UNIVERSITY OF CAPE COAST

DETERMINANTS OF NON PERFORMING LOANS OF MICROFINANCE

COMPANIES IN GHANA

PAUL LAWER TETTEY

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GHANA

BY

PAUL LAWER TETTEY

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DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature: …………………………Date: …………………………..

Name: Paul LawerTettey

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Supervisor's Signature:……………………………Date: ……………………….

Name: Dr. John Gatsi

ABSTRACT

The study examined the determinants of non-performing loans of microfinance companies in Ghana. The qualitative approach was adopted for the study. Through the use of purposive sampling technique, 10loan officerswere selected to participate in the study. The structured interview guide was used to gather the requisite data for the study. The data were analyzed through the thematic approach based on the various themes according to the research questions that guided the study.The study among other things found out that non-performing loans were high around 2011 through to 2013, however, were less in 2010, 2014 and 2015. The year 2015 observed a massive decline indicating that the MFIs have taking proactive measures to help recover majority of their loans as mostly agree in the loan agreement. Also, the study found that external and internal factors such as poor management and economic downturns accounted for majority of non-performing loans in Ghana. Once more, there was a statistically significant negative effect of inflation on non-performing loans.However, no significant effect was observed by interest rate on non-performing loans.The study recommended that,NPL Management of MFIs should acquire the technical skills and managerial expertise needs to examine the trend and incidence of non-performing loans so that critical measures can be taken in that effect. Also, government and other policy makers should help invest more in growth enhancing sectors of the economy so that government loans can be repaid on time to MFIs. Again, MFIs should consider international competivenessin order to impact on abilities of borrowers to several exports and imports sectors of the economy so that they can repay loans.

ACKNOWLEDGEMENTS

DEDICATION

I dedicate this work to my loving wife, Ms Jennifer OpokuNti, who has been with

me throughout the programme.

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INTRODUCTION

Background to the Study

The International Monetary Fund (IMF, 2009) iterates that a non-performing loan is any loan in which interest and principal payments are more than 90 days overdue; or more than90 days' worth of interest has been refinanced. In the view of Rawlin,Shwetha,Sharan and Pradeep(2012), the principal aim of any business is to make profits and that is why any asset created in conduction of business should generate income for the business. In this regard, banks do grant loans and advances to individuals, business organizations as well as government in order to enable them operate on investment and development activities as a means of contributing toward the economic development of a country in general and aiding their growth in particular.

Rawlin et al. (2012) stipulates that, deposits in banks are offset by higher margins from creation of credits as loans. However, if such assets do not generate any income, the banks` ability to repay the deposit amount on the due date would be in question. This is an indication that, the banks with such asset would become weak and such weak banks lose faith and confidence of customers". Ultimately, "unrecoverable amounts of loans are written off as non-performing loan (Mallick et al. as cited in Rawlin et al., 2012). The Bank of Ghana also classify loan as Non Performing when it is overdue for 90 days or more. In Ghana, Microfinance Institutions (MFIs) currently provide financial services to an estimated 15 percent

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of the country's total population as compared with 10 percent for the commercial banking sector (Obuobi& Polio, 2010).

The financial sector (Banking and non-banking) plays a very important role in every economy. "There is evidence to suggest that well-functioning lending institutions help to accelerate economic growth and conversely, poorly functioning ones impede progress and aggravate poverty" (Barth, 2004). A key function of most banking and Microfinance institutions is lending with interest incomes on loans and advances constituting a large source of revenue for these financial institutions. According to GHAMFIN Annual Report (2014), the total NPLs of the MFI stood at 6% in 2012 and by 2013, it has shot up to 9%. With loans and Advances making over 50% of the total operating assets of MFIs according to Bank of Ghana annual report, if the trend of the incidence of NPLs continues, it will have a huge negative impact on the operations of the MFIs in Ghana.

According to Berge (2007), "although credit risk has always had the highest importance in bank's management in the Sub-Saharan region, financial crisis and recession have made non-performing loans one of the major concerns for both bank managers and regulatory authorities in developing countries". The recent crisis in the Sub-Saharan region, as well as others that occurred in the past, confirm that bad loan portfolio is one of the most important factors of fragility of a specific bank and banking system, and could produce negative effects on the overall economic activity (Bruneau, Bandl,& De Amri, 2012). According to Bruneau et al. (2012), "at high level of non-performing loans, a bank's net worth

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is exposed to high risk and this could lead to the bank's insolvency". This means that, even for banks that do not go bust, non-performing loans negatively influence their overall performance. That notwithstanding, should the problem of non-performing loans arise in a substantial part of the banking sector, financial stability of microfinance institutions (MFIs) and the whole sector at large is jeopardized hence, the need to pay much attention and give consideration to what causes non-performing loan.

Wondimagegnehu (2012) conducted a study on determinants of non-performing loans and found that poor credit assessment, unfair competition among banks, failed loan monitoring, underdeveloped credit culture, lenient credit terms and conditions, compromised integrity, aggressive lending, weak institutional capacity, fund diversion for unexpected purposes and overdue financing had an effect on the occurrence of Non-performing loans. Furthermore, Mileris (2012); Tomak (2013); Ahmad and Bashir (2013) and Shingjerji (2013) stipulated that non-performing loans are determined by different factors which include level of Gross Domestic Product, capital adequacy, inflation, bank size, unemployment, volume of deposit, return on equity, total loan, liquidity, return on asset, excessive lending, interest rate and credit growth.

That notwithstanding, Louzis, Vouldisand Metaxas (2012) assert that, "the uncertainty created by non-performing loans makes difficult for banks to allocate funds efficiently from surplus economic units to deficit economic units with productive investment opportunities". The banks are unwilling to take new credit risk and to lend funds. This results in an excess of demand for loans, especially

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those of enterprises and microfinance institutions (Louzis et al., 2012). In this case, the subsequent credit rationing leads to the decline of economic activity.

From the findings of a study conducted by Keeton and Morris (2012) it was revealed that loan losses are highly positively related to adverse economic conditions. The findings of Keeton and Morris (2012) were confirmed by Gavin and Hausmann (2015) who examined the relation between macroeconomic developments of and banking crises in Latin America. Furthermore, Fofack (2005) investigated the macroeconomic factors that led to the rise of non-performing loans in Sub-Saharan Africa in the 1990s and concluded that, exchange rates, interest rate, GDP per capita are robust significant macroeconomic factors that determine non-performing loans of microfinance companies. However, Festic and Beko (2008) in the study stipulated that non-performing loans can be curbed by improving economic conditions through the growth of real Gross Domestic Product.

Moreover, the issue of non-performing loans has gained increased attention in recent years because of its adverse effects on the banking and non-banking financial institutions especially, microfinance institutions and the country's economy as a whole (Berge, 2007). The immediate consequences of non-performing loans are the reduction in profitability through disposal costs like provisions for credit losses and direct write-offs for bad debts and shrinking of loanable funds. That notwithstanding, Bofondi and Ropele (2011) assert that, non-performing loans are significantly related to annual growth rates, unemployment rate and interest rates. That aside, large amounts of non-performing loans in the

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banking and non-banking financial system have at many times threatened the failure and actually collapsed many banks and microfinance institutions.

Having explained that, many researches on the causes of bank failure show that poor quality of loan portfolio is statistically a major predictor of insolvency (Dermigue-Kunt, 1989; Barr and Siems, 1994) with failing banks usually having high levels of non-performing loans prior to failure. Capario and Klingebiel (1996) indicated that non-performing loans represented 75% of total loan assets in Indonesia, which led to the collapse of over sixty banks in 1997. Drawing inference in Ghanaian banks and microfinance institutions are not insulated from the problem of delinquent loans (Non-performing loans) hence, the purpose for conducting this study.

Statement of the Problem

Despite the fact that loan is a bank's major source of income and constitutes its major assets, it is considered a risky area of the industry. This explains why credit risk management is one of the most critical risk management activities carried out by firms in the financial services industry. According to Wondimagegnehu (2012), out of all the risks banks face, credit risk is considered the most lethal and this is because bad debts impair banks' profit.

