



The Impact of Operating Costs and Non-performing Loans (NPLs) on performance of Micro-Finance Institutions (MFIs) in Emerging Economies: A Case Study of MFIs in Zimbabwe (2010-2020)

Ephraim Matanda (Department of Banking and Finance, Great Zimbabwe University, Masvingo, Zimbabwe)

Email: eematanda@gmail.com

Tawona Matrokisi Chindara (Zimbabwe National Road Administration (ZINARA), Harare, Zimbabwe) Email:

tawchindara@gmail.com

Abstract

This paper investigates the impact of both operating costs and non-performing loans (NPLs) on the performance of microfinance institutions (MFIs) in Zimbabwe in the 21st century. Literature on the roles, costs and impact of MFIs on the growth and development of countries of the world is streamlined and discussed based on global, continental, regional and Zimbabwean experiences. We used an exploratory qualitative design to determine the effects of operating costs and NPLs on performance of MFIs in Zimbabwe. The study drew data from a sample of 125 respondents to come up with findings on the effects of operating costs, micro-loans, asset quality and NPLs on financial performance of MFIs, banks and similar institutions. The study discovered that both operating costs and NPLs have a strong negative relationship with financial performance of MFIs. We recommend that banks and MFIs need to effectively manage their operating costs and NPLs in their desire to maximize financial performance, investments, asset accumulation, generate wealth for shareholders, and act as engines of growth of their countries towards sustainable development.

Keywords: operating costs, non-performing loans, micro-finance, micro-finance institutions, micro-loans, asset quality

1. Introduction

In this paper, we aim to undertake an in-depth study of the impact of both operational costs and non-performing loans (NPLs) on the micro-finance sector of Zimbabwe in general and MFIs in particular. The microfinance sector like the small-to-medium enterprises (SMEs) sector are pillars of growth and development of nations and hence the need to uproot ills they face to put them on course. The concept of modern microfinance emerged in global village in the 1970s as a response to the failures (for example high NPLs rates) of state-financed credit programs (Armendáriz & Morduch, 2010). Although the interest rates in the micro-finance sector in Zimbabwe are known for being very unbearable, it has also been acknowledged that the sector is popular for having lower NPLs rates compared to those of the traditional or formal banking systems (Rosenberg, Gonzalez, & Narain, 2009; Sievers & Vandenberg, 2007).

However, in the ongoing attempts to meet the high demand for credit of micro-enterprises and consumers in the new Zimbabwe dollar era, MFIs are known for their failure to pay substantial attention to their operational cost efficiency and effectiveness. One of the reasons given is that borrowers are whisked into to paying high interest rates because of low incomes and purchasing power eroded from them by the unabated inflationary pressures and black market currency trading. While businesses in the informal economy are normally profitable due to the availability of promising investment opportunities (Armendáriz & Morduch, 2010), the poor and vulnerable citizens are often forced to pay a high price for credit. Based on the principle of diminishing marginal returns to capital, it has been found that Indian borrowers for instance were willing to pay 58 times more interest than their American counterpart borrowers (Lucas, 1990). As a result, MFIs normally pass the costs of lending on to the borrowers in the form of high interest rates, making them worse off contrary to the mandate these institutions are set to provide to the clients. Although NPLs rates are low in microfinance sector, operating costs are generally very high and inefficiently managed. Most MFIs do not last long in the business after their inception and hence the need for a trade-off between NPLs and operating costs, giving rise to an interesting research problem.

While banking sector scholars have long been absorbed in the relationship between operating costs and NPLs (Fiordelisi, Marques-Ibanez, & Molyneux, 2011; Hughes & Mester, 1993), we are not aware of similar studies that have been carried out using microfinance data. Such an omission could be very unfortunate considering the relationship between the high operating costs and interest rates in the MFIs industry in Zimbabwe. Moreover, an overemphasis on business risk in the micro-finance sector may lead to the practice of too strict credit screening for the borrowers, leaving the target clientele mainly the poor and vulnerable unserved (Pearlman, 2012; Amin, Rai, & Topa, 2003).

Therefore to cover the high operating costs, MFIs are forced by circumstances to charge high interest rates on their micro-loans (Battilana & Dorado, 2010; Hardy, Holden, & Prokopenko, 2003). There are several examples of MFIs in Zimbabwe charging between 15% and 30% per month per balance or more on loans to economically poor

individuals despite the 10-15% rates pegged by the Reserve Bank of Zimbabwe (RBZ, 2020). This sad practice or development has brought a lot of disempowerment to the intended beneficiaries of the facilities offered and discredit to the microfinance sector (Bateman, 2010; Malkin, 2008). Nevertheless, the high interest rates charged to clients in the microfinance sector are generally not realistic but result in abnormal profits against very low costs of delivering microcredit. According to Mersland and Strøm (2010), it is not the “desire for high profits” but the need to cover operating costs which is the main focus of MFIs. This observation is however in contrast to the practical circumstances faced by MFIs in Zimbabwe where costs of service delivery are low while interest rates to clients are added to loan balances monthly. Therefore, given reduced operational costs it means that MFIs' lending rates can be reduced, so that the vulnerable and poorer segments of the Zimbabwean population can be served in a sustainable manner.

Serrano-Cinca & Gutiérrez-Nieto (2014) argue that the relationship banking theory, which is practiced by many MFIs, suggests that there is an inverse relationship between operating costs and NPLs in the micro-finance sector. According to the theory more resources are often invested in creating and maintaining synergies with clients in the form of more screening and monitoring (Boot, 2000; Petersen & Rajan, 1995). This investment approach could make the overall operating costs of the MFIs increase, while, of course, repayment rates could improve), resulting a negative relationship between operating costs and NPLs (Puri, Rocholl, & Steffen, 2017). Moreover, this relationship is detailed in section 2 under the historical account of microfinance, where cost efficiency can be sacrificed for high repayment rates.

