (1 year)	72 MFOs in Asia were used
Vicki L. Bogan (2012) Capital structure and sustainability: An empirical study of microfinance institutions	2003-2006 (4 years)	-578 observations; MIX data from Africa, East Asia, Eastern Europe, Latin America, East and South Asia; 3 diamond MFIs & USD 1.3 m assets.
Ashim Kumar Kar (2011) Does capital structure and financing structure have any relevance to the performance of microfinance institutions?	2000-2007 (8 years)	MIX data for 92 countries, 782 MFIs without debt levels above 100% -NGOs, NBFIs, Banks, Cooperatives at various life cycle stages
Monzurul Hoque and Muhammad Chishty (2011) Commercialisation and changes in capital structure in microfinance institutions. An innovation or a wrong turn?	2003-2008 (6 years)	-MIX panel data of 24 MFIs from across the world (ie 144 observations at most) -3 diamonds -USD2.5 mln assets
Valentina Hartarska and Denis Nadolnyak (2007) Do regulated microfinance institutions achieve better sustainability and outreach? Cross country evidence.	Not specified	-MIX 114 MFIs from 62 countries across the world -Panel data based on 4 and 5 diamonds
Author's compilation		