Loan portfolio constitutes the largest operating assets and source of revenue of most financial institutions (Proctor, 2003). However, some of the loans given out become non-performing and adversely affect the profitability and overall financial performance of the lending institutions. Many lending institutions in Ghana are confronted with the challenge of rising non-performing

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loan portfolios despite efforts at stemming the tide. Microfinance companies are part of the institutions with a deteriorating trend in the health of their loan portfolio in recent years; the GHAMFIN Annual Report (2014) shows that non-performing loan ratio went up from 1.5% in 2010 to 2.8% in 2011 and by the year 2013, the NPL ratio has reached 4.3% after a slight dip in 2012. The situation calls for an effective strategy to remedy it before it gets out of hand and this research work seeks among other objectives to come up with recommendations that will help arrest this deteriorating trend or at least help reduce the rate of loan default in MFIs. Many researchers wrote on the impact of Non-Performing Loans on the operations of Banks but these researchers failed to address the causes of NPLs in the Microfinance Companies. It is important to know the modus operandi of the MFIs in credit administration is slightly different from the Banks and thus require knowledge through a study to identify the causes of Non-Performing Loans in this sub-sector.

In Ghana, after the announcement by the Central Bank to regularise the operations of the Microfinance companies through licensing, more than 400 companies has been licensed with over 300 yet to be licensed (BoGReport, 2015). The Bank of Ghana noticing the importance of the Microfinance sub-sector dedicated a unit called "The Other Financial Services Supervisory Department" to provide supervisory role. This growing interest in the Microfinance sub-sector brought about the need to undertake this study to identify the macroeconomic factors that contribute to the incidence of non-performing loans in Microfinance Institutions in Ghana.

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Objective of the Study

The general objective of the study is to identify the macroeconomic factors that contribute to the incidence of non-performing loans in microfinance companies in Ghana. Specifically, the objectives are to:

i. determine the trend of incidence of NPLs in a selected MFI in Ghana.

ii. identifyfactors accounting for the incidence of non-performing loans in microfinance companies.

iii. assess the effect of interest rate onnon-performing loans.

iv. assess the effect of inflation onnon-performing loans.

Research Questions

The research work seeks to find answers to the following questions:

i. What has been the trend of NPLs in the selected companies in the last five years?

ii. What are the causes of the incidence of NPLs in microfinance companies in Ghana?

iii. What effect does Interest rate has on non-performing loan of microfinance companies?

iv. What effect does inflation have on performance of loans in microfinance companies?

Significance of the Study

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The loan portfolios of the lending institutions are major assets that produce a significant amount of interest income. It plays a critical role in determining the financial performance of the MFIs and it can therefore be said that the good health of the loan of the MFI is directly related to how its financial performance will be. In view of the importance of the health of the loan portfolio, it is vital that a study be conducted to identify the problems that negatively affect the performance of the MFIs. The outcome of this project will enable Microfinance Companies adopt workable strategies to control the problem of a growing non-performing loan portfolio in the institution and thereby improve its financial performance and profitability. Secondly, the project will be of benefit to the Ghanaian banking and non-banking financial sectors as a whole since the financial (Lending institutions) in the country operate within the same environment and deal with customers of similar characteristics.

The study can also serve as a reference material for other related research works yet to be done. Thus, the study would contribute greatly to the progress of microfinance sector which play animportant role in the economy. This is because notwithstanding the challenges, microfinance has emerged worldwide as one of the effective strategies in poverty reduction with the potential for far-reaching impact in transforming the lives of the poor people.

Scope of the Study

It is an undisputable fact that, there are a lot of public sector microfinance companies in Ghana. In that same vein, there are a lot of factors contributing to non-performing loans in microfinance companies in Ghana. However, the study

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focused on examining the trend of incidence of NPLs in the selected MFIs in Ghana; identifyingfactors accounting for the incidence of non-performing loans in microfinance companies; assessing the effect of interest rate on non-performing loans and assessing the effect of inflation on non-performing loans.

Limitations

Among the major constraints in this study was time. Looking at the short period required for the completion of the work, the case study approach was adopted. Even though the MFIs in the country share common characteristics and face similar challenges, there is still the possibility that some aspects regarding the topic may not be discussed if those aspects are peculiar with the MFIs that were not covered in the study. To reduce this, data from Bank of Ghana will be relied upon for the analysis. Limited information will be gathered from some selected Microfinance Institutions in Ghana. Again, another limitation was access to information as not much research has been done with regards to MFIs. Bank of Ghana and some of the financial institutions did not readily disclose information to researchers for fear of breach of Oath of Secrecy (Duty of confidentiality). These constraints was dealt with by relying on published annual reports and financial statements and also assuring the respondents that the information was mainly for academic purposes and that their identities will not be disclosed anywhere.

Organisation of the Study

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The study is organized into five chapters. The first chapter is made up of the background of the study, the statement of the problem, the research questions, objectives of the study, the significance of the study, scope and limitation of the study and the organization of the study. Chapter two reviews literature on the Evolution of microfinance sector, definitions and causes of NPLs, performing and NPLs, Loan classification and provisioning, implication of NPLs for MFIs, Reducing the incidence of NPL and the challenges facing microfinance schemes. Data for the work is obtained from sources such as Bank of Ghana reports, Microfinance Companies' financial statements and annual reports, credit policy manual and other pertinent documents. Additionally, interviews would be conducted, and questionnaires administered to relevant persons within the institution. Data obtained is analysed using quantitative method.

Chapter three describes the Research Methodology and profile of study area. Here, the target population, the sample size and sampling technique, the research instrument and data collection procedures are outlined. The data analysis, interpretation, and discussions are contained in Chapter four. Chapter five provides the Summary, Conclusions and Recommendations of the study.

Introduction

The literature review covers relevant literature with the aim of gaining insight into the factors that cause loans default within Banks & Non-Bank Financial Institutions in Ghana. It covers definitions and explanation of terminologies pertaining to credit, credit risk, non-performing and under-performing loans. This literature review is important because it seeks to help answer questions in the study. There have also been studies that attempt to determine the relation between NPLs and other macroeconomic variables such as economic growth, and the extent to which NPLs affect microcredit. This chapter would review some of these studies and discuss theoretical foundation of this study.

Theoretical Framework: Credit Rationing Theory

This Credit Rationingtheory submits that lenders depend on prevailing interest rates and available collateral or substitutes for collaterals to control the amount of credit they give out to borrowers. Decision making by lenders to either lend or not to lend is conditional on the kind of surety the borrowers present to them. To avoid riskier investment and the chances of the borrowers not fulfilling their credit obligations, lenders give out loans at low interest rates. The provision of loans based on other alternatives to collateral provides borrowers with an avenue of defaulting from repaying their loans since their relationship with the lender is not as strong when collateral is involved. The credit rationing theory

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suggests that interest rate is very significant in determining the amount a financial institution will be willing to lend and determine the ability of the borrower to repay the loan.

Conceptual Definitions

Performing Loans

Legally, a credit facility is defined to mean a contractual promise between two parties where one party, the creditor agrees to provide a sum of money to a debtor, who in turn promises to return the said amount to the creditor either in one lump or in instalments over a specified period of time. The agreement may include provision of additional payment of rental charges on the funds advanced to the borrower (debtor) for the time the funds are in the hands of the debtor. The additional payments that are in the form of interest charges, processing fees, commissions, monitoring fees, among others are usually paid in addition to the principal sum lent. Indeed, these additional payments if made in accordance with the covenants of the credit facility constitute the interest income to the lender or creditor.

A loan/credit facility may therefore be considered as performing if payments of both the principal and interest charges are up to date as agreed between the lender and the borrower. Per the Bank of Ghana (BoG) classification, loans are considered current if the payment of principal and interest are up to date. It goes further to stipulate that an overdraft is classified as current or performing if there are regular activities (swing) in the account with no sign of hard core debt build-up (BoG, 2008). It can therefore be deduced that loans that are up to date in

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terms of principal and interest payment are described as performing loans and they constitute the healthy asset portfolio.