However, some literature drawn from banking studies worldwide shows that there is a positive link between NPLs and operating costs (Fiordelisi et al, 2011 and Williams, 2004). Berger and DeYoung (1997) postulate that poorly managed banks tend to offer many low-quality loans, which eventually would increase the stock of NPLs. Secondly, they stipulate that overemphasis on borrower screening costs results in the issuance of poor-quality loans, which could lead to more NPLs and costs of controlling them. Thirdly, external exogenous business factors can cause borrowers to default, resulting in lenders incurring additional monitoring costs to curb the rate of NPLs. Armendáriz & Morduch, (2010) state that MFIs mirror banks in their service provisioning, they can also expect a positive relationship between costs of operations and NPLs issued by MFIs. Hence taken together, the above illustrations postulate a strong relationship between NPLs and operating costs, we can examine the nature of the correlation between cost efficiency and asset quality in the microfinance sector of Zimbabwe. Previous banking studies have postulated a linear relationship between cost inefficiencies and NPLs rates. In reality NPLs reduce the cost inefficiency of MFIs, but a further increase in these non-performing assets leads to higher inefficiencies (Fiordelisi et al, 2011).

An important implication of the findings of the study is that microfinance practitioners should consider applying a trade-off between NPLs and operating costs in their credit facility provision to the clients. This is meant to see them avoid an overemphasis on asset quality at the expense of cost efficiency or minimisation. High operating costs are

argued by many researchers as the main challenge facing MFIs today (Mersland & Strøm, 2010). Therefore, MFIs operating with low NPLs could consider relaxing some of their borrowers screening and monitoring efforts in order to reduce their operational costs and include more vulnerable customers. Conversely MFIs with higher NPLs could also lay more emphasis on reducing magnitudes of such loans in order to assist them reduce their operating costs.

The rest of the paper is organized such that Section 2 reviews the literature that exists on the relationship between operating costs and NPLs in the micro-finance sector in general. Section 3 presents the research methodology used divided into the design, data section and describes the econometric methods applied by the study. Section 4 presents the empirical results of the study and discussion and Section 5 makes conclusions and makes recommendations.

2.0 Review of Related Literature

This section is going to review conceptual, theoretical and empirical literature for microfinance institutions. In reviewing the literature, the funnel approach was adopted where the researchers started by analyzing the concepts in question from a global perspective then narrow it to regionally and then to the Zimbabwean context. The literature review establishes and discusses major concepts of the study.

2.1 Conceptual and Theoretical Frameworks

The concept of microfinance

The Reserve Bank of Zimbabwe (RBZ) defines microfinance as the provision of a range of financial services, including savings, small loans, insurance, and money transfer services to marginalised members of the population and SMEs that do not have access to finance from formal financial institutions (RBZ, 2007). Similarly, Mwenda and Muuka (2004) echoed that microfinance is a provision of “a broad range of financial services such as deposits, loans, payment services, money transfers and insurance to the poor and low-income households and their farm or non-farm micro-enterprises”. Consistently, Herath (2018) equates microfinance to a tool for poverty and vulnerability reduction which is based on the premise that improved access to credit by the poor is crucial to improve the returns to economic activities, as it expands self-employment and promotes business and entrepreneurial activities, allows incomes to grow and provides a “safety net” to the poor who are vulnerable to income fluctuations.

Though there are many definitions for microfinance in literature, it can be deduced that microfinance is aimed to empower the poor or underprivileged with some form of finance, savings and entrepreneurial skills. It worth noting that microfinance is a broad term which is not only limited to the provision of small-scale loans but encompasses a myriad of activities. For an instance, Herath (2018) reveals that microfinance essentially includes ethical and moral values and social responsibility to eradicate global poverty as a noble mission. The term microfinance replaced microcredit in early 1990s (Helms, 2006). The main difference between microcredit and microfinance was explained by Elahi and Rahman (2006) as from their functionalities. The concept of microcredit only focuses on the provision of only small loans (finance) to the poor (with finance being the only missing link) but microfinance

engulfs a range of financial and non-financial services that include savings, insurance, money transfers, training and social engagements over and above credit (Mago, 2013; Elahi & Rahman, 2006)

Microfinance institutions

These are institutions which provide microfinance services to the community. The concept of microfinance is not a new phenomenon but dated back to the 15th century when pawn shops were established in Europe as alternatives to usurious moneylending (Mago, 2013). Since then, there were sequential developments unfolded in the industry which some include, the Irish loan fund system (1700s) in Ireland, financial cooperatives (1800s) in Germany, Indonesian's People's Credit Banks in 1895, saving and credit activities in Latin America (1900s), agricultural credits between 1950s and 1970s and the micro-credit concept in Bangladesh (Helms, 2006; Mago, 2013; Khandker, 1998; Yunus, 2003; Zeller & Meyer, 2002). However, the actual microfinance institutions evolved in the late 1990s as a special purpose vehicle for alleviating poverty from the poor (Kinde, 2012).

The history of microfinance institutions in literature pointed that these institutions were formed to help the poor who cannot access loans from formal finance institutions (Lopatta & Tchikov, 2016; Assefa, Hermes & Meesters, 2013). Contrary, Collins, Morduch, Rutherford and Ruthven (2009) posit that access to financial services is crucial for the poor as this helps them to smoothen their consumption, generate business opportunities and improve their inclusion in the formal economy in the long run. The benefits of financial inclusion for the poor are multiple and health for any economy. In light of this, Ledgerwood (1999) viewed MFIs as development organisations created to service the financial needs of unserved or underserved markets as a means of meeting development objectives such as to create employment, reduce poverty, help existing business grow or diversify their activities, empower women or other disadvantaged population groups, and encourage the development of new business. On the other hand, Basu, Blavy and Yulek (2004) added that MFIs effectively complement the formal banking sector in providing financial services to the poor. Thus, MFIs' main objective is to empower of the poor to alleviate poverty in societies (World Bank, 2000).

