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DETERMINANTS OF NON-PERFORMING LOANS AT KENNETH CONSULTANTS INTERNATIONAL MANAGEMENT CONSULTANTS HARARE, ZIMBABWE

BY

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A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS OF THE DEGREE OF MASTERS IN BUSINESS ADMINISTRATION IN THE COLLEGE OF BUSINESS, PEACE, LEADERSHIP AND GOVERNANCE
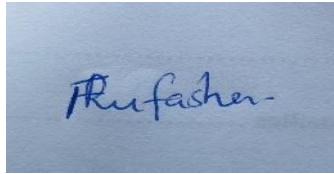
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Abstract

Lending money is the main traditional function of Microfinance Institutions, and this aspect of lending to date. However, loan defaults among Micro Finances Institutions remain high leading to financial distress of the Micro Finances Institutions which may eventually cause collapse. The study researched whether Interest rates, Information Technology Systems, credit evaluation and collection policy have an effect on loan repayment and how best to manage them so as to reduce loan defaults. Thus, the study sought to assess the ways of managing non-performing loans in Zimbabwe using Kenneth Consultants International Management Consultants as a case study. This study adopted a mixed methods research design with a population of 167 credit controllers and Loans officers within Kenneth Consultants International Management Consultants and a sample size of 69. The researcher used stratified sampling and within the strata a simple random sampling procedure was used. Secondary data was collected on all the mentioned variables which are interest rates, Information Technology Systems, and credit evaluation and collection policy used by Kenneth Consultants International Management Consultants to see how they affect non-performing loans. The data which was collected was analyzed using both descriptive and inferential statistics from multiple linear regression analysis using a Statistical Package for the Social Sciences (SPSS) software package. The findings were presented in tables and figures. The findings were presented in tables and figures. The study's findings established strong, positive and good linear relationships between Non-performing loans and Information Technology Systems, interest rate, Collection Policy and a weak position relationship between Non-performing loans and Credit Evaluation. Strong, positive and good linear relationships between Non-Performing Loans and Information Technology Systems, interest rate, and Collection Policy were also adduced. The study concluded that there is a positive relationship between Non-performing loans and Information Technology Systems, interest rate, Collection Policy and Credit Evaluation. The study recommended that there is need for microfinance institutions to apply better Information Technology systems for efficiency and accuracy to reduce non-performing loans, also to apply efficient and effective credit risk management that will ensure that loans are matched with ability to repay and minimize on their interest rate spread so as to reduce loan default.

Key words: Non-performing loans, Information Technology Systems, interest rate, Collection Policy and Credit Evaluation.

Declaration

I declare that this dissertation is my original work except where sources have been cited and acknowledged. The work has never been submitted, nor will it ever be submitted to another university for the award of a degree.

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Dedication

I dedicate this to my grandparents Mr. and Mrs. Kambanje.

To my beloved family for the social, financial support and motivation for the entire two years at Africa University

I want to thank you!

List of Acronyms and Abbreviations

AMC	Asset Management Companies
ARC	Asset Reconstruction Companies
BAZ	Bankers Association of Zimbabwe
CAR	Capital Adequacy Ratio
CB	Central Bank
FCB	Financial Clearing Bureau
GDP	Gross Domestic Product
IT	Information Technology
KCI	Kenneth Consultants International
MFI	Micro Finance Institution
MPS	Monetary Policy Statement
NIM	Net Interest Margin
NPLs	Non-Performing Loans
NGO	Non-governmental Organization
PESTLE	Political, Economic, Social, Technological, Legal and Environmental
RBZ	Reserve Bank of Zimbabwe
SACCOS	Savings and Credit Co-Operative Societies
SPSS	Statistical Package for Social Sciences
SPV	Special Purpose Vehicle
ZEPARU	Zimbabwe Economic Policy Analysis Research Unit

Definition of key terms

Non-Performing Loans: accounts whose principal and or interest remains unpaid for 90 days or more after the due date (Sheefeni, 2015).

Special mention loan: Short term loans past due for 30 days or more, but less than 90 days and medium- and long-term loans past due for 6 month or more, but less than 12 months (Sheefeni, 2015).

Doubtful loans: Short term loan past due for 280 days or more, but less than 360 days and medium- and long-term loans past due for18 months or more, but less than 3 years (Sheefeni, 2015).

Information Technology Systems: All electronic data processing, information, recordkeeping, communications, telecommunications, account management, inventory management and other computer systems (including all computer programs, software, databases, firmware, hardware and related documentation) and Internet websites (Kwambai & Wandera, 2013).

Credit evaluation: is the process a business or an individual must go through to become eligible for a loan or to pay for goods and services over an extended period. It also refers to the process businesses or lenders undertake when evaluating a request for credit (Moti et al, 2012).

Interest rates: the proportion of a loan that is charged as interest to the borrower, typically expressed as an annual percentage of the loan outstanding (Benedetta *et al.,* 2015).

Collection policy: is the set of procedures a company uses to ensure payment of accounts receivables (Kanyuru, 2011).

Table of Contents

List of Tables.

List of Figures

List of Appendices

CHAPTER 1: INTRODUCTION

1.1 Introduction

This chapter provides an overview of the aspects to be covered in the research that is it is the base/foundation of the study. The chapter aims to highlight the research background, study objectives, problem statement, research questions, the importance of the study that is study significance, scope of the study which is relevant to the topic under research that is, Management of Non-Performing loans at K.C.I Management Consultants.

The chapter further shows the assumptions of the study, delimitations and limitations, and then shows the layout of the study briefly describing the whole study from chapter 2 to chapter 5.

1.2 Background

The emergence of microfinance as a support to mainstream financial services provision has become indeed a sigh of great relief for most people and institutions that are often unable to partake in the formal financial sector even though its (microfinance) advent has also instigated some challenges. Microfinance, according to Arhin, Issifu, Akyeampong & Opoku (2019), is the provision of financial services to low- income, and very poor self-employed people". These financial services according to Arko (2012), generally include savings and credit but can also include other financial services such as insurance and payment services. Azeem & Amara (2014) define microfinance as the attempt to improve access to small deposits and small loans for poor households neglected by banks. Probably, the most holistic definition for micro finance is the one by Wrenn cited by Aesa Network (2018). According to Aesa Network (2018), microfinance

involves the provision of financial services such as savings, loans and insurance to poor people living in both urban and rural settings who are unable to obtain such services from the formal financial sector. Wrenn (2018) further noted that, though the terms microfinance and microcredit are often used interchangeably, there exist a difference between them, Arhin *et al*., (2019), states that, microcredit refers to small loans, whereas microfinance is appropriate where NGOs and MFI supplement the loans with other financial services (savings, insurance, etc.). Therefore, microcredit is a component of microfinance in that it involves providing credit to the poor, but microfinance also involves additional non-credit financial services such as savings, insurance, pensions and payment services. According to the International Monetary Fund [IMF] (2016), A loan is nonperforming when payments of interest and principal are past due by 90 days or more, or at least 90 days of interest payments have been capitalized, refinanced or delayed by agreement, or payments are less than 90 days overdue. A non-performing loan, or NPL, is a loan that is in default or close to being in default. Many loans become non-performing after being in default for 90 days, but this can depend on the contract terms.

According to the Arhin et al., (2019) globally, microfinance has built a solid track record as a critical tool in the fight against poverty and has entered the financial mainstream. The World Bank Group further stated that rapid growth of the industry over the past 15 years has reached approximately 130 million clients according to recent estimates. Yet, microfinance still reaches less than 20 percent of its potential market among the world's three billion or more poor. The evolution of the industry has been driven by many factors which include the transformation of microfinance providers, the sizable supply

gap for basic financial services, the expansion of funding sources supporting the industry and the use of technology. As the industry has developed, there has been a shift from specialized Non-Governmental Organizations (NGOs) to an increasing number of regulated and licensed MFIs which stress that sustainability and impact go hand in hand. Furthermore, The World Bank Group is working with private microfinance institutions and stakeholders to incorporate responsible finance practices into all aspects of business operations. When done responsibly, private microfinance can have significant development impact and improve people's lives. The stability of the financial sector has become the basis of most macroeconomic policy owing to the recent global financial crisis (Vogiazas & Nikolaidou, 2011). Financial institutions are vulnerable to great risk related to nonperforming loans. Research in other countries show that most of microfinance institution failures are directed to nonperforming loans (Munialo, 2011). According to Brealey (2010) in countries like Nigeria, Tunisia, Morocco, Egypt and Algeria have got nonperforming loan rate of 15%, experienced difficulties in their financial performance due to bad loans.

Louzis *et al*., (2012) have focused their study on the effect of bank-specific characteristics such as the quality of management, policy choices, and size and market power on problem loans. A case in point attributed to bank specific factors was evidenced in Greece, where the country's financial sector took a downturn in the financial crunch of 2007. This was due to inefficient management of advancing loans without regard to credibility of borrowers and compromising regulations.

Non-Performing Loans (NPLs) has slowed the reform process in Viet Nam and hampered the further expansion of the economy. The actual scale of the Non-Performing Loan problem in China's banking system is still attracting much attention. A few years back, most estimates put the NPL level within the Chinese system, both carved out and remaining, at around 40% of the total loans outstanding in the late 2000s (Ma *et al.,* 2016)

In the East African region, a study on microfinance loans default in Kenya revealed that most of the small loans were defaulted due to non-supervision of the borrowers from MFIs, inadequate training of borrowers before they receive loans, and spending of received loans by borrowers in projects other than agreed ones (Munialo, 2011).

Moti et al, (2012) revealed that poor credits risk management practices influence the credits default risks for rural SACCOS in Tanzania. Poor portfolio management also influences negatively the profitability of banks, SACCOS or MFIs. Thus, in order to increase their profitability, the rural SACCOS require effective loan portfolio management strategies. Other factors, which influence effective loan portfolio management, include management strategies, MFIs or banks' staff competencies, choice of lending methodology and management information system. There are non-performing loans, which resulted from clients' default, which in turn come about from lack of follow-up, market problems, environmental problems, credit policy of the Bank, and so forth.

The high levels of nonperforming loans are also being experienced in Zimbabwe for the past decade as shown by the figure 1 below
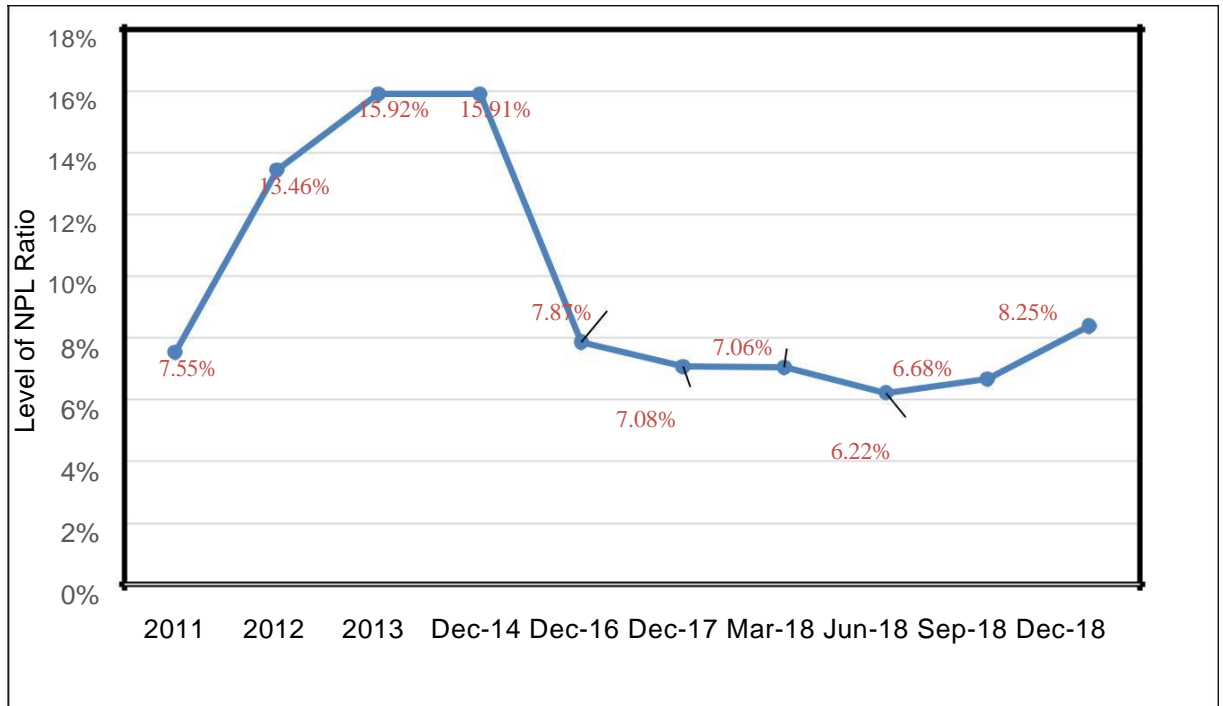
Figure 1.1: Trend of Non-Performing Loans in Zimbabwe Financial Sector (RBZ, 2019)

RBZ (2019) highlighted that level of nonperforming loans 7.08% in 2016 to 8.25% in December 2018. Portfolio at Risk above 5% should be a cause of concern (RBZ, 2019).