Non-Performing Loans (NPLs)

The term NPLsis used interchangeably with Bad loans and impaired loans as identified in Fofack (2005). Berger and De young (1997) also describes these types of loans as "problem loans" In broad context, loans that are outstanding in both interest and principal for a period of time contrary to terms and conditions spelt out in the loan agreement are considered as non-performing loans. Available literature gives varied descriptions of non-performing loans. Some researchers observe that whilst certain countries use quantitative criteria, such as the number of days the credit facility is overdue, others rely on qualitative criteria such as information about the customer's financial status and managementjudgment about future payments (Bloem&Gorter, 2001).

Alton and Hazen (2001) described non-performing loans as loans that are ninety days or more past due or no longer accruing interest. Caprio and Klingebiel(as cited in Fofack, 2005), consider non-performing loans as loans which for a relatively long period of time do not generate income, that is both the principal and interest on these loans remain unpaid for at least 90 days. A non-performing loan may also refer to one that is not earning income and full payment of principal and interest is no longer anticipated, principal or interest is 90 days or more or the maturity date has passed and payment in full has not been made.

In their view Islam, Shil and Mannan, (2008), a NPL is one that cannot be recovered within a stipulated time frame. Thus, the qualification of a loan as

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performing or not is a prerogative of the lending institution. However, a bad loan as it is sometimes called (Fofack, 2005), is generally defined as a loan which is ninety days or more past due or no longer accruing interest (Alton and Hazen, 2001; Guy, 2011). That is, when the principal and or interest on a loan have been left unpaid for at least ninety days, it is considered nonperforming.

NPLs are problematic, and can be quiet toxic to the growth of a financial institution (Bexley&Nenninger, 2012).Once a loan is nonperforming, the chances that it will be paid in full are usually low (Guy, 2011). Once the debtor starts making payments again on a NPL, it becomes a re-performing loan, even if the full debt has not been fully paid. For instance, the NPL and under-performing loans in uniCredit Ghana Ltd have frequently necessitated restructuring of repayment terms, which has resulted in liquidity challenges for the institution, impacting negatively on customer satisfaction and retention.

The NPLs of the banking industry in Ghana were 12.3 percent in July 2014 as against 12.9% in July 2013. Similarly, loan loss provision to gross loans also declined to 5.3 percent in July 2014 as against 5.8 percent in July 2013. The ratio of NPL net of provisions to capital of 12 percent in July 2014 was however deterioration over the July 2013 position of 10.3 percent. The adjusted NPL ratio (i.e. NPLs ratio minus the loss category) of 5.3 percent in July 2013 remained unchanged in July 2014 (BoG Report, 2015).

Causes of Loan Default/ Non- Performing Loans

In Africa and Ghana in particular, Banks and other financial institutions serve as a safe place for one's money. As others deposit money for safe keeping,

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others request for money for several reasons, including business development. Thus, it is the responsibility of the credit manager to qualify the borrower to determine the risk in issuing that loan (Boahene, Dasah&Agyei, 2012). Concerns include the capacity of the borrower to repair the loan, as well as the purpose of the loan among other enquiries.

A good risk assessment goes a long way to mitigate cases of default, i.e. Nonperforming loans. However, other factors have been noted as contributors to the nonperformance of loans. Findings from studies by Richard (2011) indicate that in Africa, NPLs in banks can be attributed to *moral hazards*.Results indicated that bank owners/managers succumb to inappropriate lending strategies as a result of inducements and or bribes. As a result, loans are issued at "high interest rates to borrowers in the most risky segments of the credit market" (Mabvure, Gwangwava, Faitira, Mutibvu&Kamoyo, 2012; p. 471).

In Ghana, causes of loan default may include; Economic conditions; thus a change in national income and unemployment will have impact on credit risk through change in business cycle, exchange rate, interest rate, credit availability and credit quality. Liquidity crunch or financial problems has the ability to impact borrowers' ability to fulfill their obligation. In addition legal and regulatory change could cause financial institutions to change how they oversee a transaction, as well as the quality and ability of debt collection.

Again, competition among financial institutions in terms of growth, profitability and the desire to be a market leader have the ability to cause financial institutions to lower their standards or improperly price their loan products. This

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could result in higher cost of increasing non- performing loans.Competence of staff could also account for loan default in banks. Credit officers without the necessary expertise in the activities they are responsible for, can lead to poor lending practice, ineffective administration, and eventually, loss to financial institutions, exchange rates, including past due credits, credit concentrations, and analysis of problem loans.

Another factor could be inappropriate assessment of credit quality. This problem may be a result of competitive pressure and credit growth as they tend to put a time constraint on getting accurate data. Moreover, rapid growth and/or entry into new markets can tempt the management to lend without sufficient financial and economic analysis. To facilitate quicker decision making, management may support credit decisions by using simple indicators of credit quality such as borrowers' characteristics, current and expected value of collateral or support of a parent company or affiliated companies. .

Lending over and above the collateral is also another factor. When credits are granted for purchasing or developing assets that are used as collateral, many financial institutions cannot assess the correlation between borrowers' financial condition and income generating ability and price changes and liquidity of the market for the collateral.

Various Categories of Microfinance Institutions in Ghana

In 2010, the Bank of Ghana came out with a circular classifying the microfinance operations into various categories. The circular placed Savings and Loans Companies and Rural Banks into tier one microfinance institution. The tier

two is made up deposit-taking microfinance institution. The tier comprises non deposit taking microfinance institutions such as Financial Non-Governmental Organizations (FNGOs). The tier four is made up susu collectors, both individual susu collectors and the susucompanies.The key stakeholders of Microfinance institutions in Ghana are the Rural /Community Banks, Savings & Loans companies, Microfinance Institutions, Credit Unions and Financial Non-Governmental Organizations.

Rural Banks

As part of the Government and Central Bank efforts to promote financial inclusion, rural banking was instituted to get offer banking services to rural communities who do not have access to commercial banking in the country. The concept gives ownership of these Rural Banks to the members of the community. They are registered under the Company's Code and are licensed by the Bank of Ghana to engage in the business of banking in accordance with the Banking Act, 2004 (Act 673). Being unit banks, they are not allowed to open branches but are permitted to open agencies within their catchments areas for the purpose of mobilizing deposits The rural banking in Ghana has been largely successful in providing micro-credit to scale traders and farmers within the rural communities.

Savings and Loans Companies

Savings and loans companies (S&Ls)are deposit-taking financial institutions regulated by the Bank of Ghana under the Non- Bank Financial Institution (NBFI) Law 1993 (PNDCL 328), with a minimum capital requirement much lower than that of the universal banks but above that for rural and

community banks.The advent of the NBFI Law gave rise to a rapid growth and transformation of some Financial Non-GovernmentalOrganizations (FNGOs) into savings and loans companies operating in urban and peri-urban areas in the country.

They serve mostly the economic active informal unbanked populations and offer tailored products to suit this category of the population. They are restricted to a limited range of financial services compared to universal banks, mostly mobilizing deposit, provision of credit to low income clients and SMEs, money transfers and financial literacy. They utilize microfinance methodologies to serve most of their clients in the peri-urban areas with an average loan size higher than the other category of microfinance institutions.

Microfinance Institutions

Microfinance consists primarily of providing financial services including, savings, micro-credit, micro insurance, micro leasing and transfers in relatively small transactions designed to be accessible to micro-enterprises and to low-income households. Microfinance may be complemented by non-financial services, especially training, to improve the ability of clients to utilize the facilities effectively.

According to Bank of Ghana "operating rules and guidelines for Microfinance Institutions" issued in 2010, Microfinance Institutions were classified into deposit taking and non-deposit taking. Deposit taking by MFIs are required to maintain higher capital levels relative to non-deposit taking

institutions. This is to ensure deposit taking MFIs are better resourced to prevent the risk of MFIs using customers' deposits for capital expenditure.