The idea of having MFIs was implemented when it was realised that there are some barriers to access for the poor. According to Elahi and Rahman (2006) the structural barriers facing the poor people to access finance from formal financial providers include information asymmetries, lack of collateral, high transaction costs, high risk and systematic market bias. Mago (2013) added lack of legal status, absence of authorised business location, small size of the business and riskiness of the business in case of Small to Medium Enterprises (SMEs) as compared to well established companies are some of the major risks cited by banks for not lending to SMEs. Moreso, banks argue that the geographical location of the poor is one of the drawbacks for banks to provide them with finance and other services. Thus, since most of the poor are in rural areas traditional banks felt that the costs of remote lending to rural areas are high hence raising sustainability questions (Mago, 2013). Furthermore, Hoff, Bravernman and Stiglitz (1993) also identified adverse selection and moral hazard as common rural sector problems. Where adverse

selection arises from selecting borrowers whose creditworthiness record is not known. While moral hazard arises when one individual greedily takes action to maximise his benefit at the expense of others.

MFIs providers range from being, government agencies, traditional banks, credit unions, cooperative society groups, commercial banks, Non-Governmental Organisations (NGOs) (Herath, 2018). Though these institutions provide loans to the marginalized populace not for profit or at lower interest rates, they must ensure sustainability. In support to this, Hermes and Hudon (2018) argued that though MFIs focus on reaching out to the poor, they must be financially sustainable. Literature has it that financial sustainability of microfinance institutions is a necessary condition for institutional sustainability (Hollis & Sweetman, 1998, Kinde, 2012). Dunford (2003) defines financial sustainability as the ability to keep on going in the provision of microfinance business without continued donor support. However, the major drawback was identified by Mago (2013) who hinted that most MFIs customers viewed loans from government agencies as gifts and will deliberately opt not to repay. Therefore, the owners or managers of these MFIs must be vigilant in managing their loan portfolios to minimise nonperforming loans or defaults.

Microfinance theories

This section is going to discuss the theoretical framework underlining the concept of microfinance.

The Grameen model

This model was introduced by Prof. Mohammed Yunus in Bangladesh in 1976 and is popularly known as the Grameen model. The model adopted the group lending methodology as a way of delivering financial services to the poor people. The idea was to counter to incapacity of the poor to provide physical collateral security. The model makes use of collective responsibility of the group to serve as collateral on the loan. Thus, model capitalised for what it called “social collateral” which involved a peer pressure strategy among group members since only 2 people were eligible for a per group of 5 at a time (Mago, 2013). The model achieved a great success because the bank realised an average loan recovery rate of more than 95% (Khandker, 1998). Which totally contradicts the conventional wisdom that the poor cannot be reliable customers in obtaining finance (Carr and Yi Tong, 2002; Helms, 2006).

Agency theory

The advocates of the agency theory assert that there is logical relationship between owners “principal” of the organisation and the management “agent” and this relationship is attributed to agency costs that arise from controlling and monitoring management (Daily, Dalton, & Cannella, 2003). Therefore, in most instances, the agency problem evolves as result of conflicting interests, thus it is difficult for the principal to verify what the agent is actually doing (Eisenhardt, 1989). More so, another problem might emanate when the two might have different risk perceptions. The problem here is that the principal and the agent may prefer different actions because of the different risk-taking attitudes (Christopher, 2010).

The agency theory is applicable in a variety of settings, ranging from macro level issues such as regulatory policy to micro level dyad phenomena such as blame, impression management, lying, and other expressions of self-interest (Bhagat & Bolton, 2008). In this study, the theory will assist in accessing if the risk attitudes of the microfinance institutions' management conform to their principal's. Thus, the principals, who are the donors, persist on pursuing the welfare mission, while the agents, MFIs management are in pursuit with profitability for the sake of the institutions' financial position (Jasmi, 2021).

Profit-incentives theory

The theory holds that MFIs that are commercially funded respond more to profit incentives, where they increase their revenues and decrease expenses in order to generate sufficient funds to sustain their operations (Abdullahi & Othman, 2021). Thus, MFIs must focus on increasing their revenues and decrease costs to maximise their profits. This was supported by Bayai and Ikhide (2016) and Bogan (2012) who posit that commercial funding enables MFIs to meet their microfinance obligation by raising cost consciousness, efficiency and outreach. However, this assertion directly contradicts the mission of donor-fund financed MFIs that may choose outreach over efficiency by serving clients with a higher delivery cost.

Trade-off theory

The theory was propounded by Myers in 1984. It describes that the decision-makers of the firm evaluate the cost and benefit of alternative leverage plans (Jasmi, 2021). That is, the management of the firm have to make decisions which are cost effective or might shun other investments if the costs attached to them are high. In a microfinance institution set up, the trade-off must be done on whether to pursue the “social goal” of financing the poor or to maintain financial sustainability.

Pecking-order theory

The theory was found by in 1961 by Donaldson. The Pecking-order theory encourages the use of internal funds from retained earnings and liquid asserts in financing investments that external sourcing. It further states that external funding must only be opted for if internal funds are insufficient to cover the investments. The reason is to avoid raising an external fund to cover the equity used for investment financing (Luigi & Sorin, 2009). Therefore, by applying this theory to microfinance institutions, they must finance their activities of financing the poor from their internal coffers, that is, from their profits or other liquid assets.

Life-cycle theory

Initially, the theory was developed by Raymond Vernon in the 1960s (Matanda & Chindara, 2021). The theory shows stages of development of the MFIs where transition into private capital takes place (Farrington & Abrams, 2002; de Sousa-Shields & Miamidian, 2004). Thus, according to the theory, most MFIs start as non-governmental organizations (NGOs) with a social vision, thereby obtaining funding from grants and donations (Bogan, 2012). Subsequently, Jasmi (2021) concur that in the early stage, MFIs will be focusing on their core mission of providing

social service primarily funded by grants and soft loans from donors and social investors. When the cycle moved to maturity, MFIs will be focusing on attracting private capital to fund their sources financial sustainability. At this stage, their loan portfolios are expected to have grown to a stage where they will sustain funding all MFI operations. Accordingly, Bayai and Ikhide (2016) described the growth stages as: start-up, expansion, consolidation, and integration.