1.2.1 K.C. I Management Consultants

KCI is a registered Microfinance company, with over 115 branches and agents countrywide. KCI was found in 2010. It's headquartered in Eastlea, Harare. KCI has over 400 employees nationwide. It offers Business Loans which are offered to all retailers, vendors, hardware, flea markets and many others; in the form of working capital financing that is restocking and Asset loans which will be for purchase of equipment (K.C.I Management Consultants , 2019)

It also offers consumer loans which include loans for household furniture and other personal assets. Another product they offer is school Fees Loans which allows clients to pay school fees and then raise the money while your children go to school undisturbed. Emergency Loans which includes medical bills payment and customs duty payment is another loan type KCI offers. Moreover, KCI offers agricultural loans to finance the activities of farmers who practice horticulture, animal husbandry, tobacco farming or cotton at any scale. These loans are payable within the projected harvest and sales period. In short KCI has a wide range of customers and this comes with problems of non-performing loans (K.C.I Management Consultants , 2019).

Therefore, the study aimed on the management of nonperforming loans a case of K.C. I Management Consultants. The institution is experiencing nonperforming loans on its operations. Table 1.1 below indicates the institution's non-performing loan levels.

Table 1.1: K.C.I Management Consultants loan book

YEAR	2014	2015	2016	2017	2018
Loans Granted US$	752832	800583	69063	718695	6459315
Non-Performing Loan US$	30113	72052	73061	93430	80095
Percentage of Non-Performing Loans	4%	9%	9.5%	13%	12.4%%

(K.C.I Management Consultants , 2018)

The table above shows nonperforming loans were $30113 in 2014 and doubled the following year to $72052 in 2016 and increased gradually up to $93430 in 2017 and $80095 in 2018.Level of nonperforming loans have increased from 4% as at 2014 to 12.4% as at 2018, this nonperforming rate is greater than the 5% stipulated in Basel II (Basel, 2014), thus becoming a problem which needs to be addressed the research. The area of non-performing loans has received wide scholarly attention across the globe however in Zimbabwe there has been a gap in the management of non-performing loans since many scholars mainly focused on the effects of non-performing loans in

commercial banks. This research will aim on the management of non-performing loans in the microfinance sector in Zimbabwe taking K.C.I Management Consultants Private Limited)

1.3 Statement of the Problem

Clients are facing challenges and taking long to settle off their loan balances leading to the increase on nonperforming loan rate. Reserve Bank of Zimbabwe (2019) Indicated that there have been challenges in terms of management of loans as there have been poor collection rates evidenced by the level of non-performing loans in the financial industry which were 7.06% in 2017 followed by 8.25 % 2018. According to Zimbabwe Association of Microfinance (2018) there has been a reduction in the percentage level of portfolio at risk in the microfinance sector over the past few years that is 16.7% in 2015, 10.3% in 2016, 7.9% in 2017 and 7% in 2018. Despite the improvement in the portfolio at risk levels, non-performing loans remains a problem which needs to be addressed as it is still above the global recommended of 5% by the Basel committee. The research aims to look into the relationship between non-performing loans and their causes, and also on the strategies that are being used to reduce non-performing loans to improve the performance of the microfinance sector in Zimbabwe.

1.4 Research Aim

The aim of the research is to explore the determinants of non-performing loans in Zimbabwe taking KCI Management Consultants as a case study

1.5 Research Objective

The objectives of the research are to:

1.5.1 Assess the effects of information technology system on non-performing loans.

1.5.2 Ascertain effects of credit evaluation on non-performing loans

1.5.3 Evaluate effects of interest rates on non-performing loans

1.5.4 Establish the effects of collection policy on non-performing loans.

1.6. Research Questions

1.6.1 What are the effects of information technology systems on non-performing loans at K.C.I Management Consultants?

1.6.2 What are the effects of credit evaluation on non-performing loans at K.C.I Management Consultants?

1.6.3 What are the effects of interest rates on non-performing loans at K.C.I Management Consultant?

1.6.4. What are effects of collection policy on non-performing loans at K.C.I Management Consultants?

1.7 Assumptions of the Study

Assumptions are:

- The economic factors affecting loan repayment will remain unchanged during the duration of the project.
- The financial industry regulator will not change policies during the research period.
- No changes in the monetary policy

- Findings based on the case study can be applied to other micro – finance institutions operating in similar economic environments similar

1.8 Significance of the study

Research provides an understanding of relationship between non-performing loans and their causes focusing on the microfinance sector in Zimbabwe using KCI Microfinance as a case study. It also aims at meeting part of the requirements of the Executive Masters in Business Administration. The study aims to help the researcher to know more about the management of non-performing loans.

The study intends to assist other researchers in their studies on the Relationship between non-performing loans and their causes related to microfinance sector, by using it as a reference. When the researcher was reading literature related to this study he found out that there are gaps available in it; most of the empirical studies on Relationship between non-performing loans and their causes have been much concentrated in Asian countries where microfinance originated. Only a few studies have been conducted in Africa. The research seeks to make an addition to the limited empirical researches carried in Zimbabwe regarding the Relationship between non-performing loans and their causes taking K.C.I microfinance as a case study. The research proposal is also motivated by the desire to add some knowledge at the global level.

The research provides information to the financial regulators when formulating policy that relates to the regulatory environment of the country as far as management of loans techniques are concerned. As the sector grows, the regulator has to come up with policies that address the various challenges within the sector to reduce any resultant

chaos and to facilitate faster growth with minimum drawbacks. The study in the various components of the sector help to unearth hitherto unknown information that will go a long way in facilitating further understanding of the management of non-performing loans in the microfinance sector.

The research provides guidance for existing and ideal managers who want to improve firm's performance through the enhancement management of nonperforming loans. The study aimed to provide the microfinance with new insights on the variables that need to be successfully managed in order to establish maintain a sustainable institution.

1.9 Delimitations

This study is adjusted to fit its objectives of examining the determinants of NPLs at K.C.I Management Consultants, Zimbabwe within the limits of specified time. The research decided to limit this study to the at K.C.I Management Consultants only. This study covers panel data of this Microfinance institution over the period 2011 to 2018 and regressed by linear regression model. The study also limits its self to four variables namely IT Systems, Interest rates, Collection policy and Evaluation policy.

1.10   Limitations of the study

The research concentrated on Non-performing loans using a case study based on KCI Management consultants and not on all the microfinance companies and it is concentrated on Zimbabwe and no comparison with other developing countries as well as with developed countries.

1.11   Layout of the Study

Chapter Two gives a theoretical framework with three theories being focused on that affects the variables. A relevance of the theoretical framework is looked into with an overview of the effects of the dependent variables to the independent variables using literature review where the global, African and Zimbabwean situation on the activities of Non-performing loans is discussed. And Chapter Three discusses the research methodology. This methodology outlines the instruments to be used for data collection and details the sampling procedures done in the research. A brief overview of the methods to be used in analyzing the collected data is also given in this chapter.

Chapters Four presented the findings of the study and examines the effects of Information Technology, credit evaluation, interest rates and collection policy on the non-performing loans. It also assessed the how the relationship between these variables and produced a regression analysis of them. And Chapter Five is the last chapter of the research focuses on making conclusions and recommendations based on the research results. The last area touches on the weaknesses of the study and suggestions for future research.

CHAPTER 2: REVIEW OF RELATED LITERATURE

2.1 Introduction

The chapter summarizes or reviews information from literature regarding the management of non-performing loans. The main aim of the chapter is to review conceptual framework of the relationship between non-performing loans and their causes at KCI Management Consultants.

2.2 Theoretical Framework

2.2.1 Asymmetrical Information Theory

Kwambai & Wandera (2013) note that the theory of asymmetric information revealed that it is complex to differentiate between good and bad borrowers and this could result in adverse selection and moral hazard problems. Kwambai & Wandera further notes that Information asymmetry results in misallocation of resources, a situation that can be called adverse selection. And they have been argued that borrowers are able to negotiate better terms in a lending contract because they have more information than the lender (Kwambai & Wandera, 2013). In this case the lender can either make a wrong or right decision related to a transaction. Kwambai & Wandera (2013) further argued that adverse selection and moral hazard have led to a considerable growth of non-performing loans in banks and Microfinances. These institutions must have a robust system that allows them to have as much information as possible about the borrower. They must also share information about defaulting clients, multiple borrowers and they must make use of Credit Reference Bureau. In addition, Financial Clearing Bureau (FCB) has been very useful in tracking clients with bad financial records. These are some of the possible ways

to reduce the effect of adverse selection thereby reducing the possibility of non-performing loans.

2.2.2 Adverse Selection Theory

Adverse selection occurs as a result of information asymmetry and it occurs before the transaction. Ngonyamo (2014) initiate several adverse selection models to assist banks with first-class information about the riskiness of the borrowers' projects. Failure to distinguish the riskiness of borrowers' projects would compromise interest rate charges on clients. According to Ngonyamo (2014) high interest rates charged to borrowers drive out worthy clients out of the credit market. This is attributed to failure to distinguish creditworthy and poor credit applicants thereby charging the same interest rate for all. Armendariz & Morduch (2010) added that the problem is compounded by failure to have laws that effectively enforce contracts. Nawai & Shariff (2010) urge banks to carefully select borrowers from all applicants and proceed to monitor the usage of borrowed funds. This will reduce adverse selection problems and moral hazard. In a lending scenario borrower has more information that lenders and it is expensive for lenders to get all the information. Adverse selection has been cited as one of the causes of nonperforming loans. Borrowers misrepresent information on their loan application creating problems to lenders. True information can be revealed at a cost which might outweigh the benefits. Overall, the problem of adverse selection has been attributed to poor credit assessment which can be corrected if the lending institution put adequate control in the lending department.

2.2.3 Moral Hazard Theory

Moral hazard occurs after the loan contract is finished and funds are disbursed. Client has the incentive to default if there are no future consequences to defaulting (Kwambai & Wandera, 2013). If client knows that he will not access another credit in future, he will not willfully default. Because of lack of credit information sharing among lending institutions defaulters can do away with their bad debts (Kwambai & Wandera, 2013). Due to information asymmetry problems clients engage in activities that are not in line with the agreement made with the bank. It is also difficult to assess the wealth that will accrue to borrowers at the end of the borrowing period thereby increasing chances of moral hazard. Kwambai & Wandera, (2013) also indicated that it is possible for financial intermediaries to avoid problems created by adverse selection and moral hazard through proper assessment of loan applications and monitoring borrowers. Armendariz & Morduch (2010) asserts that moral hazard starts when customers' attempts to escape with banks' funds. They added that moral hazard can also arise due to failure by banks to ensure that clients put maximum effort required for the success of projects that was funded by the bank. Monitoring of borrowers is very important to ensure that funds are not diverted to other uses different from the approved purpose. Diverting funds to other uses increases risk to the financial institution because of unforeseen added risk. The increased risk will be outside the interest cost charged. Financial institutions should make frequent scheduled visits to borrowed clients to ensure funds are used for the purpose approved. Some of the visits must be in form of surprise to ensure that financial institutions officials assess exact activities. Borrowers have the tendency to cover up their activities to institution officials and at times lie to the institution on what is exactly happening at their business premises.

2.3 Relevance of the Theoretical Frame to the Study

2.3.1 Credit Flow Framework

As a way to show the three theories that is Asymmetrical Information Theory, Adverse Selection Theory and Moral Hazard Theory fit into the study, a credit flow framework is to be shown to show how the loan application system works and how the variables of the study fits into the theoretical framework.