Credit Unions

Credit unions are registered by the Department of Co-operatives as cooperative thrift societies in Ghana and are permitted to accept deposits and give loans to their members only. It is worth noting that the first Credit Union in Africa was established in the Northern part of Ghana in 1955 by the Canadian Catholic missionaries. Credit unions have an established association commonly referred to as CUA. The association serves as a self-regulatory apex body for its affiliates.

Financial Non-Governmental Organisations

Financial Non-Governmental Organisations (FNGOs) are incorporated as companies limited by guarantee under the Companies Code. Hither to year 2010, these companies were not licensed by the Central Bank of Ghana but the circular issued in that year brought the operations of the FNGOs under the tier three microfinance institutions. This implies that they cannot accept deposits but are allowed to advance credit to the general public. Their activities are mostly mission-driven, and are especially active in poor communities. Their poverty reduction focus leads most of them to provide multiple services including microcredit, which remains their main business, to poor clients though mostly on a limited scale. These funds are mostly from donors, social investors and government programmes. Some of them however operate the susu scheme which allows individuals to save small amounts on a daily or weekly basis.

Effect of Microfinance on Development

Microfinance encompasses the provision of financial services and the management of small amounts of money through a range of products and a system of intermediary functions that are targeted at low income clients. It includes loans, savings, insurance, transfer services and other financial products and services. Microfinance is thus one of the critical dimensions of the broad range of financial tools for the poor, and its increasing role in development has emanated from a number of key factors that include the fact that the poor need access to productive resources, with financial services being a key resource, if they are to be able to improve their conditions of life.

Studies have shown that micro-finance plays three broad roles in development:

- It helps very poor households to meet basic needs and protects against risks,

- It is associated with improvements in household economic welfare,

- It helps to empower women by supporting women's economic participation and so promotes gender equity.

The literature suggests that, micro- finance creates access to productive capital for the poor, which together with human capital, addressed through education and training, and social capital, achieved through local organization building, enables people to move out of poverty. By providing material capital to poor persons, their sense of dignity is strengthened and this can help to empower the person to participate in the economy and society (Otero, 1999). The aim of micro-finance according to Otero (1999) is not just about providing capital to the poor to combat poverty on an individual level, it also has a role at an institutional

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level. It seeks to create institutions that deliver financial services to the poor, who are continuously ignored by the formal banking sector.

Littlefield and Rosenberg (2004) argue that "the poor are generally excluded from the financial services sector of the economy so MFIs have emerged to address this market failure. By addressing this gap in the market in a financially sustainable manner, an MFI can become part of the formal financial system of a country and so can access capital markets to fund their lending portfolios, allowing them to increase the number of poor people they can reach" (Otero, 1999). Accomplished commentators such as Littlefieldand Rosenberg (2004) as well asSchindler, and Cooper(2001) have commented on the critical role of micro-credit in achieving the Millennium Development Goals.

According to Schindler, and Cooper(2001) micro-credit is a key strategy in reaching the MDGs and in building global financial systems that meet the needs of most poor people. Littlefield and Rosenberg(2004) posit that, micro-credit is a critical contextual factor with strong impact on the achievements of the MDGs. Micro-credit is unique among development interventions: it can deliver social benefits on an ongoing, permanent basis and on a large scale".

However, some schools of thought remain skeptical about the role of micro-credit in development. For example, while acknowledging the role micro-credit can play in helping to reduce poverty.Hulme and Mosley (1996) concluded from their research on micro-credit that, most contemporary schemes are less effective than they might be. The authors argued that micro-credit is not a panacea for poverty-alleviation and that in some cases the poorest people have been made

worse-off.This notwithstanding, microfinance has emerged globally as a leading and effective strategy for poverty reduction with the potential for far-reaching impact in transforming the lives of poor people. It is argued that microfinance can facilitate the achievement of the Millennium Development Goals (MDGs) as well as National Policies that target poverty reduction, women empowerment, assisting vulnerable groups and improving standards of living. As pointed out by the former UN Secretary General Kofi Annan during the launch of the International Year of Micro Credit (2005),sustainable access to microfinance helps alleviate poverty by generating income, creating jobs, allowing children to go to school, enabling families to obtain health care, and empowering people to make the choices that best serve their needs(Annan, 2003).

Although microfinance is not a panacea for poverty reduction and its related development challenges, when properly harnessed it can make sustainable contributions through financial investment leading to the empowerment of people, which in turn promotes confidence and self-esteem, particularly for women and the vulnerable.

Implications of Non-Performing and Under-Performing Loans in Microfinance

Loans generate huge interest for banks which contribute immensely to the financial performance of banks. However, when loans go bad they have some adverse effects on the financial health of banks. This is because in line with banking regulations, banks make adequate provisions and charges for bad debts which impact negatively on their performance. Bank of Ghana regulations on loan

provisioning indicate that loans in the non-performing categories that is loans that are at least ninety days overdue in default of repayment will attract minimum provisions of 25%, 50% and 100% for substandard, doubtful and loss, respectively(Bank of Ghana Report, 2015).

A possible effect of bad loans is on shareholders earnings. Dividends payments are based on banks performance in terms of net profit. Thus since bad loans have an adverse effect on profitability of banks, it can affect the amount of dividend to be paid to share holders. The Banking Act of Ghana spells out that a bank shall not declare or pay dividend on its shares unless it has, among other things, made the required provisions for nonperforming loans and other erosions in assets value [Section 30 (1) of Banking Act, 2004].

The effect of bad loans on the amount of dividend paid to shareholders can also affect capital mobilization because investors will not invest in banks that have huge non-performing loans portfolio. Elebute(2009) identified among other things, foreign direct investment and domestic capital mobilisation as some of the options available to Ghanaian banks to source funds to meet the minimum capital requirement of Bank of Ghana which is pegged at GH¢60,000,000.00 (Asamoah, 2009). It is evident that non-performing loans with their attendant negative impact on investors' earnings can affect the Ghanaian banks in meeting the minimum capital requirement.

Other economic and financial implications for NPLs are loss of current revenue leading to high risk premium, high loan loss provision leading to high

loan price, erosion of bank capital leading to low rate of investment and financial crises leading to slow economic growth.

Loan Classification and Provisioning

According to BoG regulations, all licensed financial institutions are expected to monitor and review their portfolio of credit and risk assets at least once every quarter on a regular basis. Assets are classified into four grades of risk: (i) standard; (ii) sub-standard; (iii) doubtful; and (iv) loss. Assets in risk grades standard to loss,are considered non-performing and therefore no income may be accrued on them. BOG has specified prudential norms for microenterprise and small business finance which take into account the characteristics of the enterprises and businesses in these two categories. Microfinance and small business loans are required to be reviewed once every month and are to be classified into (i) current, or (ii) delinquent. A delinquent loan is one on which payment of interest or scheduled payment of principal has not been received as of due date. BOG does not permit interest income to be accrued on delinquent loan accounts.

Provisioning for Portfolio at Risk

Across the world, the main factor well-thought-out by the lending organizations before granting loans is the ability and the readiness of the borrower to pay back the loan on the expected date. When the probability of collecting a loan becomes very low, the normal practice is to charge the loan off by deducting its value from the loan portfolio balance by reducing loan loss reserve or, if there is no reserve, by charging an equivalent expense to the income statement. Thus, as

a result of doubts in future cashflows and willful defaulting and to be able to minimize the risk of default, microfinance institutions normally require security in the form of guarantee and/or deposit, (usually up to 25% of the loan amount). Borrowers who delay in payments are pressured at the due date and if the arrears remains unsettled, legal action is taken against the borrower and guarantor(s) to recover any amounts unsettled, but usually after seizing the collateral and liquidated to reduce the borrowing(outstanding loan balance). Provisioning for delinquent microfinance and small business loans is made on a "basket" basis, rather than on an individual loan basis. Basket-based provisioning involves making a blanket provision for the aggregate outstanding balances of loans grouped in each age basket, without regard to any security available for individual loans.