2.2 Overview of the MFIs in Zimbabwe

In the Zimbabwean context, the idea of MFIs is traced from 1960s when the Roman Catholic missionaries thought and encourage local groups to form some saving schemes called Saving Development Movements (Raftopoulos & Lacoste, 2001; Bond, 1998). Accordingly, Adams and Raymond (2008) added that informal credit sources, such as family members and friends, moneylenders, commercial agents and group-based Rotating Savings and Credit Associations (ROSCAs) have been there for centuries to provide credits to the community. Zimbabwe is not an exception. However, the most common forms of credit in Zimbabwe are from informal groups like family members, friends, informal money lenders offering credit with exorbitant interest rates (Chimbadzo) (Mago, 2013).

Ngwenya and Ndlovu (2003) posits that the Zimbabwean microfinance sector remains underdeveloped and generally informal in Zimbabwe faced with myriad of challenges. Literature mentioned that some of the challenges MFIs in Zimbabwe faced includes high loan repayment default rate as people regard the loans as gifts from the government, hyperinflation, acute foreign currency shortages, high incidents of poverty and decline in real income and standards of living of the general populace (Mago, 2013).

2.2.1 NPLs and their impact on performance of MFIs

There is no standardised definition for non-performing loans as the definition might vary from country to country or company to company (Wood and Skinner, 2018). However, International Monetary Fund's (IMF) compilation guide on financial soundness indicators (2015) suggested that "a loan is non-performing when payments of interest and/or principal are past due by 90 days or more, or interest payments equal to 90 days or more have been capitalised, refinanced, or delayed. Similarly, Wood and Skinner (2018) concurred that a NPL is generally defined as a sum of borrowed money for which the debtor has not made the scheduled payments (principal and/or interest) for at least ninety days. It is clear from the definitions above that a loan is said to be non-performing if the debtor failed to pay the agreed interest and principal amount for at least ninety days. However, Mazreku, Morina, Misiri, Spiteri and Grima (2018) defined NPLs as financials agreements wherein the borrowing party did not pay the interest and/or instalments according to a structured schedule. Also, Anjom and Karim (2015) defined NPLs as those outstanding loans which no longer generate income for the bank and thus cease to be in accordance with the loan agreement. So, a loan can be classified as a NPL regardless of time but when the borrower started not honouring the terms of the loan agreements.

Non-performing loans negatively affects the profits of any financial institution as they reduce interest income and erode current profits and capital base through bad debts written off or provisions (Ombaba, 2013; Samir & Kamra, 2013). Similarly, World Bank (2021) highlighted that, non-performing loans (NPLs) erode the profitability and can threaten the solvency of banks, and when a sufficiently large volume of loans is affected, they can potentially threaten financial sector stability. Therefore, NPLs can threaten the existence and sustainability of MFIs if they are not controlled. Hughes and Mester (1993) argued that if a bank fails to invest resources in the initial screening and monitoring of borrowers with the anticipation of reducing monitoring and vetting costs, the resultant effect will be high NPLs which will then require more monitoring efforts, leading to high monitoring costs.

Moreso, NPLs may hinder the development of the microfinance sector since there will be no money to lend to new clients. This will also lead to the dependency syndrome as identified by Assefa et al. (2013) who disclosed that microlenders can often only survive because they receive financial support as subsidies from governments, development agencies and nongovernmental organizations, which stimulates the strong growth in the number of MFIs and increases competition between them. Furthermore, Kingu, Macha and Gwahula (2018) used panel data methods to examine impact of NPL on bank profitability. The study found that an increase in non-performing loans is associated with a decrease in ROA.

2.2.2 Factors affecting credit exposures of MFIs

Every business be it profit making or nonprofit is faced with an imminent risk which can derail its sustainability if failed to be contained properly. Literature contain that NPLs are influenced by three major factors namely, macroeconomic, firm specific and financial factors (Mazreku et al., 2018; Mago, 2013; Fofack, 2005; Kingu, Macha & Gwahula, 2018). On the other hand, Anjom & Karim (2016) referred these factors as terms of credit, MFI size risk preferences and macroeconomic.

Macroeconomic factors

These are factors which the organisation does not have control on and in most cases are different from country to country or region to region. Some of these indicators include gross domestic product (GDP), inflation, real interest rate and unemployment rate (Woods & Skinner, 2018).

Gross Domestic Product (GDP)

GDP can be defined as the change total market value of goods or services produced by the economy of a certain country, as well as total income earned by people living in that country (Mazreku et al., 2018). Thus, a positive change in GDP means the economy is performing well and citizens are in a position to remain with excess savings which can be used to service their debts or loans. Therefore, a positive change is favourable while a negative change is unfavourable since will result in the growth of NPLs in an economy.

Inflation

Inflation also impacts on the performance of loan portfolios for NFIs. Thus, growing inflation may have a negative impact on non-performing loans since higher rates of inflation cripples the loan payment capacity of borrowers. Additionally, literature concur that during inflationary periods the real value of payments that borrower has to settle their obligations to credit institutions falls (Kurumi & Bushpepa, 2017). Thus, jeopardising organisations from attaining proper returns on investments. Additionally, Anjom and Karim (2016) added that high rates in inflation make it difficult for customers to pay their outstanding loan portfolios because the cost of capital will be high leading to positive relationship between inflation rate and non-performing loan.

Rate of unemployment

Higher rates of unemployment negatively affect the performance of MFIs and banking business because their clients will be unemployed. Thus, adversely the loan portfolios for MFIs shrink since the citizens will be hesitant to access and service their outstanding debts due to lack of steady revenue streams. Therefore, a higher unemployment rate implies that more people will have difficulties to pay back their debts, increasing NPLs (Mazreku et al., 2018).