The loan application is the first step in any credit granting initiative. According to Ngonyamo, (2014), the loan application drives the credit granting process and all information about the borrowers is contained in the application form. Credit risk assessment has three aims which comprise the identification of primary and secondary source of repayment as well as assessing risks associated with the transaction. On the other hand, credit risk measurement involves the use of analytical tools to assess the level of risk and these tools are IT Systems that can be used. After performing credit assessment and risk measurement KCI management will attempt to limit credit risk exposures and ensure that there is compensation for risk taken. They also create security to cater for default event. Ngonyamo, (2014), indicated that risk rating is used to approve or decline a loan. This means that it is crucial in any lending business to ensure proper risk management systems and comprehensive credit risk assessment as well as provision for doubtful and bad debts to reduce credit risk (Kwambai & Wandera, 2013). Failure to do a proper lending assessment will mislead approval authorities resulting in adverse selection which aggravates non-performing loans. Credit risk is found at every step in the credit flow process. The following credit circle in Figure 2.1 shows lending activities.
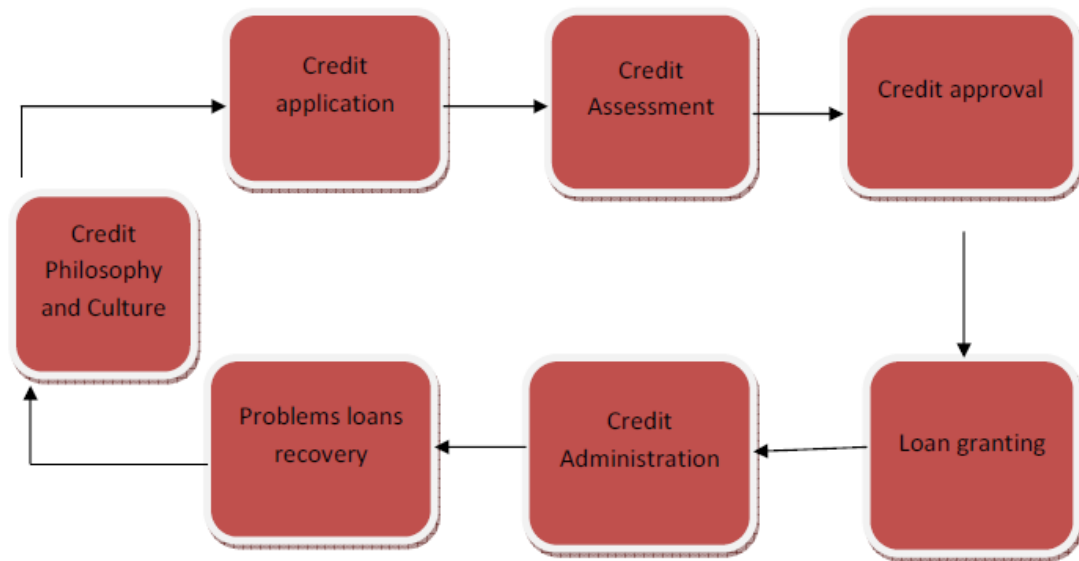
Figure 2.1: Credit process flow (Ngonyamo, 2014, p. 22)

At the loan granting stage, it is very important that terms and conditions of the loan are well documented and security is perfected before funds are disbursed. If a client notices a loophole on the loan terms and conditions he can renege on payment and the bank may fail to recover. Ngonyamo (2014) posited that laxity of credit terms and security on lending activities promotes moral hazard on borrowers. Borrowers take advantage of poor lending administration and management to delay payment and even taking the bank to court with the intention to avoid repayment. To further support the three theories, the effects of each independent variable will be discussed further from the Credit process.

2.3.2 Effect of Interest Rates on Non – Performing Loans

Ngonyamo (2014) states that the phrase 'bad loans' as is used interchangeably with non-performing loans. Loans that are outstanding in both principal and interest for a long

time contrary to the terms and conditions in the loan agreement are regarded as non-performing. (Benedetta *et al.,* 2015) revealed that bad loans are caused by adverse economic shocks, which consists of high cost of capital and low interest. In Zimbabwe all financial institutions are required to submit reports on non-performing loans to the regulator which is RBZ on a regular basis in order to help in the maintenance of the financial sector's condition. (Ngonyamo, 2014) pointed out that non-performing loans affect a financial sector of different countries as they cause economic stagnation by locking viable resources in areas where there is no generation of income or profits.

i)   Interest Rate

Interest rate is the price a borrower pays for the use of money they borrow from a lender/financial institutions or fee paid on borrowed assets (Chege, 2013). It is "rent of money" fundamental to a 'capitalist society' and normally expressed as a percentage rate over the period of one. Interest rate as a price of money reflects market information regarding expected change in the purchasing power of money or future inflation (Chege, 2013).

Mazzotti (2015) government's restrictions on interest rates restrict the levels and types of participation by financial intermediaries in rural financial markets because interest rates on directed agricultural credit are usually fixed below market rates. Restricting interest rates discourages savings and may discourage lending to small borrowers. The demand for loans may not be significantly affected by the level of interest rates (Arhin *et al.,* 2019), but interest rate setting is related to client selection. More promising projects might be selected at reasonable market rate. Loan collection performance might be better if poor projects are not selected.

Subsidized rates lead to rationing, which tends to favor the wealthy and politically connected and borrowers might not take the loans seriously enough (Arhin et al., (2019). Borrowers may take loans less seriously since the rate is lower than the market rate and money may not be used for the best investment available in the market. However, lower interest rates may be helpful for small borrowers who may not know many high return investment opportunities.

ii) High Interest Rate

The interest rate affects the rate of nonperforming loans in the case of floating interest rate. Loona & Zhong (2014) cite that non-performing loans are affected by volatility on interest rates. This implies that the effect of interest rates should be positive, and therefore, when there is an increase in the debt caused by the increase in payments of interest rates the chances by a borrower to pay off the increased debt will be slim and hence the rise of nonperforming loans (Bofondi & Ropele, 2011). Furthermore, Louzis *et al., (*2010) as well supported that high interest rates contribute to the formation of nonperforming loans. Okpugie (2010) also agrees that, high interest charged by the microfinance institutions has been indicated as the reason behind the alarming nonperforming loans as borrowers tend to choose investments with higher returns when successful but with lower probabilities of success.

Based on KCI Management Consultants their products are priced with high interest rates to high risk segments to maximize profitability therefore an increase in interest rate weakens loan repayment capacity of the borrower (Nkusu, 2011). Louzis *et al*., (2011) used dynamic panel data to highlight the factors causing nonperforming loans in the Ethiopian Microfinancing sector from 2009 to 2014, according to them high interest

rates, economic growth (GDP), unemployment and management quality are the determinants of nonperforming loans in the Microfinancing sector of Greece. Furthermore, Adebola *et al*., (2011) conducted a research in the Islamic Microfinancing sector of Malaysia covering the period between 2007 to 2009 according to them interest rate has a positive significant relationship with the nonperforming loans, this means an increase in interest rate will directly lead to an increase in nonperforming loans. Chege (2013) states that he microfinance institution with aggressive lending policies charging high interest rates to the borrowers are vulnerable to the increase of nonperforming loans. Collins & Wanjau (2011) also found interest rate as a primary factor boosting nonperforming loans.

iii) Non-Performing loans

A money advance which is now in default or near to, is a non-performing loan. These in many cases occur to loans that have been in default for 90 days. A loan is non-performing if payment of interest and principal are past due by 90 days (Sheefeni, 2015). The Reserve Bank of Zimbabwe is the regulator of the Microfinancing industry in Zimbabwe for all institutions licensed under the Microfinancing Act.

iv) Lending Interest Rate

Risky projects lead to high borrowing cost for borrowers which increase NPL levels. Lending money is perhaps the most important of all Micro financing activities, for the interest charged on loans is how the Microfinance earns cash flows. Interest rate is the price a borrower pays for the use of money they borrow from a lender/financial institutions or fee paid on borrowed assets (Collins &Wanjau, 2011). It measures the price at which borrowers of funds are willing to pay to the owners of capital while at the

same time measures the price at which lenders are willing to lend their money to enterprise in exchange for consumption. Cost of loan includes the principal repayments and interest rates are agreed at the time of the loan application (Caporale & Gil-Alana, 2010).

v) Interest Rate Spread

Microfinance lends a certain percentage of the customer deposits at a higher interest rate than it pays on such deposit; interest rate spread. The difference between the gross costs of borrowing and the net return on lending defines the intermediary costs (information costs, transaction costs (administration and default costs and operational costs) (Collins &Wanjau, 2011). Risk-averse Microfinances operate with a smaller spread than risk-neutral Microfinances since risk aversion raises the Microfinance's optimal interest rate and reduces the amount of credit supplied (Arhin *et al.,* (2019). The interest rate spread in Zimbabwe is relatively high for a long period limiting thus the access to loans and leading to NPLs. The factors that determine interest rate spreads include low level of savings, low supply of loans, insufficient competition in the domestic Microfinancing system, the inefficiency and low profitability of Microfinances, uncertainty in the economic environment, the inherited low quality of loan portfolios, institutional limitations, etc. (Hou, 2012). (Chenge, 2013) Opine that interest rate spread is highly correlated with non-performing loans and narrowing of interest rate spreads is related to superior Microfinance efficiency.

vi) Interest Rates and Non-Performing Loans

The impact of variations in market interest rates on Microfinances' performance is ambiguous; it largely depends on the degree of responses of asset and liability rates. In

general, since both sides of Microfinances' balance sheets are affected by market interest rates in a parallel fashion, the net impact on Microfinances' profitability can be deduced by tracing the responses of both assets and liabilities as market interest rates change. Irung (2013) theorize that Microfinances face insolvency due to falling asset values when Microfinance borrowers are unable to repay their debt owing to high interest rates. Consistent with portfolio theory, Eita (2012) opines that based on the inherent risks on lending Microfinances seek to maximize returns by increasing interest rates. Capital asset pricing theory looks at systematic risk brought about by market movements which affects loan defaults risk. The theory is, thus, used in calculating loan risks and appropriate interest to be charged in order to reduce the effect of default risk and maximize returns (Chenge, 2013). Investigation by Hancock confirms the conjecture that a higher level of market interest rates improves mortgage firm's profitability Ngonyamo (2014). In addition, the effect of interest rate spread changes on Microfinances' profitability is shown to be asymmetric with the effect originating from lending rates being greater than those of deposit rates. The stochastic behavior of market rates is also argued to be a significant factor that determines the mode Microfinances adopt in delivering their services. Munialo (2011) show that Microfinances can be either brokers or asset transformers subject to interest rate uncertainty. In a volatile interest rate environment, Microfinances minimize their risk exposure by performing the role of brokers, merely matching the arrival of assets and liabilities.

A loan portfolio is typically the largest asset and the predominate source of revenue for Microfinances. As such, it is one of the greatest sources of risk to Microfinance's safety and soundness. The level of interest risk attributed to the Microfinance's lending activities depends on the composition of its loan portfolio and the degree to which the

terms of its loans (e.g., maturity, rate structure, and embedded options) expose the Microfinance's revenue stream to changes in rates. Chege (2013) avers that an increase in interest rates makes savings from current income more attractive; increases repayment of existing floating-rate debt and thus lowers disposable income, with possible loan default. Besides, it increases the cost of goods obtained on credit which leads to loan defaults.

vii) Loanable Fund Theory

The loanable funds theory is an attempt to improve upon the classical theory of interest. It recognizes that money can play a disturbing role in the saving and investment processes and thereby causes variations in the level of income. The impact on the changes in the interest rate has on disposable income and the overall market value of their firm, credit managers tend to identify factors that determine the level of interest rates at any moment in time, as well as what causes interest rate movement over time.

Ngonyamo (2014) states that the loanable funds theory of interest rate determination views the level of interest rates in financial markets as resulting from factors that affect the supply and demand for goods and services. Therefore, the rate of interest is the price that equates the demand for supply of loanable funds. Thus, fluctuations in the rate of interest arise from variations either in the demand for loans or in the supply of credit funds available for lending. This implies that interest is the price that equates the demand for loanable funds with the supply of loanable funds. The loanable funds therefore are the sums of money supplied and demanded at any time in the money market. The supply of loanable funds is constituted by savings of the people and the additions to the money supply.

2.3.3. Effect of information technology on Non – Performing Loans

The use of appropriate technologies and a sophisticated information system can be considered a key factor in providing the Microfinancing sector with a real source of strength in the current market. The Microfinancing information system can be defined as a set of people, procedures, and tools designed to implement the collection, processing, exchange and archiving of data to obtain an organized flow of information that can be used to plan, execute, and control the business (Petzer, 2012). From a strategic point of view, a safe and efficient information system makes it possible to exploit the opportunities offered by technology to expand and improve products and services offered to customers, to enhance the quality of work processes, to promote dematerialization of securities, to reduce costs also through the virtualization of Microfinancing services. From an operational point of view, an information system provides managers with detailed, relevant and up to date information for taking timely decisions and for the proper implementation of the process of risk management advocated by the new regulations. In a context where the Microfinancing business is increasingly dependent on new technologies, an important role in preventing, reducing and controlling operational risk is played by information security in terms of defense against attacks and continuity of service.