The prescribed rate of provisioning for microfinance and small business loans is shown below:

Table 1: *Loan Classification, Days Overdue and Provision Required*

	Loan Classification	Days Overdue	Provision Required
i.	Current	0 to 30 days	1%
ii.	Olem	31 to 90 days	10%
iii.	Sub-Standard	91 to 180 days	25%
iv.	Doubtful	181 to 360 days	50%
v.	Loss	360 days and beyond	100%

Source: Bank of Ghana, 2015.

In addition to the specific loss provisions to be made for delinquent or non-performing microfinance and small business loans, BOG requires licensed MFIs to maintain a general loss provision of 5% of the aggregate outstanding of all the current or standard class of loan assets. Microfinance institutions are also required to separately disclose, in their financial accounts and reports, the specific and general loss provisions made for non-performing or delinquent loans and standard/current loan assets.

Implication of NPLs for Microfinance Institutions

The interest income generated from loans contributes significantly to the profitability performance of the microfinance institutions. However, when loans become delinquent, it has a serious negative effect on the health and operations of the MF institution. One of the reasons is that, in line with the Bank of Ghana regulations, the lending institution has to make provision and charges for credit losses(bad debt/impairment) which ultimately reduce the profit level.

Again, large non-performing loan portfolio tends to undermine the Microfinance Company's ability to grant more credit. This is because the loanable funds tend to deplete when repayment of loans delays or fail to come.

Another important implication of non-performing loans; which is sometimes described as 'toxic asset' is the loss of confidence on the part of depositors and investors leading to liquidity challenges. Yet again, another implication of non performing for the microfinance institutions is the that huge amounts written off as bad debt adversely affect the growth of the shareholders wealth since the profit which is re-invested (ploughed back) into the business to

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grow the capital base is reduced as a result of provision for credit losses. In a similar token, dividend payment is equally negatively affected because the provisions for credit losses are deducted before dividends are declared.

Some foreign literatures indicate that "failing banks have huge amount of non-performing loans prior to failure and that asset quality is a significant predictor of insolvency" (Berger & De Young, 1997). Indeed in Ghana, most MFIs have collapsed mainly on the account of non-performing loans. The issues discussed above show the gravity of the implication of non-performing loans on the operations of MFIs and this study attempts to identify the major causes of these NPLs among other objectives and proffer some suggestions aimed at reducing the incidence of NPLs in MFIs in Ghana.

Empirical Review

Factors Accounting for NPLs

Some research findings and publications indicate that non-performing loans are caused by poor management (Berger & De Young, 1997).They argue that, managers in most banks or MFIs with the problem of non-performing loans do not practice adequate loan underwriting, monitoring and control.

Credit culture is another factor which has been identified by some research findings as a cause of NPLs. Sometimes borrowers decide to apply for loan without thinking enough about the future and what else they need to buy with their income. When this occurs, a credit culture can develop where borrowers take out large loans not because it is financially wise to do so but because they see others do it. This can result in defaulted loans.

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A World Bank policy research working paper on NPLs in Sub-Saharan Africa revealed that "NPLs are caused by adverse economic shocks coupled with high cost of capital and low interest margins" (Fofack, 2005). Goldstein and Turner (1996) stated that, the accumulation of NPLs is generally attributable to a number of factors, including economic downturn, macroeconomic volatility, terms of trade deterioration, high interest rate, excessive reliance on overly high-priced inter-bank borrowings, insider borrowing and moral hazard.

Nicholas Rouse (1989) indicated in his work that, problem loan can emanate from overdrawn account where there is no overdraft limit or overdraft taken on account which has not been actively operated for some time and overdraft taken in excess of the reasonable operational limit. Lack of good skills and judgment on the part of lenders as a possible cause of NPLs. It was observed that there is positive relationship between inflation in the economy and non – performing loan. Fofack(2005) in a study investigated NPL in Sub-Sahara Africa which focused on determining if increase in NPLs were the major cause of failure of financial institutions. He used correlation and causality analysis with number of macro- economic variables such as inflation, interest rate, GDP per capita, interest rate spread, changes in real exchange rate and broad money supply (M2) to examine the determinants of NPLs.

The results of Fofack's study showed that inflation, real interest rate and GDP growth per capita cause NPLs in most of the countries. The research also found out that level of inflation and interest rate not significant determinant of NPL in some countries.

Bader and Javid (2013) undertook a study to examine the long run and short run relationship and impact of microeconomic factors of NPLs. Five macroeconomic variables were used in the study by the authors: inflation, interest rate, gross domestic product, exchange rate and money supply.It was observed in their results that there existed long run relationship between macroeconomic forces and nonperforming loans. The study also showed long run relationship exists between nonperforming loans with money supply and interest rate. The short run relationship between nonperforming loans and inflation and exchange rate was however found to be weak.

Dash and Kabras (2010) undertook a study on deforming the cause of NPL's in India using regression analysis. Annual inflation, real GDP and the real effective exchange rate were the microeconomic variables used in the model. Bank specific variables were also used in the study. The results of the study showed strong negative relations between NPL's and real GDP growth and again the results showed strong position relation between NPL's and the loans to assert rate. It also showed that the relation between NPLs and real interest rate and NPLs to total loan to be weak.

Bloem and Gorter (2001) asserted that, NPLs may be caused by less predictable incidents such as the cost of petroleum products, prices of key exports, foreign exchange rates, or interest rate change abruptly. They also indicated that, poor management, poor supervision, overoptimistic assessments of creditworthiness during economic booms and moral hazards resulting from generous government guarantees could also lead to loan default.

Again, another publication (Bofondi&Ropele, 2011) identifies speculation: i.e. investing in high risk assets to earn high income and also fraudulent practices such advancing loans to ineligible persons or advances without security or reference as some of the causes of NPLs. It also cites internal reasons such as labour agitation/shortage and market failure as some of the causes of the incidence of NPLs. External factors such as recession in the economy and natural calamities/disasters were also cited by the same publication as some of the factors accounting for loan default.

In a study conducted by Kinnear and Taylor (1996)which aimed to analyze the responsiveness of NPLs to macroeconomic and bank specificfactors in Guyana using regression analysis. They used afixed effect panel model to ascertain the causes of NPLs in theGuyanese banking sector. As well, they utilized data from sixcommercial banks in Guyana over the period of 1994-2004,and estimated the model using pooled least squares. Themacroeconomic factors that were included in their model were: real GDP growth, inflation, and the real effective exchangerate. The bank specific factors used in this study were the realinterest rate, bank size, annual growth in loans, and the ratioof loans to total assets. The results of their correlation analysis show that NPLs and the loans to assets ratio are positivelyrelated, implying that banks which take greater risks tend to have a greater amount of NPLs. The author's analysis also show that GDP growth and growth in NPLs are negatively related andthat the size of the bank may not be relevant in terms of mitigatingcredit risk, as larger banks did not have significantly lower NPLs. However, contrary to other studies, their resultsalso

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indicated a negative association between inflation and the ratio of NPLs to total loans.

In a similar study, Espinoza and Prasad (2014) analyzedthe extentto which macroeconomic factors affected NPLs of various bankswithin the Gulf Cooperative Council (GCC) countries and endeavoured to ascertain the causes of overall NPLs in the GCC banking sector. They used a dynamic panel of data retrievedfrom the database Bank-wise, and ran panel vector autoregressive (VAR) models to determine the factors that affected the growth in NPLs in the GCC banking system.The vector auto-regression (VAR) is an econometric model used to capture the linear interdependencies among multiple time series. VAR models can generalize the univariate autoregressive model (AR model) by allowing for more than one evolving variable.The authorstested bank specific factors2 as well as macroeconomic factors such as non-oil real GDP.