2.2.3 Microfinance Institutions' specific factors

Capital Adequacy Ratio (CAR)

It is the ratio of capital to the sum of a risk-weighted firm's assets (Kingu, 2012). It measures the solvency of a firm or the level at which an organisation can engross risk (Wood and Skinner, 2018). A study by Jameel (2014) which explain and determine factors which affect NPLs found a negative association between capital adequacy ratio, GDP growth rate, credit deposit ratio and maturity period of loans and NPLs. Thus, a favourable CAR means an institution is cushioned from the negative impacts caused by insolvency or being illiquid. To add on, Demirguc-Kunt and Huizinga (1999) added that banks with high levels of CAR may pursue opportunities more aggressively, which means increased risk taking leading to riskier credit portfolios.

Return on equity/ assets

This shows the firm's efficiency generating its income by using equity and assets (Anjom & Karim, 2016). Wood and Skinner (2018) supported that the return on assets indicates the ability of the management to generate profits by utilising the available assets of the bank. However, Ahmah and Bashir (2013) argued that in making an investment decision basing on ROA, extra caution needs to be exercised because if forecasting is incorrect, it means returns on investment will not be in accordance with investors' expectations, resulting in inability of investors to repay their loans and, hence, increases in non-performing loans in the future.

Bad management hypothesis

The claim is that bank management tends to inject more resources into managing and monitoring bad loans, in response to the increase in NPLs. This had a long run effect of increasing operating expenses over the increase in

interest income, resulting to higher cost to-income ratio (Berger & De Young,1997). Wood and Skinner (2018) added that bad management hypothesis is a result of inadequacy monitoring and controlling of operating expenses, and lack of adequate loan underwriting, monitoring and control. Furthermore, they hinted those managers may (i) have poor skills in credit scoring and, therefore, choose a relatively high proportion of loans with low or negative net present values, (ii) be less than fully competent in appraising the value of collateral pledged against the loans, and (iii) have difficulty monitoring and controlling the borrowers after loans are issued to assure that covenants are obeyed (Wood & Skinner, 2018).

Bad luck hypothesis

Under this hypothesis an adverse external factor suddenly transpired (for example, closure of the mine) after the institution had forwarded loans to the clients. The resultant effect is the sharp increase of NPLs due to lack of funds from the clients to service their debts. Therefore, the loans from affected client become outstanding and the bank begins to expend additional managerial effort and expense dealing with these problem loans (Wood & Skinner, 2018).

2.2.4 Empirical evidence

Zamore, Beisland and Mersland (2021) examined the relationship between non-performing loans (NPLs) and cost efficiency of microfinance institutions (MFIs) using a large global sample of MFIs. They find that the relationship between NPLs and inefficiency is nonlinear(U-shaped), contrary to the evidence for a positive linear relationship previously reported in commercial banking studies. Thus, they find that an initial increase in NPLs reduces inefficiency while a subsequent increase worsens it.

A study by Ndun'gu (2014) titled, "Factors influencing non-performing loans of microfinance institutions in Kenya", concluded that institutional characteristics contribute most to the non-performing loans of microfinance institutions in Kenya followed by Macroeconomic variables and finally Customer characteristics.

Kingu et al. (2018) found that an increase in non-performing loans is associated with a decrease in ROA. Empirical results of this study confirms that return on equity, return on assets, capital adequacy ratio and loan to deposit ratio are significant determinants of non-performing loans, while the macroeconomic variables exerting significant influence are GDP growth, unemployment and interest rate. Studies on the effects of regulation and legal status on outreach and performance of MFIs were also undertaken. In their studies, Mersland and Strom (2009) and Hartarska and Nadolnvak (2007) both conclude that regulation does not affect outreach and financial performance. On the other hand,

Various studies were also undertaken to access the relationship between NPLs and macro-economic factors for instance real GDP, unemployment, inflation, loan interest rate and remittances. For instance, Turan (2016) studied the effects of macroeconomic indicators on NPLs in the Albanian banking sector between the years 2007 and 2014. The study finds that NPLs are negatively correlated with remittances and the unemployment rate.

Also, Anjom and Karim (2016) performed an empirical analysis of the non-performing loans of a SAARC country such as Bangladesh and investigated the response of non-performing loans to macroeconomic with bank specific factors with multiple regression and correlation matrix analysis aiming to find out the most significant variables affecting non-performing loan as well as correlation among factors that may have an Influence on non-performing loans. The study found that NPLs had a negative relationship on with inflation, public debt as a percentage of GDP, return on equity, return on assets, total loan to total asset ratio, total loan to total deposit ratio and a non-interest income ratio. Similarly, in his study, Klein (2013) found that NPLs responded to macroeconomic conditions, such as unemployment, GDP growth and inflations and highlights that the high NPLs in these countries affect the economic recovery negatively.

Another investigation to the main causes of NPLs in Sub-Saharan African region was done in 1990s by Fofack (2005). The researcher applied the econometric model analysis and disclosed that the countries in this region had plenty NPLs and a very high loan risk portfolios influenced by macroeconomic factors volatility.

Brownbridge (1998) explored the causes of non-performing loans in local banks domiciled in Kenya, Uganda, Zambia and Nigeria between 1985-1994. The finding of this study unearthed insider lending as the main determinant of NPLs. Thus, the study revealed three forces of insider lending namely, over concentration in ownership, political pressure and under capitalisation. Also, another important cause of non-performing loans noted in this study was the interest rate charged to borrowers operating in the high-risk segment of the credit market.

3.0 Research Methodology

An explorative qualitative research design was adopted in this research. An exploratory qualitative design is conducted when one needs to have an in depth understanding or characteristics of the research problem or when there are few or no earlier studies and when studying the phenomena within its context to refer to or rely upon to predict an outcome (Laurett, Paço & Mainardes, 2021; Creswell & Creswell, 2017; Gil, 1991). In this research study on the impact of NPLs on growth and development of the Microfinance sector in Zimbabwe, researchers begin by reviewing all literature related to the topic on google scholar, science direct, emerald hills, google search. Literature was reviewed from books, journal articles, academic scripts, essays, etc.