According to Ngonyamo (2014), the use of in appropriate information technology system negatively affects the performance of loan. Loan management system is one of the most important systems in MFIs and must not be overlooked. Mazzotti (2015) describe LMS as methods and strategies used by Financial Institutions to ensure that they maintain an optimal level of credit and its effective management. Loan Management System involves the evaluation procedures the management or Loans

officers take to identify and control risk. Arko (2012) states that LMS is also known as credit management system which helps can help to reduce the level of non-performing loans.

i)   Computerized Credit Accommodation

Loan and guarantee contracts and other credit-related services (e.g., computerized bill services) can be processed electrically through the Internet. By developing this computerized credit accommodation, the clerical burden on SMEs for providing financial contracts will be substantially reduced (Ngonyamo, 2014).

Management information systems are essential for accurate data and monitoring of customers" progress Arhin et al., (2019). There should be effective management information systems in tracking payments, due loans, and overdue loans in order to systematically monitor loan performance.

2.3.4. Effect of collection policy on Non – Performing Loans

There are various policies that an organization should put in place to ensure that credit management is done effectively; one of these policies is a collection policy which is needed because all customers do not pay the firms bills in time. Some customers are slow payers while some are non-payers. The collection effort should, therefore aim at accelerating collections from slow payers and reducing bad debt losses (Kanyuru, 2011). There can be multiple aspects and arrangements by which an organization can set specific policies for collecting money from borrowers (Moti et al, 2012), keeping into focus that a few clients are moderate payers while some are non-payers. The

accumulation exertion ought to, subsequently go for quickening accumulations from moderate payers and lessening awful obligation misfortunes (Loona & Zhong, 2014).

i) Credit Risk Control

Credit risk is an investor's risk of loss arising from a borrower who does not make payments as promised. Such an event is called a default. Another term for credit risk is default risk. Investor losses include lost principal and interest, decreased cash flow, and increased collection costs. Credit risk can be mitigated using risk-based pricing, covenants, credit insurance, tightening and diversification (Frank *et al*, 2014).

Moti *et al.,* (2012) argue that intelligent and effective management of credit lines is a key requirement for effective credit management. Furthermore, to minimize the risk of bad debt and over-reserving, banks ought to have greater insight into important factors like, customer financial strength, credit score history and changing payment patterns (Moti *et al*, 2012). Few customers complete their payments while others don't pay at all. The collection effort will stimulate the nonpayers to pay does avoiding nonperforming loans (Kanyuru, 2011).

ii) The Economics of Consumer Credit Contracts and Collection Practices

For a lender to make a loan profitably, it must be able to price the risk of loss accurately. Therefore, if the risk of loss is higher, a lender will need to charge a higher price to compensate for the heightened risk of loss. If the lender is unable to accurately price the risk of the loan, such as because of regulatory limits, then the lender will reduce its risk exposure either by lending to fewer borrowers (and, in particular, by limiting credit offered to higher-risk borrowers) or by lending less to the same borrowers by reducing credit lines and loan size (Louzis *et al*., 2011).

One element of the risk of loss is the ability to collect from a debtor who defaults. If collection powers are weaker, the loss rate will be higher, for two reasons. First, if the creditor is more limited in its ability to collect, it will recover less from the defaulted debtor, and collection efforts will be costlier. Second, if the consequences of default are less severe, borrowers will be more likely to default. As a result, greater restraints on the ability of creditors to collect will tend to increase their losses. In turn, lenders will respond to this increased risk of loss by raising prices to compensate or by reducing risk exposure (Kanyuru, 2011).

As an a priori matter, therefore, it is not clear whether consumers as a whole will be made better or worse off from stricter regulation of collections. Although consumers who are already in default generally will benefit from greater restraints on collections, the benefit will come at the expense of other consumers who may end up paying more or obtaining less access to credit (including the borrower currently in default, who may want new credit in the future). Because at the time of making a loan a lender cannot perfectly predict which particular borrowers will eventually default, all potential borrowers will be forced to pay higher costs for credit, but especially riskier borrowers (Farhan, Sattar, Chaudhry, & Khalil, 2012). Conversely, weakening creditor remedies will increase the risk of loss for creditors, thereby raising the cost of lending. Such a reform will lead to a reduced supply of lending and higher prices, everything else being equal.

Strengthening restrictions on creditor remedies, therefore, will simultaneously shift the supply curve inward (by increasing the loss rate and thus the cost of lending) and the demand curve outward (by increasing consumer demand as a result of smaller adverse consequences from default). As shown in figure 1, the overall effect of the simultaneous

increase in demand and reduction in supply from regulatory or contractual restrictions on debt collection is ambiguous in terms of the overall quantity of credit.

As shown in figure 2.2, placing stricter limits on creditors' remedies will cause supply to shift in from S1 to S2 while also increasing consumer demand from D1 to D2. Overall quantity shifts from Q1 to Q2, illustrated here as a reduction in the equilibrium quantity amount. But, in theory, the increase in demand could exceed the reduction in supply if consumers valued the ability to be free from certain potential remedies more than creditors valued access to those remedies, even though the nominal price of credit (such as interest rates or down payments) were higher.
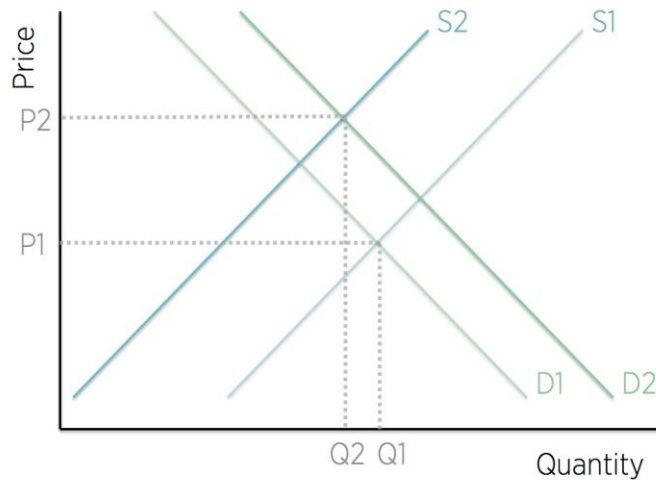
Figure 2.2: Effect of Restrictions on Debt Collection Remedies (Zywicki, 2015, p. 20)

Note: P = price; Q = quantity; D = demand; S = supply.

As a result of these offsetting adjustments, it is unclear as an a priori matter whether tighter restrictions on creditor collection remedies will increase consumer welfare. Because the total price to consumers includes the contingent costs associated with default, consumers may be willing to pay more on some margins, such as a higher interest rate, to prevent creditors from having access to certain remedies, assuming that they value those protections more highly than their costs. If the marginal benefit to consumers of avoiding a particular remedy is larger than the marginal cost in terms of the higher price, they must pay to compensate the lender for the heightened risk of loss, then the equilibrium level of credit and consumer welfare will be higher even if interest rates are higher.

iii) The Effects of Debt Collection Regulation on Higher-Risk Borrowers

Inefficient regulation of creditor remedies also can have distributive effects. As Dunkelberg notes in his study, higher-risk borrowers are most adversely affected by the higher interest rates and stricter lending standards imposed by lenders in response to tighter limits on debt collection (Zywicki, 2015). Hynes and Posner note another regressive distributional effect: restrictions on remedies affect unsecured credit more severely than they do secured credit, which increases the cost to consumers of unsecured credit relative to secured credit (Zywicki, 2015). High-income consumers are more likely to have access to assets that can provide collateral for loans, such as home equity loans. Creditors might also require co-signers before making a loan, a requirement that might further favor borrowers from higher-income backgrounds. As a result, high-wealth and high-income borrowers may be able to avoid the higher costs that accompany stricter limits on creditor remedies by increasing their use of secured credit (Gregory & Worden, 1998). Low-income consumers, by contrast, likely will be forced to turn to products such as payday loans and pawnshops to meet their credit needs. In fact, reducing access to credit by higher-risk borrowers could even benefit lower-risk borrowers by increasing the supply of lending capital available for loans to them (Hou, 2012).

In addition, there may be distributional consequences among borrowers who have different subjective and heterogeneous preferences with respect to the types of remedies that they are willing to accept on default. For example, some consumers may be more tolerant or may find different practices and remedies more useful than others. Moreover, some borrowers simply place a higher value in general on protection from creditor remedies than do others. More important, research indicates that borrowers who do place

a higher value on restricting creditor remedies are willing to compensate the lender for the higher risk incurred by, for example, paying a higher interest rate or a higher down payment or adjusting other terms of the contract. Regulatory restrictions on collections, however, typically take the form of mandatory rules that the parties cannot alter by contract; thus, even if borrowers agreed to permit access to a particular remedy (in exchange for a lower interest rate, for example), they would be prohibited from doing so. As a result, consumers who are more sensitive to intensive debt collection can force those who less sensitive to subsidize their preferences.

To the extent that the willingness to pay for such restrictions reflects a higher subjective willingness to default, the restrictions limit the ability of relatively low-risk borrowers to signal their creditworthiness and thus create a pooling equilibrium among relatively lower-risk and higher-risk borrowers; as a result, lower-risk borrowers subsidize higher-risk borrowers. In turn, the limitation on the ability of lower-risk borrowers to signal their relatively creditworthy status and to be rewarded through lower costs of borrowing can drive those consumers out of the relevant market as they substitute to other products (such as secured credit) for which the distorting effects of the regulation are not as costly (Hou, 2012).

2.3.5. Effect of credit evaluation on Non – Performing Loans
i) The Need for Sound Credit Policy
The maintenance of asset quality is fundamental to the sound operation of a commercial Microfinance. The board and management should establish policies and procedures which ensure that the Microfinance has a well-documented credit granting process, a strong portfolio management approach, prudent limits, effective credit review and loan

classification procedures and an appropriate methodology for dealing with problem exposures. A typical credit risk management framework in Microfinance may be broadly categorized into. Board and senior management, organizational structure and systems and procedures for identification, acceptance, measurement, monitoring and credit control (Moti et al, 2012)

The maintenance of asset quality is fundamental to the sound operation of a commercial Microfinance. The board and management should establish policies and procedures, which ensure that the Microfinance has a well-documented credit granting process, a strong portfolio management approach, prudent limits, effective credit review and loan classification procedures and an appropriate methodology for dealing with problem exposures.

According to Moti et al, (2012), a sound credit policy would help improve prudential oversight of asset quality, establish a set of minimum standards, and to apply a common language and methodology (assessment risk, pricing, documentation, securities, authorization and ethics), for measurement and reporting of non-performing assets, loan classification and provisioning. The credit policy should set out the Microfinances lending philosophy and specific procedures and means of monitoring the lending activity.

With regards to the asymmetry theory, it tells us that it may be difficult to distinguish good from bad borrowers. Richard (2011), MFIs may find it difficult to determines the credit worthiness of a person who approaches the firm for a loan, this may lead to an adverse selection and moral hazards problems. The theory explains that in the market, the party that possesses more information on a specific item to be transacted is in a

position to negotiate optimal term for the transaction than the other party. The party that knows less about the same specific item to be transacted is therefore in a position of making either right or wrong decision concerning the transaction. Adverse selection and moral hazards have led to significant accumulation of Non-Performing loan in banks (Arhin et al., 2019).

ii)   The 5 C's Model of Credit Assessment

Microfinance Institutions use the 5Cs model of credit to evaluate a customer as a potential borrower (Abedi cited in Arko, (2012). The 5Cs help financial institutions to reduce non-performing loans thus increasing loan performance, as they get to know their customers better. These 5Cs are: character, capacity, collateral, capital and condition. Character basically is a tool that provides weighting values for various characteristics of a credit applicant and the total weighted score of the applicant is used to estimate his credit worthiness (Frank et al., 2014). This is the personal impression the client makes on the potential lender. The factors that influence a client can be categorized into personal, cultural, social and economic factors. The psychological factor is based on a man's inner worth rather than on his tangible evidences of accomplishment. MFI's consider this factor by observing and learning about the individual. In most cases it is not considered on first application of credit by an applicant but from the second time. Under social factors, lifestyle is the way a person lives (Bhattarai, 2015). This includes patterns of social relations (membership groups), consumption and entertainment. A lifestyle typically also reflects an individual's attitudes, values or worldview. Reference groups in most cases have indirect influence on a person's credibility. MFI's try to identify the reference groups of their target as they influence a client's credibility.