Their studies found that the NPL ratio of the banks deterioratedas interest rates rose and non-oil economic growthslowed, and the size of the banks played a role, as the largerbanks as well as those with fewer expenses had less NPLs. Theyalso found that a prior period of high credit growth could lead to increased NPLs in the future. In terms of the feedback effects,the authors noted that there is a strong but short-livedfeedback effect from NPLs to economic growth.

CHAPTER THREE

RESEARCH METHODS

Introduction

Given the discussion of the background and the theoretical underpinnings of the macroeconomic factors that contribute to the incidence of non-performing loans in Microfinance Institutions in Ghana in the previous chapters, this chapter focuses on the research methodology. The methodology adopted for the study was to help gain an in-depth or broader knowledge of the macroeconomic factors that contribute to the incidence of non-performing loans in Microfinance Institutions in Ghana. The discourse in chapter includes the research design, unit of analysis, population of the study, sample size, sampling technique, research instrument, sources of data, mode of data collection, data analyses and interpretation of results and some ethical considerations of the study.

Research Design

A research design provides a framework for the collection and analysis of data. Research design constitutes the blueprint for the collection, measuring and analysis of data (Kothari, 2004). A choice of research design reflects decisions about the priority being given to the following; expressing causal connections between variables, generalizing to larger groups of individuals than those actually forming part of the investigation, understanding behaviour and meaning of that behaviour in its specific social context and having a temporal (over time) appreciation of social phenomena and their interconnections (Bell, 2008). According to Yin (2003)and Strauss and Corbin (1998), in collecting data, a

researcher can choose between two methods; the quantitative and the qualitative. In other words, the analytical framework of any research can lend itself to either quantitative or qualitative analysis.

Bazeley (2002 p. 57) made a distinction between the two paradigms when he noted that " qualitative and quantitative approaches have been distinguished on the basis of the type of data used (textual or numeric; structured or unstructured), the logic employed (inductive or deductive), the type of investigation (exploratory or confirmatory), the method of analysis (interpretive or statistical), the approach to explanation (variance theory or process theory), and for some, on the basis of the presumed underlying paradigm (positivist or interpretive/critical; rationalistic or naturalistic)".

Against this background of approaches, a qualitative approach is used in this study. This study uses qualitative research design by gathering of data from in-depth interviews. A qualitative research approach refers to methods that involve thick description of data from research participants (Denzin & Lincoln, 2005; Guba& Lincoln, 2005). Qualitative methods are usually employed to address research problems that the researcher does not have clear define variables that can be tested through experiments and surveys. In qualitative research, the researcher is unable to presume the range of responses that research participants may provide, and the researcher has to hear responses directly from participants own words (Denzin& Lincoln 2005). This requires the use of individual intensive interviewing, direct observation and document analysis.

Exploring the macroeconomic factors that contribute to the incidence of non-performing loans in Microfinance Institutions in Ghana in practice have not been largely investigated through experiments and surveys thus producing variables that can be further studied through hypothesis testing. This provides justification for employing in-depth interviewing for this study. For instance, in-depth interviewing allows the researcher to engage institutions registered by the Registrar General of Ghana as Microfinance Companies in Ghana, in a systematic discussion to identify and explore macroeconomic factors that contribute to the incidence of non-performing loans in Microfinance Institutions in Ghana. In-depth interviews offer a special opportunity for the researcher to vary the specific content and order of questions from one participant to another thereby allowing the participants to give their answers in their own words (Guba& Lincoln, 2005).

Study Population

A population consists of all elements- individuals, items or objects whose characteristics are being studied. The population of the study consists of institutions registered by the Registrar General of Ghana as Microfinance Companies in Ghana. However, out of about 490 registered Microfinance Companies in Ghana according to Bank of Ghana, those with their head offices in the Accra metropolis will constitute the population for the study which is estimated at twenty-five (25).

Sample and Sampling Procedure

According to Aforo (2004), the first step in selecting a sample is to consider a sampling design. It denotes all stages of the process involved in

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reaching the respondents. Sample is the segment of the population that is selected for investigation (Bryman & Bell, 2003). In qualitative research, the need to sample is critical. Taking a cue from the questions raised by Kumekpor (2002) the sample and sampling procedures used, seek to ensure the depth of enquiry. In this study, I purposively selected ten (10) loan officers of selected registered Microfinance Companies in the Accra metropolis for in-depth interview at their respective offices for their convenience.

In selecting a sample, it is imperative to consider a sampling design. To access or reach respondents of a study, Aforo (2004) observes that sampling design denotes all those stages of the process. In view of this, all the respondents are sampled for the study as key informants. Two broad sampling methods are probability or non-probability. In probability samples, each member of the population has a known non-zero probability of being selected. Probability methods include random sampling, systematic sampling, and stratified sampling. In non-probability sampling, members are selected from the population in some non-random manner. These include purposive sampling, judgment sampling, quota sampling, and snowball sampling.

To answer the research questions enumerated in the Chapter One, the non-probability sampling method is adopted to sample the 10 interviewees who are loan officers of selected Microfinance Companies in the Accra metropolis. With relevant research strategy, respondents are picked. The purposive sampling method is chosen to save time and cost. With this sampling method, it is also assumed informants are knowledgeable.

Data Collection Instrument

The interview guide is preferred to the questionnaire. Focusing on the research problem, the study designed interview guides which are used to conduct individual interviews. The interview guide assisted to obtain primary data through individual interview sessions with the ten (10) loan officers, who have expert knowledge in the subject matter under study.

Questions in the interview guide helped to elicit and explore macroeconomic factors that contribute to the incidence of non-performing loans in Microfinance Institutions in Ghana. The semi-structured type of interview is used and the development of the instrument is guided by the existing literature. The interview protocol for the study follows a written interview guide. The interview schedule is attached as Appendix. In this study, an interview guide is used because it improves the understanding and credibility of the study and this leads to a better understanding of the topic.

Sources of Data

There are many tools available for collecting empirical data which depends on the research questions and purpose of study. These are interviews, observations, surveys, experiment and questionnaires (Easterby-Smith, Thorpe,&Lowe, 2002). Data is obtained from both primary and secondary sources for the research. The primary data consists of data gathered from the interviews granted by the ten (10) loan officers of the selected Microfinance institutions in the Accra metropolis.

The secondary sources of data include research reports, annual reports, textbooks, statistical data and electronic resources from emerald, SAGE publications, Science Direct and many more. These sources provide a sense of direction and information on what to do in relation to macroeconomic factors that contribute to the incidence of non-performing loans in Microfinance Institutions in Ghana.

Data Collection Procedures

Before the collection of data begins, the researcher took an official letter to the management of the selected Microfinance institutions for the study for permission to be granted to interview the respondents (loan officers). The researcher upon reaching the premises and various offices of the loan officers in the selected Microfinance institutions, introduces himself in a friendly way to interviewees and uses that as the basis to further build rapport with them before explaining the purpose and specific objectives of the study. This is intended to gain the trust and co-operations of the respondents. This is followed by a scheduled date where an in-depth interview was conducted with the aid of a recorder after seeking the consent of the informant.

Ethical Issues

In order to enhance truth value of the study, credibility, dependability, transferability and conformability is enhanced by seeking for ethical approval from the institution of the researcher. I ensure that all participants in the study completely volunteered. Thus, no one is forced to participate; Creswell (2009) "states that the rights of any individual involved in a research study are:

confidentiality, anonymity, voluntary participation, informed consent, not to be harmed, dignity and self-respect". Several measures are employed to ensure confidentiality and anonymity of respondents. All audio and transcribed materials are kept in a secured location with restricted access. Participants are assured anonymity by ascribing an ID code to each participant in the reporting of the data.Moreover, once individuals to participate in the study are assured of the confidentiality of the information, the issue of informed consent is addressed. Participants are fully informed of the nature of the research both verbally and in writing.