Abstract filtering approach was initially used to select more relevant articles to the topic. Further screening was performed through intensive reading and analysis of those chosen journals and scripts. Electronically distributed questionnaires were utilised in gathering information from the respondents. In totality, 125 questionnaires were sent to the respondents from 20 microfinance institutions which were purposively selected as the study sample. The results presentation was done using tables, graphs and pie charts for clear visibility and interpretation. Statistical analysis of the results was done using linear regression analysis. High ethical considerations were respected, and information confidentiality was guaranteed to the respondents.

4. Results and Discussions

The paper examined the relationship between non-performing loans (NPLs) and cost efficiency of microfinance institutions (MFIs) in Zimbabwe in the period 2010-2021. The study was motivated by the fact that while there is a significant body of banking literature on the aforesaid relationship, studies based on microfinance data are, very few or non-existent. This is an unfortunate development since high operating costs are the major impediment constraining the performance of the microfinance industry. Most MFIs are too concerned about loan repayment performance and not more about operational costs incurred in issuing credit to borrowers.

The study realizes that focusing on access to capital and not its cost price results in huge operating costs in the microfinance industry of most emerging economies today (Mersland & Urgeghe, 2013; Caudill, Gropper, & Hartarska, 2009). Most MFIs paid very little attention to their cost efficiency because the cost of lending can easily be passed on to borrowers, who are normally profitable and willing to pay high interest on borrowed funds. The study also finds that MFIs need to strike a balance between cost efficiency and risk to be able to grow and develop. MFIs operating with too low credit risk could streamline their selection, monitoring, and collection activities or increase credit risk by relaxing efforts devoted to these activities (Kwan & Eisenbeis, 1996). In this respect they can serve more vulnerable clients, thereby enhance their social outreach and remain operationally sustainable. MFIs operating high NPLs can benefit from use of strict screening, monitoring, and collection processes and procedures. The only challenge they will face is how to employ strict client selection without screening out the poorest and vulnerable clients (Hartarska, Shen, & Mersland, 2012).

The study has realized that there are many factors such as economies of scale and scope, operating environment, learning and workers' experiences, and technology that influence the operating costs of MFIs in economies of the world (Caudill, Gropper, & Hartarska, 2009). Economies of scale exist in the microfinance industry and are costs concerned with the link between average cost per unit and the number of units produced by an organization. The ability of a firm to produce goods in large volumes is associated with cost savings because lower costs per unit are achieved (Hartarska, Shen, & Mersland, 2013 and Kwan & Eisenbeis, 1997).

Economies of scope are achieved when a financial institution uses customer information and existing infrastructure to generate new revenues without incurring additional operating costs (Petersen & Rajan, 1995). It is also observed that MFIs achieve economies of scope when they offer their clients loans and saving services at the same time. The learning curve theory postulates that MFIs achieve cost efficiency when they repeat their processes and learn from the processes each time (Caudill, Gropper, & Hartarska, 2009). MFIs can be cost-effective through introduction of new technologies in production or lending activities. For instance it was observed that, new microfinance technologies such as internet and mobile banking and online crowdfunding help banking institutions to reduce costs and increase outreach (Cull, Demirgüç-Kunt, & Morduch, 2009). Furthermore, it has been realized that the costs of financial intermediation can be influenced by banking regulation and supervision (Demirguc-Kunt, Laeven, &

Levine, 2004). MFIs like banks, are regulated by banking authorities and pass all the costs associated with such regulation to their clients in the form of higher processing and lending rates (Ledgerwood, 1999 and Hardy et al, 2003).

The study also discovered that relationship banking influences the cost of lending arrangements between MFIs and borrowers. When MFIs create and maintain ties with their customers over a long duration, they incur huge costs in gathering their private or “soft” information (Diamond, 1984). In other words, MFIs incur client screening and monitoring costs which are normally high in the short run. However, costs such as time intermediation costs decline because of information reusability and lower NPLs. The reduction in intermediation costs translate into lower screening and monitoring costs in the medium to long run period (Bharath, Dahiya, Saunders, & Srinivasan, 2011 & Boot, 2000).

The study notes that all banks that fail to invest resources in the initial screening and monitoring of borrowers, face lower operating costs in the short run together with higher NPLs in the long run (Hughes & Mester, 1993). The high NPLs in MFIs call for more monitoring and evaluation efforts, and hence high monitoring costs. It was also discovered that MFIs are influenced by market or economic downturns, which are beyond the borrowers' control. Economy-wide factors can cause increase in NPLs leading to additional costs for the lending institutions. These additional costs are intimately related to factors such as monitoring efforts, renegotiations of credit contract terms, and the efforts of senior management of lending institutions to control losses on loans (Berger & DeYoung, 1997; Mersland, 2009).

The paper establishes a positive or direct relationship between operating costs and NPLs in general, banking studies (Fiordelisi et al., 2011 and Kwan & Eisenbeis, 1996). The study realised that inefficient banks and MFIs are associated with higher operating costs and NPLs. The study also notes that there is no empirical evidence on the connection between efficiency and NPLs in the microfinance literature, a gap this study seeks to close. This is because the high bank operating costs constrain the overall sustainability of the micro-finance industry (Cull et al., 2009). Furthermore, the study postulates that MFIs also charge the high interest rates on credit which impede their ability to benefit their target customers, particularly the poorest potential clients (Mersland & Strøm, 2009). In other words, it is the high operating costs of MFIs which are the main obstacle in the industry's need to grow and develop. These costs are the main reason for much of the criticism economic players have directed at the microfinance industry over time (Rosenberg et al, 2009).

It was found that only borrowers who have access to international loans from impact investors realized loans at very low operating costs. The use of subsidies and low interest on deposits by impact investors resulted in very low finance costs and loan losses of MFIs (Mersland & Strøm, 2010 and Hudon & Traca, 2011). Loan losses in developed countries for instance are very low in the micro-finance sector but it is the operating costs, which are the main determinant of lending rates and major cause of concern in microfinance (Cull et al, 2009).