33

Personal factors include age, life cycle stage, occupation, income or economic situation, personality and self-concept. Under life cycle stage for example older families with mature children are not likely to default since it's easier to attach collateral on their assets since they are settled unlike the unsettled young couples. The MFI's will consider the cash flow from the business, the timing of the repayment, and the successful repayment of the loan. Moti *et al.,* (2012), defines cash flow as the cash a borrower has to pay his debt. Cash flow helps the MFI's to determine if the borrower has the ability to repay the debt. The analysis of cash flow can be very technical. It may include more than simply comparing income and expenses. MFI's determines cash flow by examining existing cash flow statements (if available) and reasonable projections for the future (ratios).

Arhin *et al.,* (2019) posits that lenders review the borrower's business plan and financial statements; they have a checklist of items to look at one of the being the number of financial ratios that the financial statements reveal. These ratios are guidelines to assist lenders determine whether the borrower will be able to service current expenses plus pay for the additional expense of a new loan. Collateral is any asset that customers have to pledge against debt (Azeem & Amara, 2014). Collateral represents assets that the company pledges as alternative repayment source of loan. Most collateral is in form of hard assets such as real estate and office or manufacturing equipment. Alternatively accounts receivable and inventory can be pledged as collateral. Lenders of short-term funds prefer collateral that has duration closely matched to the short-term loan according to (Arko, 2012) capital is measured by the general financial position of the borrower as indicated by a financial ratio analysis, with special emphasis on tangible net worth of the

borrower's business. Thus, capital is the money a borrower has personally invested in the business and is an indication of how much the borrower has at risk should the business fail. Condition refers to the borrower's sensitivity to external forces such as interest rates, inflation rates, business cycles as well as competitive pressures. The conditions focus on the borrower's vulnerability.

iii)   Poor and unprofessional Credit evaluation

With the due respect to lending decisions made in the past by the financial sector, a lot of emphasis has been put on security than other similar important considerations. There are instances in the past when it was easier to get a loan from financial institutions as long as the borrower has security to be charged than the ability to service the loan. Cash flow projections, viability of the projects, character of the borrowers, previous loans completion and ability to repay were not considered as important. This way a number of Microfinances ended up with many non-performing loans due to incomplete, poor and unprofessional credit risk assessment and evaluation (RBZ, 2018).

2.4 Empirical Studies

Several studies have been on the determinants of nonperforming loans in commercial Microfinances and Banks. Dimitrios (2011) study in the Greece Microfinancing sector, found that macroeconomic variables specifically the real GDP growth rate, the unemployment rate, the lending rates and public debt have a strong effect on the level of NPLs. According to Muhammad (2012) his study on the economic determinants of nonperforming loans in Pakistan, found out interest rates, energy crisis, unemployment, inflation and exchange rates have a significant and positive relationship with the nonperforming loans while GDP growth has a significant negative relationship with the

nonperforming loans of Pakistan Microfinancing sector. Bad performance of energy sectors along with poor economic settings/conditions were the main factors causing NPLs in Pakistan.

According to Adebola, Yusoff & Dahalan, (2011) the study in Malaysia to investigate the determinants of nonperforming loans in the Islamic Microfinancing sector of Malaysia covering the period between 2007 and 2009 found out that interest rates had a positive significant relationship with nonperforming loans and producer price index a negative and significant relationship with nonperforming loans in the Islamic Microfinancing sector in Malaysia. They also concluded that other microeconomic variables played a role in the increase in NPLS in Malaysia.

Keeton & Morris (1987) conducted a research in America to identify the factors which contribute to non-performing loans in the Microfinancing sector of this country by taking data from1979-1985 and according to them bad performance of agriculture and energy sectors along with poor economic settings/conditions are the main factors causing nonperforming loans, according to the authors energy crisis leads to bad of loans in the economy. Tireito (2012), the study examined the relationship between interest rates charged by Microfinances between 2007 and 2011 and non-performing loans for the same Microfinances. The author concluded that there was no significant relationship between interest rates and nonperforming loans.

For 25 emerging market economies in the period from 1996 to 2010, (De Bock & Demyanets, 2012) estimate various panel regressions on the basis of annual data that include the lagged dependent variable and unobserved country effects. Real GDP contraction, currency depreciation against the U.S dollar, weaker terms of trade and outflows of debt-creating capital (portfolio debt and Microfinance loans) lead to a higher

aggregate NPL ratio of the Microfinancing sector. The sharp deterioration of loan quality following a reversal of portfolio inflows is particularly noteworthy. The (first lagged) increase in the private credit-to-GDP ratio has no significant impact in the whole sample but is significant with a negative sign in the 2004 to 2010 subsample.

In a second step, feedback effects from the financial sector on the wider economy are found to be significant according to a PVAR model with fixed effects, in which GDP growth falls in the wake of shocks that drive NPLs higher or generate a contraction in credit. For 26 advanced economies in the period from 1998 to 2009, Nkusu (2011) investigated the macroeconomic determinants of the NPL ratio and of the first difference of the NPL ratio in various panel regressions on the basis of annual data that include the lagged dependent variable. The results confirm that adverse macroeconomic developments, in particular a contraction of real GDP, a higher unemployment rate, higher interest rates, a fall in house prices and a fall in equity prices, are associated with rising NPLs.

Ongwezo (2005) carried out a research on the relationship between interest rates and non-performing loans in commercial Microfinances in Kenya. Her findings revealed that the general economic improved significantly in the country as market rate interest reduced from 12.02 in 2000 to 2.96 in 2004. The research covered the period between 2000 and 2005 and her findings revealed a positive relationship between interest rates and non-performing loans in commercial Microfinances whereby an increase in the interest rate resulted to an increase in NPLs, a test of significance however revealed a weaker relationship between the two. Muniu (2012) carried out a study on the relationship between changes in central Microfinance rate and the level of

nonperforming loans in commercial Microfinances in Kenya. The research covered the period 2007-2012 and his findings was that while Microfinance rate has a negative significant effect on the net nonperforming loans; lending rates very much affect non-performing loans positively so that an increase in interest rates results into an increase in net performing loans. To augment on the gap that might not be captured on quantitative survey and to understand deeper understating of the relationship between lending rates and NPLs, cost of funds borrowed will be used to assist understand this relationship better.

Gaitho (2010) carried out a research to investigate the causes of nonperforming loans in Kenya, and found out that the main causes were economic downturn which leads to depression of businesses, reduced buying ability of consumers, insider lending, owner concentration, and inadequate procedure for credit risk, misuse of loans and legal delays.

2.5. Chapter Conclusion
The chapter discussed the concept of non-performing loans in regards to interest rates, credit policy, collection policy and Information Technology Systems. It touched on the effects of each item on non-performing loans producing a dynamic range of effects and theories that have been discussed in these topics.

Furth more it discussed about empirical studies which then points to a gap that needs to be filled through further study to establish the effects of the discussed topics and nonperforming loans. To start with Tireito (2012), research on the relationship between interest rates and nonperforming loans found that there exists no relationship between

the two factors. This therefore gap calls for a further research on the relationship between lending rates and nonperforming loans in commercial Microfinances.

Ongwezo (2005) study found out a positive relationship interest rates and nonperforming loans but since then the economic environment has changed greatly leading to a research gap. The study was carried out when the economic environment was favorable to both the Microfinances and borrowers. Gaitho (2010), study on causes of NPLS never mentioned lending rates as a factor that contributed to an increase in nonperforming loans in commercial Microfinances.

CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter is an overall scheme, plan or structure, which will aid the researcher in answering the raised research questions and research objectives. The chapter shows how research was executed and how respondents were approached. Therefore, in this section the research identified the procedures and techniques that were used in the collection, processing and analysis of data. Specifically, the following subsections were included; research design, data collection instruments, data collection procedures and finally data analysis.

3.2 The Research Design

The study is based on a case study and a cross sectional survey research design was used because cross sectional survey research design involves the use of cross-sectional regression, in order to sort out the existence and magnitude of causal effects of Information Technology systems, Interest rates, Collection Policy and credit evaluation upon non-performing loan at a given point in time. And the examination of the data is most often conducted within the context of its use (**Murithi, Mwania & Mwinzi, 2016**), that's why the case study.

3.2.1 Research Approach

The study adopted a pragmatist research approach which made it possible for the study to then use mixed methods as a research choice for this research. According to Saunders *et al.,* (2012) mixed methods research is both a method and methodology for conducting research that involves collecting, analyzing, and integrating quantitative and qualitative

research in a single study or a longitudinal program of inquiry. As it combines both qualitative and quantitative research methods, it provides a better way to analyses a problem and produce better results than each one alone.

3.2.2. Conceptual Framework

Relationship between non-performing loans and their causes. Looking at the relationship between non-performing loans and variables like interest rate, inappropriate information technology, collection policy and credit evaluation, and how these variables affect the non-performing loans.

Figure 3.1: Conceptual Framework

Independent Variables		**Dependent Variable**
Interest Rate		
information Technology system	→	Non-Performing loans
Collection Policy		
Credit Evaluation (borrower Screening)		
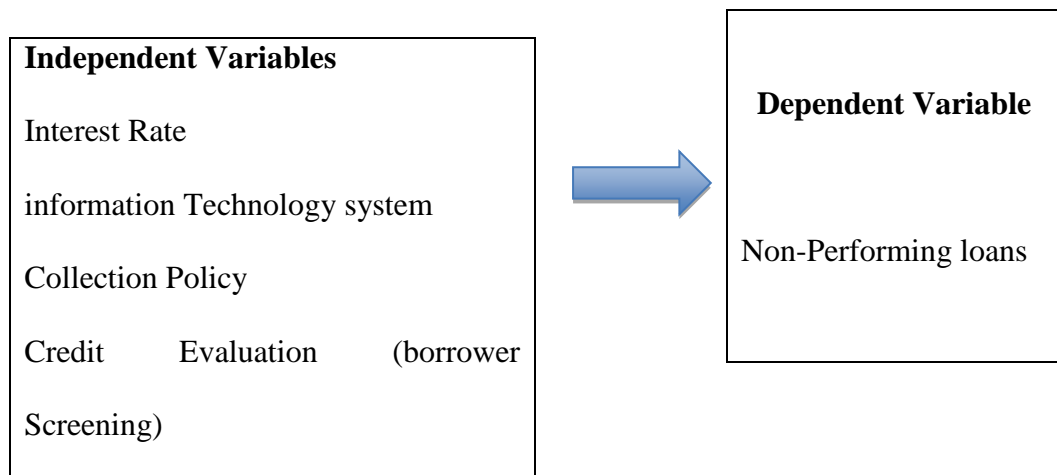
Adapted from (Ngonyamo, 2014, p. 32)

    a) Interest Rate

This is an independent variable that is normally expressed as a percentage rate of money borrowed over the period of one. It is the price a borrower pays for the use of money they borrow from a lender/financial institutions or fee paid on borrowed assets (Chege, 2013).

b) Information Technology system

This is another independent variable in the study, to find out how it is affecting the performance on the loan book. It is a set of people, procedures, and tools designed to implement the collection, processing, exchange and archiving of data to obtain an organized flow of information that can be used to plan, execute, and control the business (Petzer, 2012). This IT system is found at KCI Management consulting system IT department.

c) Collection Policy

This another independent variable used in the study to find out how it affects the loan book. It can be multiple aspects and arrangements by which an organization can set specific policies for collecting money from borrowers (Moti et al, 2012). This policy is found in KCI management consultancy policies

d) Credit Evaluation (borrower Screening)

This another independent variable used in the study to find out how it affects the loan book. These are procedures for identification, acceptance, measurement, monitoring and credit control (Moti et al, 2012). These procedures are found in KCI handbook.

e) Non-Performing loans

This is the dependent variable which has been tested against the independent variables using correlation and regression analysis. It is a loan that is in default or close to being in default. These in many cases occur to loans that have been in default for 90 days. A loan is non-performing if payment of interest and principal are past due by 90 days (Sheefeni, 2015). It is found the loan of the company.

3.2.3 Quantitative data

Kanyuru (2011) states that quantitative research is about statistical and summarization analysis. The researcher used reliability scale for data collected from respondents showing that calculations given by participants are reliable. Regression coefficient was used to see whether the various variables causes non-performing loan.

3.2.4 Qualitative data

Kanyuru (2011) also states that qualitative data includes a combination of interpretive and exploratory activities rather than factually descriptive procedures. The research used an open-ended questionnaire and more information was obtained from respondents. Qualitative data was relevant to the study as it involves subjectivity reality to describe and explain relationships. Qualitative data was also relevant to the research as it provided depth and detail on the management of non-performing loans.