Data Processing and Analysis

As a qualitative research study, the data analysis plan begins with the data collection strategy. The researcher maintained complete and accurate records and documentation of the data collection process to facilitate reliable and valid data which is then fed into the data analysis process. The information that were gathered from the respondents using the interview guide were analysed using the thematic approach according to the various themes in line with the research questions that guided the study. With this, the data which were gathered using an audio tape were transcribed before analysis was done. With the help of the Statistical Product for Service Solutions (SPSS) version 21, the background information of the respondents was analysed and a simple regression analysis was computed in order to answer research questions 3 and 4.

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Table 2: *Summary of All Methodological Choices*

Methodological approach	Methodological choice
Research design	Qualitative
Type of survey	Cross-sectional survey
Unit of analysis and Study Population	Presidential press corps
Sampling Technique	Non-Probability sampling technique – Purposive
Research Instrument	Interview Guide
Sources of Data	Primary and secondary data sources
Data analysis and Interpretation of results	QSR Nvivo

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

The purpose of the study is to investigate the "Determinants of Non-Performing Loans of Microfinance Companies in Ghana". This chapter presents analysis, interpretation and discussion of data from the secondary information obtained from the field. Six years interval panel data (2010 to 2015) was obtained and coded into SPSS. In view of the use of secondary data, the stationarity test was conducted through the use of Unit root: Augmented dickey fuller test to help make the data stable for analysis. Trend analysis was used to examine the first research objective. In addition, Pearson correlation was utilized to examine the objective three and four while's content analysis was used to examine objective two. The section provided in detail the result in relation to the stipulated research objectives and questions. The section also discusses the findings obtained from the results in relation to literature of the study.

Testing For Stationarity (Unit Root Test: Augmented Dickey Fuller Test)

Dependent Variable: Non-Performing Loans Has a Unit Root

Independent Variables: Constant

Method: Least Squares

Lag Length: 0

Table 3: *Test of Stationarity for Variables*

		t-statistic	Prob*
Augmented Dickey Fuller Test Statistic		*3.001241*	*0.0001***
Test of critical values	1%	3.000161	
	5%	2.001301	
	10%	1.212305	

**MacKinnon (1996) one-sided p -values*.

Table 3 shows the dickey fuller test statistics in relation to the variables utilized for the study. From Table 3, after the test is performed, Non-performing loan is stationary since it has a probability of 0.0001* which is highly significant at 95% confidence interval. This implies that there is no need for differencing to be done and it goes a long way of avoiding the risk of losing the long-term relationship possibility while taking differences to make series stationary. Since the independent level factors such as inflation rate and interest rate where held constant the critical values obtained in Table 3 suggests stationarity for the two independent adopted variables as posited by Mackinnon (1996).

Trend of NPL in Selected MFI in Ghana from 2010 to 2015

The study first research objective and question was to determine the trend of incidence of NPLs in a selected MFI in Ghana. In order to examine the trend average NPL values were obtained from NPL Microfinance annual report for all the stipulated years including the associated number of MFI used for the data. The number of MFI figures utilized includes 2015 = 424, 2014 = 364, 2013 = 114,

2012 = 110, 2011 = 108 and 2010 = 102. The trend result from the annual average

NPL figures from the utilized MFIs with regards to the sample years is presented

in Figure 1.
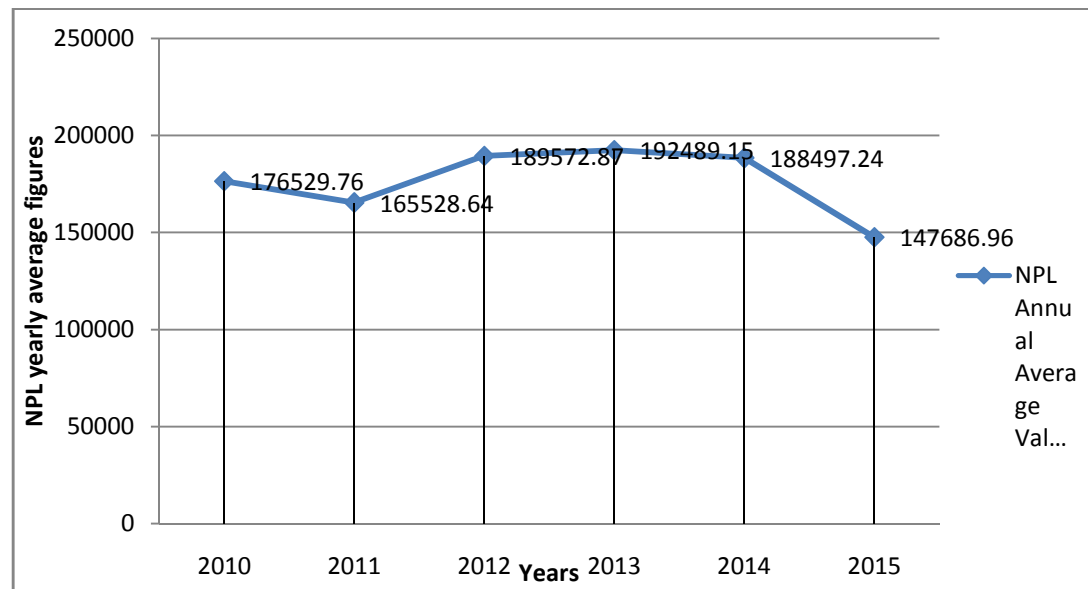
Figure 1. NPL Annual Average Values from 2010 to 2015 for MFIs

(Source: Field Data, 2016)

Figure 1 shows that annual average figures for Non-performing loans for

MFIs in Ghana from 2010 to 2015. Critical observation shows a general

undulating trend. The trend shows a sharp rise in NPL from 2010 to 2011. 2011 to

2012 observed a slight increase and peaked around 2013 which recorded an

average value of 192489.15 for 114 registered MFIs in Ghana. However, 2013 to

2014 recorded a slight decline which became very drastic in 2014 to 2015. The

decline in 2015 NPL average values shows a higher rate of loan recovery by MFIs

from customers. This suggests that Bank of Ghana policy direction and critical

steps taking in 2013 is having a serious impact on MFI operations. The finding

also implies that the more MFIs in the system the decline in rate of NPLs indicating that MFIs becomes proactive because of competition in order to recover more loans for greater profit for business survival. The finding implies that MFIs are currently adhering to the new policy plan of Bank of Ghana with regards loan provision and loan recovery plans. The findings support view by BoG first quarter reports (2016) that the rate o of non-performing loans as observed in 2012 and 2013 is not the same. Some decline has been observed quite recently, this shows that the policy plans of Bank of Ghana is being followed tactically by many financial institutions in Ghana. The findings provides clear explanation to Merton's theory which the default rate is driven by a company's asset given an explanatory trend for non-performing loan performance. The NPL trend shows unstable rate of default for loan payment by customers of MFI in Ghana. However, the prediction was more vivid within the middle belts of the business.

NPL Annual Rate

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25.01
27.02
30.19
27.47
23.58

2010   2011   2012   2013   2014   2015
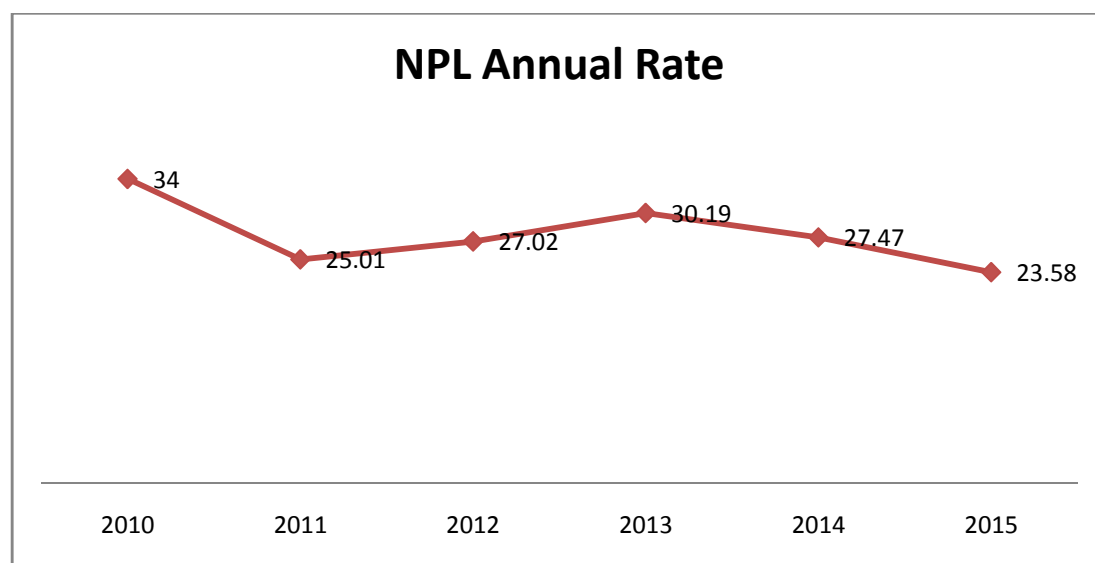
Figure 2. NPL Annual Rate for MFIs from 2010 to 2015
(Source: Field Data, 2016)