According to Mersland & Strøm (2014), operating costs in most MFIs worldwide represent about 61% of financial revenue, 17% of funding costs, and 7% is loan loss provisions only, leaving a profit margin of 15%. This implies that by reducing operating costs, lending rates are significantly reduced, and this can improve MFIs' profitability level, paving the way for a more sustainable micro-finance industry. High operating costs make it very unprofitable to offer small loans to the target market. Hence reduction of operating costs could facilitate MFIs' outreach to poorer clients of the community and society at large (Mersland & Strøm, 2010).

The study postulates that too much focus on repayment of microcredit is known for driving away the poorest segments of the vulnerable populations of a society, whom MFIs argue are their target clients. According to Pearlman (2012) strict repayment requirements and penalties in the microfinance industry, makes the very poor people of society fail to have tendency to use microcredit. This finding augments Amin et al (2003) who say that overemphasis on credit risk has implications on both cost efficiency and the outreach of MFIs. Both the sustainability and societal objectives of MFIs are seriously affected by too much focus on NPLs.

Microfinance can employ innovations to overcome high NPLs rates, lack of access to credit for the poor people (particularly women, children and the poor) and challenges associated with screening borrowers without collateral security (Hulme & Mosley, 1996). Since its inception in the 1960s-70s, microfinance has been appraised worldwide for achieving its main goal of financial inclusion (Biosca, Lenton, & Mosley, 2014; Cull et al., 2009). In economies where microfinance comes with cheaper costs, it has been found to be a sustainable business model where customers can borrow and generally fairly service their loans (Petersen & Rajan, 1995). However, the study also discovered that innovations and technological changes over time are very costly for MFIs to adopt and implement. However, Hermes et al (2011) and Diamond (1991) note that there is a strong positive and long-term relationship between technological changes and operating costs in MFIs. Hence the need for these institutions to adopt and implement technologies in order to improve their efficiency, reduce operating costs and improve performance of their credit exposures. Further research notes that the GDP per capita has a positive link to operating costs. It has been observed that MFIs operating in more developed economies have higher operating costs than those in underdeveloped states, a finding which is consistent with that of Grigorian & Manole (2002).

To circumvent screening and repayment problems, new loan products for instance lending with joint liability and short-term step-wise loans (also called progressive lending) are pertinent for introduction to the microfinance industry (Armendáriz & Morduch, 2010; Hulme & Mosley, 1996). These financial innovations improved have the ability to improve repayment rates of credit loans substantially. Today, the microfinance industry in most developed nations is reporting lower NPLs rates than those characterizing most traditional banking markets (Rosenberg et al, 2009; Sievers & Vandenberg, 2007). The study discovered that average repayment rates in the microfinance industry in developing countries is around 97% (Cull et al, 2009). This is a very healthy level of performance on uncollateralized loans issued to the economically poor people operating businesses in informal markets in emerging economies.

The above finding is consistent with the case for loans issued to small-to-medium (SMEs) whose performance far outweighs that of poor and vulnerable individuals of the society, particularly those that are not salaried. In other words SMEs in the informal sector are normally profitable (Armendáriz & Morduch, 2010) and therefore very willing to pay high interests on loans (Lucas, 1990). Because of the high demand for capital of micro-businesses, MFIs focus more on lending than the expense of their cost efficiency which they can pass on to the borrowers. When high cost ratios obtain in the microfinance sector these can partly be attributed to the small loans issued (Helms & Reille, 2004) and the poor institutional frameworks in which the MFIs operate.

Berger and DeYoung (1997) note that NPLs of MFIs increase exogenously (due to external shocks) with increases in their operating costs. This is in line with the finding of our study that operating costs of MFIs increase due to poor management and business practices which eventually lead to higher NPLs. Inefficient banks are found to be more vulnerable to risk-taking behaviours compared to efficient banks. Similarly, Kwan and Eisenbeis (1996) and Berger and DeYoung (1997) argue that banks that avoid borrower selection costs in the name of cost efficiency usually end up having higher NPLs and operating costs in the long run. When MFIs allocate small amounts of resources to the screening and selection of loan applicants, low-quality loans are made, which translate into NPLs in the future. Williams (2004) confirms that all poorly managed commercial banks produce low-quality loans, which culminate into higher NPLs.

MFIs may serve different groups of clients such as rural or urban clients, others or both urban and rural clients (Mersland & Strøm, 2009). In this respect operating costs and NPLs may vary among MFIs located in different geographical locations. It was also noted that some MFIs may look good and efficient today to attract financing from investors and donors, but this strategy could have long-term consequences on both asset quality and monitoring costs in the medium to long-term. Some MFIs have been found to be more interested in group lending compared to individual lending to reduce credit risk. Therefore, group lending is overall believed to be correlated with lower costs and lower risk. This then implies that operating costs and NPLs may also differ between group and individual-lending MFIs (Armendáriz & Morduch, 2010). In most developed economies MFIs are incorporated as either shareholder-owned (banks and non-bank financial institutions) or non-profit organizations (non-governmental organizations, NGOs) ((Mersland & Strøm, 2009). Owners of such MFIs normally have incentives to monitor the operations of their institutions to ensure that all excessive credit risks are not assumed by management.

The study observes that excessive credit risk-taking is more likely in MFIs that have no owners than in shareholder MFIs (Galema, Lensink, and Mersland (2012). However, it has also been realized that conversely shareholder-owned MFIs are more cost inefficient compared to non-shareholder-owned MFIs. This finding deviates from the pertinent debate that shareholder-owned firms are more operationally efficient than non-shareholder-owned MFIs (D'Espallier, Goedecke, Hudon, & Mersland, 2017). It was also realized that both non-bank and NGO MFIs significantly and positively faced higher cost inefficiencies compared to co-operative MFIs. This overall implies

that shareholder-owned MFIs are probably not different from non-shareholder MFIs measured in terms of cost efficiency. In other words, this could point to the fact that both groups of MFIs could probably be applying similar business models in their operations. Group-lending has been found to result in reduction of operating inefficiency in MFIs compared to individual-lending. It was also discovered that MFIs that focus only on urban clients are more efficient and effective in their operations compared to those serving both rural and urban clients (Ghatak & Guinnane, 1999). We also note that the size of the MFI is responsible for increases in cost inefficiency (Hartarska & Mersland, 2012).