3.3 Population and Sampling

Murithi, et al., (2016) define a study population as consisting of the total collections of elements about which the study wants to make some inferences. The target population of the study was employees from specific, relevant departments at K.C.I and these departments are Credit Controllers and Loans officers who have knowledge on the management of non-performing loans. The total population was 167.

3.3.1 Research Sample

According to Murithi, *et al*., (2016) a sample size is viewed as the number of units to be included in a study. The research was restricted to the sample of 69 which was determined using Yamane's (1967) formula which was also used by Ngonyamo, (2014) and is shown below. The 69 were from credit management personnel to enable the

researcher to effectively administer the research study and come up with accurate results.

The researcher used stratified sampling and within the strata a simple random sampling procedure is used and it gives element in the population an equal chance of being chosen and included, in selecting the sample whereby credit management personnel of K.C.I Management Consultants were selected, who are ought to have upper hand information about the management of non-performing loans as shown on table 3.1.

As noted by Ngonyamo, (2014) stratified random sampling is considered to be more statistically efficient than simple random sampling where the population consists of distinct strata. The statistical efficiency of stratification arises from the fact that each stratum is internally homogeneous, consisting of more or less similar cases, but is externally heterogeneous with other strata. The sample was therefore proportionally divided into two strata consisting of Credit Controllers (20 per cent) and Loan officers (80 per cent). The samples from these strata were then selected using a simple random sampling method using the register from the Human resources department local authority as the sampling frame.

In order to ensure a representative sample of sufficient size, the study considered three criteria: the precision level (sampling error), the level of confidence and the degree of variability of the firms. The sample size was determined using Yamane's (1967) formula which is the one that is recommended for stratified random samples (Ngonyamo, 2014):

$$n_0 = \frac{N}{1 + N(e)^2}$$

$$\dots\dots\dots\dots\dots\dots (1)$$

$$n = \frac{n_0}{1 + \left(\frac{n_0 - 1}{N} \right)}$$

$$\dots\dots\dots\dots\dots (2)$$

Where: e = the sampling error,

N = the population size,

$n0$ = the first approximation of n,

and n = the minimum required sample size

This method of determining the sample size ensures adequate sample representativeness, especially for heterogeneous populations such as small firms located in geographical clusters. However, in order to populate the equations 1.and 2 above, the researcher must assume the relevant precision level deemed to be appropriate for the study (Kaseke, 2012). In this study, we use a precision level of 5%.

Table 3.1 Sampling Layout for study

	Population	Sample	% sample
Credit Controllers	33	14	80
Loan Officers	133	55	79
Total	166	69	69

3.4 Data Collection Instruments

Data was collected through the use of simple data collection forms which were administered to the personnel of K.C.I Management Consultants. A drop and pick later method were used to collect the data. The questionnaires constituted of two parts: Part one addressed the profile of the respondents and, and Part two focused on the various effects being studded on performance of loan portfolio. Secondary data was also used with focus on already existing data (publications). This will aim at having a better understanding and to provide an insightful interpretation of the results from the study.

3.4.1 Questionnaires

Saunders et al, (2012) a questionnaire is a rundown of questions that are planned developed and sequenced with a specific end goal to deliver the most reasonable information for the research. The researcher used shut ended questions. The questions formulated   by the researcher were in compliance with research objectives, sub research

questions and also to the main research problem. The questionnaires were distributed to 69 KCI personnel under study.

a) Advantages of the questionnaires

Large amount of information was collected from many respondents in a short period of time and in a cost-efficient manner. Data that was provided by the questionnaires was very simple and easy to interpret. The questionnaires are convenient for the research and were carried out by the researcher with limited effect to its validity and reliability; the questionnaires likewise gave the respondents' a great opportunity to consider the inquiries before they respond.

b) Problems faced on using questionnaires

There is no way to tell how truthful the respondents are. Misinterpretation of the questions by the respondents will lead to unclear responses. To mitigate the problems, the researcher explained well to the participants.

3.5 Data Collection Procedure

Primary data was collected using a structured questionnaire. Questionnaires allow collection of large amounts of data from respondents in different locations and they can be administered through postal, self-delivery, through email and pick and drop. The respondents can complete the questionnaire during their own convenient time and return the questionnaire. Self-administered copies of questionnaires were sent to all selected participants in the research. An introductory letter was attached to provide participants with clarity of the aims of the research. Participants were given five working days to respond as they might be occupied with work. The questionnaire consisted of close ended questions so as to ensure collection of quality data

3.6 Analysis and Organization of Data

Saunders *et al*., (2012) explain that data analysis involves breaking down data and clarifying the nature of the components parts in order to establish relationship between them. The data that was collected through questionnaires was tabulated and analyzed using the Statistical Package for the Social Sciences (SPSS) software package, using a regression analysis to find the relationship between collection policy and non-performing loans.

3.6.1 Model Specification

Before the researcher process and compile the responses, the completed questionnaires were checked and edited for completeness and consistency. Data was then coded in order to group the responses into categories. Findings were presented in tables and also as percentage for comparison. The researcher used econometric model in the research. Econometric model refers to a representation of the basic features of an economic development. For the objectives of the study the researcher used the multiple regression models. According to Murithi, *et al.,* (2016) the general purpose of the multiple regressions is to learn more about the relationship between several independent or predictor variables and a dependent or criterion variable. The model can be expressed as follows:

$$YNPLs = \beta o + \beta 1 X1 + e$$

Where:

YNPLs = Nonperforming Loans.

$\beta 1$, = Regression coefficient

X1 = study variable e.g. Collection policy

e = error term

βo = Constant term

A regression equation was formulated, in order to meet the objectives of the research, in this econometric model, Non-performing loan (dependent variable) and the independent variables are ICT Systems (ICT), Interest Rates (IR), Collection Policies (CP), credit terms (CTs) and credit evaluation/ borrower screening (CE).

3.7 Data Validity and Reliability

Saunders et al, (2012) indicated Cronbach's alpha test can be used to test internal consistency of responses. It measures the consistency of responses across all questions. Pilot study was carried out to ensure reliability. According to Robson cited in Saunders et al, (2012) indicated that there are several threats to reliability which are participant error, participant bias, observer error and observer bias. These threats to reliability were considered in this research to ensure that they do not affect results. Validity looks at the level at which measurement instruments are measuring intended purpose. Reliability ensures that if the same process is repeated same results will come out. Validity was ensured in this research by having a large sample.

3.8 Ethical Consideration

The research was conducted in the manner, which meets the Africa University Research Ethics Committee (AUREC). AUREC mandate is to ensure that the researchers conducted on animal and humans meet the highest level of ethical and scientific standards. Based on Masic & Hodzic (2014), behaving ethically means no harm should come to research participants, they should agree to participate and know what the

research is about. Privacy of participants was guaranteed and consent of participants was sought before the research commences. Full introductions were made to participants and the reason for the study was well explained to ensure understanding. Information was collected in order to be used for academic purposes only and confidentiality was guarantee to all participants. Names of individuals who were participating in the research were not disclosed. The university as the publisher will ensure that the publication will follow ethical guidelines in order to protect the participants. Data collection an instrument was be kept safely in order to protect confidentiality. Participants benefited as they gained knowledge on the management of non-performing loans.

3.9 Summary

The research follows the pragmatism approach and a mixed methods research methodology was adopted in this research. Stratified sampling method was used to ensure fair representation of all subgroups of the population under study. Sample size 69 was used and. The total population was 167 and both stratified sampling and random sampling were used to come up with a sample of 69. The validity and reliability of the research was tested through Cronbach alpha.

The chapter also looked at the data analysis and presentation which was done through SPSS version 20. Reliability test was performed to measure consistency and the hypothesis was tested using multiple regression analysis. This chapter has summarized mainly the way data was collected and the next chapter will analyze the findings.

CHAPTER 4: DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

The research objective was to establish the relationship between Non-Performing Loans and their causes which are information technology system, credit evaluation, interest rates, and collection policy in Microfinances in Zimbabwe using KCI Management Consultants as a case study. This chapter presents the analysis and findings with regard to the objective and discussion of the same. The findings are presented in correlation and regression. Data was collected from 69 credit management personnel. The data sources included published annual reports for a period for the year 2019 as well as other publications. Data was collected based on the variables of the study, that is, financial performance depicted by Nonperforming loans, information technology system, credit evaluation, interest rates, and collection policy.

4.2 Data Presentation and Analysis

4.2.1 Sample Analysis

This study on non-performing loans was done on a sample of fifty-four employees randomly selected from two strata in credit management department shown on table 4.2. The mean age of respondents was 31.7 and the modal age was 23 years with a total frequency of eight. The median age was 32 while the maximum age was 51. Table 4.1 shows the statistics

Table 4.1: Age Statistics

age		
N	Valid	54
	Missing	0
Mean		31.7407
Median		32.0000
Mode		23.00

4.2.2 Response Rate

The research selected participants using stratified sampling to ensure representation of all departments under credit management personnel department. Respondents were chosen randomly from the selected sections. Out of 69 questionnaires sent 54 were returned. This resulted in the overall response rate for all questionnaires to be 78% which was very good. Johnson & Wislar (2012) indicated that questionnaires response rate of 60% and above is good for any research but this research is far above 60%. The high response rate was attributed to self-administered distribution and collection of questionnaires. According to Saunders et al, (2012), high response rate is important to ensure validity and reliability of the research. Response from the selected sections of credit management department employees was 78%. Credit controllers recorded the highest response rate of 85.7% compared to Loan Officers which had a response rate of 43 responses which is 79.6%. Table 4.2 below clearly shows response of participants from the selected credit management department.

Table 4.2: Questionnaire response rate

Respondents (Employees of credit department)	Numbers of Questionnaires sent	Returned questionnaires	% Response
Credit Controllers	14	12	85.7%
Loan Officers	55	43	79.6%
Total	69	54	78%

4.2.3 Reliability Test

SPSS was used to test the reliability of all research variables in the questionnaire by calculating the Cronbach's Alpha values. No item was deleted in order to raise Cronbach's Alpha because there was no significant change in values after the deletion. Table 4.3 below shows the overall reliability of all the variables in the research and the Cronbach's Alpha was 0.838. Takakol & Dennick (2011) indicated Cronbach's Alpha range of 0.7 to 0.95 is acceptable in research.

Table 4.3: Overall Reliability

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.838	.894	25

4.2.4 Demographic Analysis of Respondents

The following tables show demographic information of respondents

Table 4.4: Responses by gender

Gender	Frequency	Percentage
Male	36	66.6%
Female	18	33,3%
Total	54	100%

The sample of respondents comprised of 66.6% males and 33.3% females as shown in Table 4.4. This indicates that the lending department is dominated by males.

4.2.5 Educational qualifications of respondents

Table 4.5: Educational qualifications of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Doctorate	2	3.1	3.1	3.1
	Master's Degree	21	32.3	32.3	35.4
	Undergraduate degree	34	52.3	52.3	87.7
	diploma	6	9.2	9.2	96.9
	A level	1	1.5	1.5	98.5
	O level	1	1.5	1.5	100.0
	Total	54	100.0	100.0	

Table 4.5 shows that the sample had a higher percentage of employees with undergraduate degrees (52.3%) and master's degree (32.3%). In general, this shows that the lending department was considered very important and hence qualifications are an important entry qualification. Qualifications are important for the employees to appreciate the dynamic lending environment.

4.2.6 Number of years in the credit department

Table 4.6 below indicates that most of the employees in the credit management departments have more than five years lending experience. This showed that most employees sampled were experienced in credit management business hence likely to provide informed opinion on the research questions.

Table 4.6: Number of years in the credit department

Number of years in the Credit Department	Frequency	Percentage
>1 year	18	28%
1 - > 5years	23	35%
5 - < 10 years	24	37%

4.2.7 Extent of contribution of each factor to non-performing loans

Table 4.7 below show the views of respondents on the contribution of each of the causes of non-performing loans. The table indicates that some factors contribute more to the increase in non-performing loans while others contribute less. Since the major aim of the research was to find out the effects of the selected causes of non-performing loans. Table 4.7 answers this question by clearly outlining the causes of nonperforming loans. Table 4.7 show causes with high mean indicating that they are the major causes of non-performing loans. Information technology system (mean 4.26), credit evaluation (mean 4.04), interest rate (mean 5.14), Collection policy (mean 4.42) have been major causes of non-performing as shown by high mean recording. Research results indicated that most participants in the research cited these causes to be major causes contributing to the high level of non-performing loans in microfinance.

Table 4.7: Extent of contribution of each factor to non-performing loans

Cause	Not at All	To Limited Extent	Not sure	To Certain Extent	To Larger Extent	Weighted Mean
information technology system	13.8%	21.5%	21.53%	9.2%	33.8%	4.26
credit evaluation	12.3%	29.2%	16.9%	18.5%	23%	4.04
interest rate	7.7%	18.5%	4.6	32.3%	41.5%	5.14
Collection policy	18.5%	10.8%	15.4%	23%	32.3%	4.42

4.2.8 The level of non-performing loans within the organization.

Table 4.8 below shows that 56.9% of the respondents revealed that the institution has a problem of non-performing loans which is above 10%. This is really an issue which needs to be addressed. The level of non-performing loans is too high Table 4.8 below indicates that 96.9% research participants experience the problem of non-performing loans. Only 3.1% of the sampled population are not affected by non-performing loans.

Table 4.8: The level of non-performing loans within the organization.

	Frequency	Percent	Valid Percent	Cumulative Percent
less than 5%	2	3.1	3.1	3.1
5-10%	26	40.0	40.0	43.1
more than 10%	37	56.9	56.9	100.0
Total	65	100.0	100.0	

4.2.9 Correlations

Another aim of this research was to assess relationships between variables. Table 4.9 the use of Pearson Correlation Coefficient to test the relationship between independent and dependent variables in this research. The direction and significance of relationship are clearly shown in the tables.

Table 4.9: Correlation Table

		npl	IITS	CS	IR	CP
Pearson Correlation	npl	1.000	.801	.311	.638	.707
	IITS	.801	1.000	.481	.364	.408
	CS	.311	.481	1.000	.430	-.123
	IR	.638	.364	.430	1.000	.783
	CP	.707	.408	-.123	.783	1.000
Sig. (1-tailed)	npl	.	.052	.305	.124	.091
	IITS	.052	.	.206	.274	.248
	CS	.305	.206	.	.235	.422
	IR	.124	.274	.235	.	.059
	CP	.091	.248	.422	.059	.
N	npl	54	54	54	54	54
	IITS	54	54	54	54	54
	CS	54	54	54	54	54
	IR	54	54	54	54	54
	CP	54	54	54	54	54

Table 4.9 shows that:

a) There is a very strong positive relationship between non-performing loans and Information Technology systems.

b) There is a weak positive relationship between non-performing loans and Credit evaluation.

c) There is a strong positive relationship between non-performing loans and Interest Rate

d) There is a strong positive relationship between non-performing loans and Collection policy.

4.2.10 Regression Test

According to Pallat (2012), regression analysis is a refined extension of correlation analysis used to assess the predictive ability of independent variables on one continuous variable. It explores relationship between variables in the research.

Table 4.10: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.907[a]	.823	.294	8.23438	1.234

a. Predictors: Collection Procedure, credit evaluation, information technology system and interest rates

b. Dependent variable: Non-performing loans

Table 4.10 indicates that R Square is 0.82 which means that 82% of the changes in the level of non-performing loans are explained by the model. This means that variables in this model are not the only ones that explain non-performing loans. There are other causes not included in this model which contributes 18% of the changes on the level of non-performing loans.

4.2.11 ANOVA

Table 4.11: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	316.195	3	105.398	1.554	.519[b]
	Residual	67.805	1	67.805		
	Total	384.000	4			

a. Predictors: (Constant), Interest Rate, information technology system, credit evaluation and collection policy.

b. Dependent Variable: Non-performing loans

Table 4.11 shows F-value = 1.554 (pvalue = 0.52) which is statistically significant hence the model was good. The model can be used to predict the level of non-performing loans.

4.2.12 Variables entered/ removed

Table 4.12 below shows a summary of variables included in the regression analysis. No variable was removed and the enter method was used.

Table 4.12: Variable entered\removed

Model	Variables Entered	Variables Removed	Method
1	CP, CS, IITS, IR[b]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Non-performing loans

4.3 Discussion and Interpretation

This section discusses the results from data analysis and link with literature review.

4.3.1 Major Causes of Non-Performing Loans

Figure 4.1 below shows the causes of non-performing loans revealed from the data collected. From the information shown interest rates contributed more than any other causes while credit evaluation contributed the least. Major causes of non-performing

loans from the research are information technology system, credit evaluation methods, interest rates and collection policy. This does not mean that other causes are not important but, in this research, these are the major causes. The research reveals that all causes cited contributed the increase in non-performing loans but they differ on the level of contribution. Literature has cited many causes which have been confirmed by this research. Farlan *et al,* (2012) indicated that in an environment where economic activities are subdued, unemployment is high and where liquidity is a problem, the level of non-performing loans will tend to be high.

This research has confirmed that Zimbabwean economy has subdued economic performance with rampant company closures, high unemployment and liquidly challenges. Farhan et al, (2012) research conclusions really reflect the situations in Zimbabwe where economic challenges are contributing to financial sector problems.
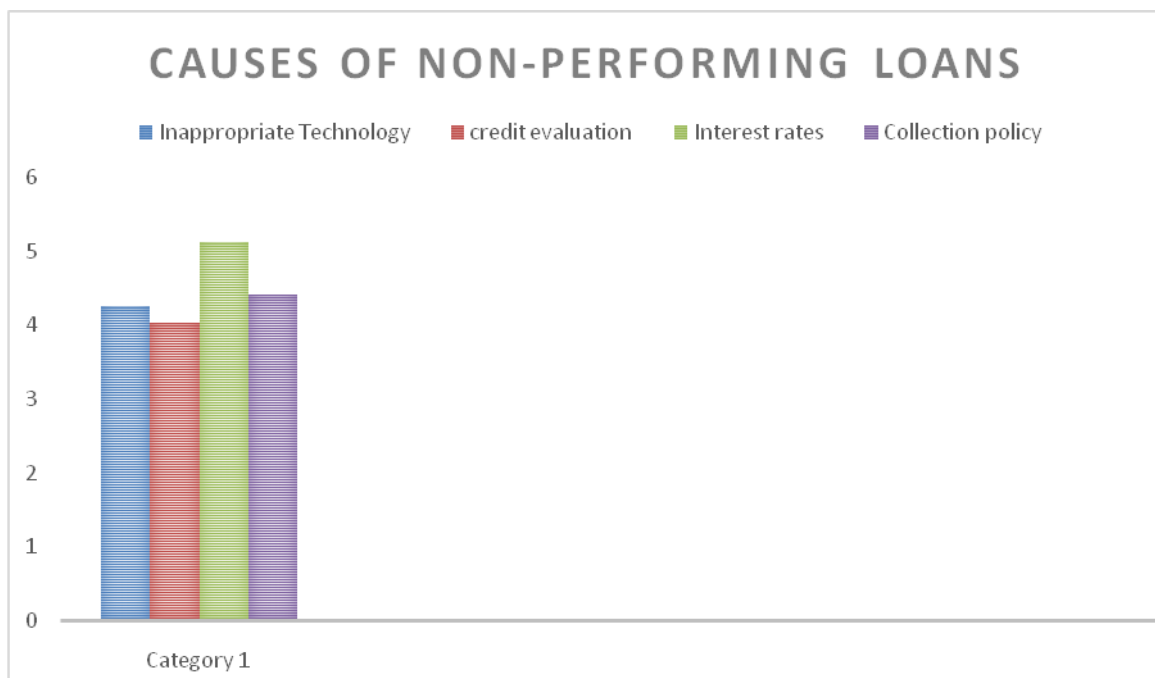
Figure 4.1: Cause of Non-performing loans.

The research results have shown that poor management in the form of bad collection policies contributes to non-performing loans in a significant way. The research also revealed that lax credit assessment contributes to nonperforming loans. All this fall under facet of poor risk management practices.

According to Moti et al, (2012), poor credit risk management practices contribute significantly to the level of non-performing loans. This research confirms that risk management practices must be improved to prevent the rise of non-performing loans.

The research has shown that high interest rate charges also contribute to nonperforming loans. Chikoko *et al,* (2012) and Vatansever & Hepşen (2013), assert that high interest rate charged on borrowers increases the level of non-performing loans. On the same note Louzis, Vouldis & Metaxas (2010), indicated that floating interest rate raised major

problem to borrowers thereby increasing the level of nonperforming loans. Moti et al, (2012), affirm that high interest rate charged on borrowers will force them to indulge in risky activities and it is usually accepted by risk borrowers. This shows that interest charged to clients must be reasonable to allow borrowers to be able to repay without considerable problems.

Information Technology system is another cause the research found to be a cause of non-performance loans. Sidi, (2018) states that, the use of in appropriate information technology system negatively affects the performance of loan. This has been supported by the study results.

4.3.2 Relationship Analysis

Literature has indicated that there is a strong positive relationship between nonperforming loans and high interest rate (Lazea & Luga, 2012). The research has supported this by confirming it on table 4.8. Badar & Javid (2013) confirm that there is a positive relationship between interest rate charged to clients and non-performing loans. The research results confirmed that there is a positive relationship between non-performing loans and interest rate changes. High interest rate will result in high non-performing loans. Messai & Jouini (2013) posited that management inefficiencies are positively related with future rise in NPLs. Research results supported this as it shows that variable like collection policy and credit evaluation has a positive relationship with non-performing loans and these variables are controlled by the management. The research also shows that there is a very strong positive relationship between Information Technology system and non-performing loans, Ngonyamo (2014) has support this by saying the use of bad information technology system can affect loan performance.

4.3.3 Analytical Model

The researcher chose regression model to evaluate the explanatory power of the variables in the model. The model was good because it was capable to explain 82% of the changes in the level of non-performing loans. This means that variables in this model are not the only ones that explain the level non-performing loans. There are other causes not included in this model which contributes 18% of the changes on the level of non-performing loans.

4.4 Summary

The chapter analyzed the research results. The response rate was overwhelming and the sample was dominated by males. The research revealed that most of the participants had undergraduate degrees and the sample had a lot of years of credit management experience which was quite good to give well informed information. Major causes of non-performing loans were found to be information technology systems, interest rates, company policy and collection policy.

Data collected was not normally distributed because the mean, median and mode are at the center that means they were no outliers in the data and the regression model applied was a good model for the data. The model was only capable to explain 82% of the variation in the independent variable. The following chapter will provide a conclusion and recommendations based on the research results articulated in this chapter.

CHAPTER 5: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the conclusion and recommendations based on the whole research document. The recommendations targeted management of financial institutions and government policy makers on causes and on possible solutions of non-performing loans.

5.2 Discussion

The research has shown that these factors namely, Information Technology System, Interest rates, collection policy and credit evaluation strongly related to high incidences of non-performing loans. The use of inappropriate IT systems has a corresponding likelihood of high non-performing loans experienced within K.C.I Management Consultants. This is because these days better IT systems increase loan management efficiency. The effectiveness of the Microfinance's Loan Portfolio Management process heavily depends on the quality of management information systems (MIS). Indeed, many of the advancements of contemporary portfolio management are the direct result of the more robust MIS that is available today. At the same time, many Microfinances are frustrated in their efforts to expand portfolio risk management by the limitations of their MIS. Loan portfolio managers and examiners should be active proponents of the continued improvement of credit-related MIS. While Microfinance's systems or technology often impedes MIS improvement, lack of understanding or poor communications between credit management and systems personnel can also do so.

The use of high interest rates interest rates can cause nonperforming loans to rise and this can be due to the fact that the Reserve Bank of Zimbabwe has increased the cost of

borrowing money. On the same note Louzis, Vouldis & Metaxas (2010) indicated that floating interest rate raised major problem to borrowers thereby increasing the level of non-performing loans. *Moti et al.,* (2012) affirm that high interest rate charged on borrowers will force them to indulge in risky activities and it is usually accepted by risk borrowers. Badar & Javid (2013) confirm that there is a positive relationship between interest rate charged to clients and non-performing loans.

Another factor was credit evaluation; the best method to deal with non-performing loans is through proper credit evaluation and risk management initiatives which prevent non-performing loans to arise (Frank et al, 2014). Organizations that strictly follow their credit policy and risk management guideline incur reasonable amount of nonperforming loans. Moti *et al.,* (2012) posited that lending organizations must shift from security-based lending to full repayment assessment ability of the borrower. And the study showed also showed that collection policy can cause non-performing loans to rise.

5.3 Conclusions

The research concluded that one of the major causes of non-performing loans is Information technology systems. This is supported by Ngonyamo (2014) as the author states that, the use of in appropriate information technology system negatively affects the performance of loan. Loan management system is one of the most important systems in MFIs and must not be overlooked. The study showed that there is a very strong positive relationship between non-performing loans and Information Technology systems meaning better IT systems increase loan management efficiency.