5. Conclusions and Recommendations

Based on the major findings of the study above, we come up with the following conclusions and recommendations:

- Zimbabwe is operates a shallow, over-regulated and repressed or administered financial system which is characterized by high transaction costs and ever increasing NPLs. This is a sad development which has culminated into very exorbitant interest and exchange rates being applied to credit facilities of MFIs that are beyond the capacity of most borrowers. The irregular loaning by the banks, overuse of swipe and Eco cash in lending business by MFIs are some of the factors that raise operating costs leading to accumulation of NPLs in the sector. The government of Zimbabwe should make the Central Bank independent so that it can concentrate on its mandate to improve efficiency financial performance of banks and MFIs.
- The study concludes that inadequate capital, poor regulation and supervision practices in Zimbabwe are some of the major causes of high operating costs and in MFIs. High operating costs negatively impact on a bank or MFI's financial soundness, asset accumulation and ability to invest leading to increased costs associated with NPLs. Therefore, monetary authorities should stick to their mandate so that they can regularly and closely monitor the levels of NPLs in MFIs with the aim to assist them in loan provisioning and doing away with a repressed financial system. The Central Bank that is the Reserve Bank of Zimbabwe (RBZ) should continuously check on adherence of MFIs to their mandate to be able to uplift the welfare of the poor and vulnerable people of the society. RBZ should do the same to banks to assist them in meeting their minimum capital requirements and managing the riskiness of their loan facilities.
- High operating costs such as exorbitant exchange rates, loan processing fees, taxes and interest rates weaken the levels of NPLs in MFIs leading to weak health bank and MFI credit supply, High operating costs and NPLs retard MFIs' ability to respond to countercyclical capital buffers due to asymmetric information which creates arbitrage opportunities in the economy. In Zimbabwe arbitrage opportunities have led to the creation of the black or parallel market which is the sole provider of the much-needed foreign currency, and hence the high costs of transacting business in MFIs, of late. The RBZ is advised to operate very binding financial regulations and supervision frameworks including loan provisions to be able to hedge banks and MFIs against NPLs.

- MFIs should come up with sufficient lending standards and credit risk management systems to reduce the risks of their loans becoming non-performing over time. This is because loan repayment delinquencies increase when there are no measures taken by banks and MFIs to control them. However, banks need to employ vigilance to ensure that such financial flexibility does not translate into support for non-viable borrowers and deferment of the classification of MFI loans as non-performing or delinquent. Banks should minimize the risk of loans becoming non-performing through lending to creditworthy customers and investing in reducing stocks of NPLs as and when they arise. They can also book sufficient buffer provisions early enough to ensure that all projected loan losses are properly covered.
- The study also concludes that banks and MFIs can reduce both operating costs and NPLs by taking legal action against non-performing borrowers operating in secondary financial markets. By taking legal action against highly indebted borrowers, banks and MFIs may incur additional costs but these could be outweighed by recoveries from the NPLs. Such action against borrowers is pertinent when available legal tools and mechanisms are not sufficient or do not allow for timely resolution of bad or delinquent loans. In underdeveloped economies such as Zimbabwe MFIs can use secondary markets for transferring the credit risk of holding NPLs to non-banking investors. This approach becomes more important in the context of the coronavirus crisis and the expected increase in the level of NPLs particularly in the micro-finance industry in underdeveloped economies such as Zimbabwe.
- The soundness and effectiveness of the financial system of a country is just as good as the performance of its affiliates such as banks and MFIs. Repressed central banking systems such as the RBZ do not function independent of the government, a development that has direct impact on its inability to pursue its mandate rigorously. Hence the RBZ cannot efficiently and effectively supervise banks and MFIs nor create buffers for their loan loss provisioning, leading to high operating costs and worsening NPL positions. Central Banks of all countries of the world should thrive to put in place efficient and effective banking regulation and supervision frameworks, such as insolvency reforms, debt recovery frameworks, and secondary markets for use in managing NPLs in banks and MFIs.
- The Zimbabwean financial system is far from being efficient as it is mainly affected by rampant corruption, insider-lending, asymmetric information, and fraud, parallel and informal markets. Most of these illegal activities are caused by people's lack of confidence in the government and non-independent RBZ which continue to scare potential investors or force some of the banks and MFIs' existing shareholders to crowd out. This development creates acute capital shortages in the economy which leads to both banks and MFIs charging very high interest, inflation and exchange rates on potential borrowers. All these charges erode the ability of borrowers to meet their loan obligations leading to accumulation of NPLs and retardation in investment in the economy. The RBZ is advised to lead by example and be transparent, ethical and accountable if performance of banks and MFIs in Zimbabwe is to be directed towards growth and sustainability.

- The use of a surrogate currencies such as bonds and bearers' checks in Zimbabwe has massively shifted the purchasing power from banks, MFIs and the general public to the government elite. This has translated into heavy taxes on citizens, high lending costs and charges on account withdrawals charged by banks and absence of incentives for depositors and savers. Most Zimbabwean banks and MFIs have deviated from their mandate to putting more emphasis on short-term products that attract very high exchange rates and interest charges at the expense of service provision to borrowers and other clients. The controversial bond note currency, which cannot be traded in international markets has created serious distortions, high operating costs leading to accumulation of loan portfolios of MFIs over time. These currency distortions coupled with fixed exchange against ever rising rates in the black market, acute shortages of foreign currency, high unemployment and inflationary rates, have seriously constrained the performance of credit facilities issued by banks and MFIs over the period under review. The government and RBZ are advised to restore confidence in the banking and micro-finance sectors if they are to change the fortunes and uncertainty in both money and capital markets towards reduction of operating costs and NPLs and improved financial performance.

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