The research has also shown that Credit Evaluation can also add to non-performing loans even though it's not as high as others, the contribution is significant. The study shows a weak positive relationship between non-performing loans and Credit evaluation. RBZ (2018) supports the same notion as it states that the way a number of Microfinances ended up with many non-performing loans is due to incomplete, poor and unprofessional credit risk assessment and evaluation.

The study showed that there is a strong positive relationship between non-performing loans and Interest Rate, this means those exorbitant interest rates being charged to clients in Zimbabwe are contributing to the increase of non-performing loans especially at K.C.I Management Consultant. This is supported by Ngonyamo (2014) who theorized that Microfinances face insolvency due to falling asset values when Microfinance borrowers are unable to repay their debt owing to high interest rates.

The study showed that there is a strong positive relationship between non-performing loans and Collection policy. This means that poor collection policies can increase non-performing loans and good collection policies which include collection methods and debt recovery methods can reduce non-performing loans. Bhattarai (2015) supports the same results as the author believes that the collection effort should, therefore aim at accelerating collections from slow payers and reducing bad debt losses.

The research revealed several methods that can be used to reduce on-performing loans. Microfinance institutions can use state of art IT Systems to improve efficiency and manage the loan book well. Also, the use of better collection policies can reduce non-performing loans as suggested by the regression equation. Credit evaluation can also

help in strict screening of applicants and close monitoring of the loan book to manage nonperforming loans.

5.4 Implications

ICTS challenges were a problem that was noted. Failure to effectively run a client database can make the process of NPL management difficult. The microfinance's effort to thwart the challenge of NPLs should be sufficiently supported by an effective internal ICTS system which aids the proper NPL reporting.

A credit policy should be built on three major variables and these include credit terms, credit standards and collection procedures (Loona & Zhong, 2014, Moti et al, 2012). Loona & Zhong, (2014) defines a credit policy as a set of guidelines designed to minimize costs associated with credit while maximizing the benefits from it. He also notes that a good credit policy should be one that ensures operational consistency and adherence to uniform and sound practices. A good credit policy should involve effective initiation, analysis, credit monitoring and evaluation. A credit policy is one of the essential tools in an organization. It is a primary tool as well as a procedure established to provide management with reasonable assurance that the credit system is functioning as it should. Therefore, if a credit policy does not sufficiently guide the users on the management of Non-Performing loans challenges will arise.

5.5 Recommendations

The research made the following managerial and policy recommendations in an effort to reduce the problem of non-performing loans. These recommendations were based on research findings.

5.5. 1 Policy Recommendations

a) The government should provide special dispensation for cases of this nature to get priority in the courts of law. More judges must be allocated to sections dealing with bad debts.

b) Microfinance organizations should have detailed provisioning policies and procedures covering criteria for setting provisions, methodology for estimating provisions, procedures for collateral valuation, procedures for review of adequacy of provisions, and mechanism for reporting information to management on a periodic basis.

c) Government is encouraged to loosen the judiciary system to make it less bureaucratic so that the length of time it takes to recover loans is seriously reduced.

d) There is need to urgently setting up of a credit bureau that will facilitate the dissemination of credit information.

5.5.2 Managerial Recommendations

a) Research results have shown that the best methods to manage nonperforming loans involve upgrading Information and Communication Technology (ICT) in order to be able to implement models that will mitigate risks arising out of the environmental changes and excellent risk management through screening of applicants and close monitoring of the loan portfolio. This means that it is important to management of KCI

Management Consultants to avoid creating non-performing loans because in most cases it is expensive to follow up bad debt and recovery is very slow. Management should strive to have clean loan book.

    b) Management should present their challenges in debt recovery to the RBZ so that a common solution to the financial sector problem is implemented. The RBZ has the power to lobby the government to put laws that support the financial services sector.

c) Policies that guide lending business must be explicit and management must ensure that they are followed and they must be changed frequently to meet the changing business environment.

d) KCI Management Consultants managers must ensure that all causes of non-performing loans cited in this research are monitored to reduce the level of non-performing loans in Zimbabwe.

e) KCI Management Consultants need to come up with workout strategies that clearly define how different types of loans at different stages are dealt to be dealt with.

f) Credit analysts to be trained in credit intelligence to equip them with adequate and efficient skills in loan management.

g) KCI Management Consultants should endeavor to embrace KYC know your customer before the credit can be sanctioned. This are the means employed to know and understand all the particulars and character of the borrower before giving out the money. It can be achieved through scrutinizing the previous banking's from the statements, employment or the business transactions from the borrower. KCI Management

Consultants should not mainly hang on collateral for them to secure the loans so that they can lend.

5.6 Suggestions for Further Research

The regression model that was developed in this research is only capable of explaining 82% of the variations in the level of non-performing loans. This means that there are other independent variables to be explored that explain the independent variable which requires further research. It has been revealed in the research that financial institutions are using several ways to reduce non-performing loans but the level of non-performing loans is still very high. This means that a research on the effectiveness of these methods is necessary.

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APPENDICES

Appendix I: Questionnaire Survey Instrument

SECTION A: General information

1.What is your gender?

Male =1 [　　] Female =2 [　　]

2. Age ...………．

3.What is your position at the Organization?

Credit [　　] controller [　　] Loan officer

4.What is your highest academic qualification?

1	Doctorate Degree	
2	Master's Degree	
3	Undergraduate Degree	
4	Diploma	
5	A' Level	
6	O' Level	
7	Other (Specify)	

5.Indicate the number of years in the credit management department.

Less than 1 ☐ year   1-<5 ☐ years   5-<10 ☐ years

6. What is the level of non-performing loans within your organization as a percentage of the total loan   book?

Less   than ☐ 5% Between 5% and ☐ 10% More than ☐ 10%

Section B

1. To what extent does the use of inappropriate information technology system affect non-   performing loans,

Moderate ☐ high, low, not sure ☐

ICT systems on non –performing loans

To what extent does each of the following affect non-performing loans	Not at all	To a limited extent	Not sure	To a Certain Extent	To a Larger Extent
Poor Information Technology infrastructure					
Use of outdated systems					
Lack of a customized ICT system to fit organizational loan management					

2. To what extent does credit evaluation affect non-performing loans,

Moderate   high, low, ☐ not sure

☐　　　☐　　　☐

Credit Evaluation on non-performing loans

To what extent does each of the following affect non-performing loans	Not at all	To a limited extent	Not sure	To a Certain Extent	To a Larger Extent
Character of borrower					
Capacity					
Collateral					

3. To what extent does interest rate affect non-performing loans

not ☐ sure ☐　　　☐　　　☐ Moderate high, low,

Interest rate Issues on non-performing loans

To what extent does each of the following affect non-performing loans	Not at all	To a limited extent	Not sure	To a Certain Extent	To a Larger Extent
High interest rate charged by Microfinance Institutions influence the					

level of non-performing loans.					
The cost of funding influences the level of non-performing loans					

4. Collection policy on non-performing loans

To what extent does each of the following affect non-performing loans	Not at all	To a limited extent	Not sure	To a Certain Extent	To a Larger Extent
Lenient collection policy					
Short tenure					

Thank you for your Participation

Appendix II: INFORMED CONSENT

My name is Flannergun Rufasha, an Executive master's in business administration (EMBA) student from Africa University (AU). I am carrying out a study on the Relationship between non-performing loans and their causes, a case of KCI Management Consultants in Harare. I am kindly asking you to participate in this study by answering/filling in your free responses in the attached questionnaire.

What you should know about the study:

Purpose of the study:

The purpose of the study is to determine the causes of non-performing loans and devise better strategies for managing non-performing loans assistance.

Procedure for Recruitment

You were selected to participant in the study because you are in the credit management department and the entire study will involve 100 participants.

Procedures and duration

If you decide to participate you will be handed the questionnaire and fill it in as previously indicated. It is expected that this will take about 10 minutes to complete this activity.

Procedure for sharing results

The copy of the research results will be given to K.C.I Management Consultants/s management so that they will disseminate to you since you would have participated in the research.

Risks and discomforts

No risks and discomforts have been identified to be associated with this study activity.

Benefits and/or compensation

The research will help K.C.I Management Consultants with better strategies of managing non-performing loans. Study will also help credit personnel employees to know what is required of them to come up with effective credit evaluation policies. The research will help the financial regulators when formulating policy that relates to the regulatory environment of the country. No payment or compensation or reimbursement will be awarded to participants.

Confidentiality

Any information that you give in this study activity that can be linked to your name will not be released without your written permission. Your name and identification will not be asked for in the questionnaire.

Voluntary participation

Participation in this study is voluntary. If you choose not to participate in this study, your decision will not affect their future relationship with KCI Management Consultants. If you chose to participate, you are free to withdraw your consent and to discontinue participation without penalty.

Offer to answer questions

Before you sign this form, please ask any questions on any aspect of this study that is unclear to you. You may take as much time as necessary to think it over.

Authorization

If you have decided to participate in this study, please sign this form in the space provide below as an indication that you have read and understood the information provided above and have agreed to participate.

--   --------------------------------

Name of Research Participant (please print)   Date

Signature of Research Participant or legally authorized representative

If you have any questions concerning this study or consent form beyond those answered by the researcher including questions about the research, your rights as a research participant, or if you feel that you have been treated unfairly and would like to talk to someone other than the researcher, please feel free to contact the Africa University Research Ethics Committee on telephone (020) 60075 or 60026 extension 1156 email aurec@africau.edu

Name of Researcher FLANNERGUN RUFASHA

Appendix III: Africa University Research Ethics Committee Approval

AFRICA UNIVERSITY
RESEARCH ETHICS
COMMITTEE (AUREC)

AFRICA
UNIVERSITY
(A United Methodist-Related Institution)
INVESTING IN AFRICA'S FUTURE

P.O. Box 1320 Mutare, Zimbabwe, Off Nyanga Road, Old Mutare. Tel (+263-20) 60075/60026/61611 Fax (+263-20) 61788 website. www.africau.edu

Ref: AU1158/19

8 January, 2020

F. Rufasha
C/O CBPLG
Africa University
Box 1320
Mutare

RE: MANAGEMENT OF NON – PERFORMING LOANS: A CASE OF K.C.I
MANAGEMENT CONSULTANT

Thank you for the above titled proposal that you submitted to the Africa University Research Ethics Committee for review. Please be advised that AUREC has reviewed and approved your application to conduct the above research.

The approval is based on the following.
   a) Research proposal
   b) Questionnaires
   c) Informed consent form
   • **APPROVAL NUMBER**   AUREC1158/19
This number should be used on all correspondences, consent forms, and appropriate documents.
   • **AUREC MEETING DATE**   NA
   • **APPROVAL DATE**   January 8, 2020
   • **EXPIRATION DATE**   January 8, 2021
   • **TYPE OF MEETING**   Expedited
After the expiration date this research may only continue upon renewal. For purposes of renewal, a progress report on a standard AUREC form should be submitted a month before expiration date.
   • **SERIOUS ADVERSE EVENTS** All serious problems having to do with subject safety must be reported to AUREC within 3 working days on standard AUREC form.
   • **MODIFICATIONS** Prior AUREC approval is required before implementing any changes in the proposal (including changes in the consent documents)
   • **TERMINATION OF STUDY** Upon termination of the study a report has to be submitted to AUREC.

Yours Faithfully

MARY CHINZOU – A/AUREC ADMINISTRATOR
FOR CHAIRPERSON, AFRICA UNIVERSITY RESEARCH ETHICS COMMITTEE

AFRICA UNIVERSITY
RESEARCH ETHICS COMMITTEE (AUREC)

0 8 JAN 2020

APPROVED
P.O. BOX 1320 MUTARE, ZIMBABWE
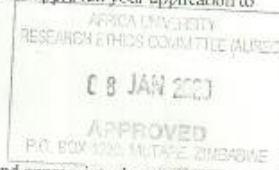
Appendix IV: Kenneth Consultants International Approval letter

K.C.I
Management
Consultants
(Pvt) Ltd
Registered Microfinancier

94 McChlery Avenue
Eastlea
Harare
0772 379 949

28 JUNE 2019

AFRICA UNIVESITY

College of Business, Peace, Leadership and Governance

MUTARE

Dear MR FLANNERGUN RUFASHA

RE: APPROVAL FOR CONDUCTING STUDY

The above matters please note that we have approved your request to carry out your research at our organization, entitled: "**Management of Non-performing loans, A Case Study of K.C.I Management Consultants.**

Please contact the undersigned on 0774362461 for more information.

Yours faithfully

KCI MANAGEMENT CONSULTANTS
28 JUN 2019
94 McCHLERY AVENUE
EASTLEA, HARARE

SHAMISO MAGAVADANI

(Human Resource Manager)

Page 1 of 1

Appendix V: Urkund Analysis Result