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Figure 2 shows the trend result of NPL annual rate for MFIs from 2010 to 2015. The NPL rate result shows similar trend in comparison to average yearly figures in Figure 1. The rate was generally high for 2010, however this was not observed clearly in Figure 1 because of the number of MFIs utilized in 2010 annual reports. In similar vein, general undulating trend was observed from 2010 through to 2015. A sharp decline in 2010 led to a minimal rise in 2011 which peaked at 2013 and a drastic decline from 2014 through to 2015. 2015 NPL rate observed the lowest value. This re-echo the view by BoG (2016) which expressed that the rate of NPL is on decline and therefore the onus lies on all financial institutions to work hard to recovery loans given to borrowers on time.

Average NPL and Loans in a Year

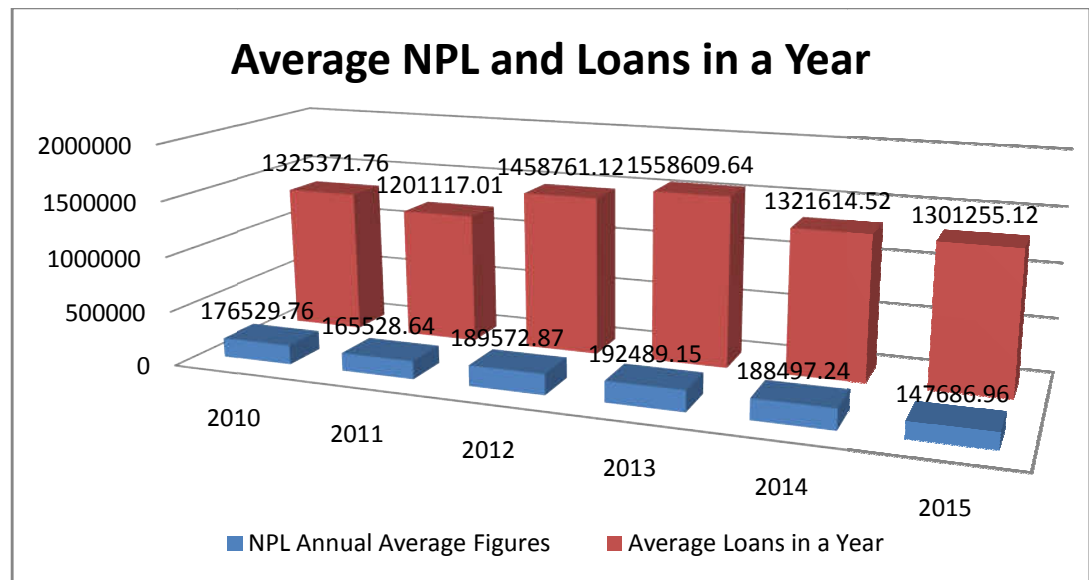| Year	NPL Annual Average Figures	Average Loans in a Year
2010	176529.76	1325371.76
2011	165528.64	1201117.01
2012	189572.87	1458761.12
2013	192489.15	1558609.64
2014	188497.24	1321614.52
2015	147686.96	1301255.12

Figure 3. Average NPL and Average Loans in a Year for MFIs

(Source: Field Data, 2016)

Figure 3 shows the comparative trend analysis for NPL and Loans in a year. The result shows that a positive relationship between average NPL and average Loans in a year. This can be critical observed from the sampled years, the

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higher the average NPL the greater the average loans in that particular year. However, the result shows that loan figures in all the years were greater in magnitude than NPL average values in all the years. 2013 recorded the highest value for both NPL and Loans whiles 2011 recorded the lowest value for both indicators.

Factors Accounting For the Incidence of Non-Performing Loans in Microfinance Companies

The second research objective/ question of the study was to identify factors accounting for the incidence of non-performing loans in Microfinance Companies. The result from the systematic review shows that, a number of factors account for the incidence of non-performing loans. The rank result is presented in Table 4.

Table 4: *Rank Order Results on Factors Accounting for Non-Performing Loans among MFIs in Ghana*

Factors	Rank	Explanation
Poor Management	1	Inadequate leadership skills, management and judgement
Adverse Economic Shock/downtown	1	General economic instabilities
Macroeconomic Volatilities	2	Impact of macroeconomic factors
High Interest Rate	3	Rise in interest rate
Credit Culture	3	The attitude of financial experts
Foreign exchange rate	4	High rate of foreign exchange
Trade deterioration	5	Poor terms of trade

Excessive reliance on over price inter-bank borrowing	6	huge financial borrowing
Petroleum Price volatilities	6	Instability in petroleum products
Economic speculations	7	Lack of economic speculations
Moral Hazard	8	Moral attitude for MFIs

Source: Field Data(2016)

Table 4shows the result of factors accounting for Non-performing loans among MFIs in Ghana. The rank order analysis shows that the two most critical factors accounting for non-performing loans among MFIs are poor management and adverse economic shocks/downturn. These were ranked as 1 as indicated in the table. This suggests that poor managerial skills, abilities and capacity of management of MFI have a consequential effect on non-performing loans. It must be noted that economic crisis within the larger international market have a serious impact on non-performing loans in the sense that, the economic downturn affects the operations of both MFIs and customers making it difficult for customers to repay loans on time. Further, instabilities within the macro economy considered as macroeconomic volatilities was ranked as 2, indicating how serious this factor account for non-performing loans among MFI's in Ghana. In addition, interest rate and credit culture was ranked as 3, this shows that higher interest rate prevent customers for making quick payment of loans resulting in non-performing loans. In similar vein, the attitude of some financial expect within the credit culture impact on customers' ability to pay which account of non-performing loan.

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Moreover, high interest rate was ranked as 4 with trade deterioration, excessive reliance on over high priced inter-bank borrowing and petroleum price volatilities rank as 5 and 6 respectively. Similarly, economic speculations and moral hazard was ranked as 7 and 8 respectively. All the factors play critical role accounting for non-performing loans among MFIs.

The system review from reports of MFI and other research works also shows that these critical factors can be grouped into two namely internal and external factors. The internal factors are those that lie within the milieu of the MFIs businesses and operations for instance poor management. The external factors are those that lie beyond the milieu of MFI businesses and operations, however have a serious impact on general operation and functions of MFIs for instance economic downturn and natural disasters. The findings from the review suggests that the outlined factors have the propensity of causing economic resources of most microfinance business which can lead to stagnation in business, lower profit and capital problems. This also supports the study by Berger and De Young (1997) which postulated that "non-performing loans are caused by poor management". The authors argued that "managers in most banks and MFIs with the problem of non-performing loans do not practice adequate loan underwriting, monitoring and control". The findings is congruence with the study by Fofack, (2005) who reported in a World Bank policy research working paper on NPLs in Sub-Saharan Africa that NPLs are caused by adverse economic shocks coupled with high cost of capital, macroeconomic challenges, high interest rate and low interest margins.

Assessing the Effects of Interest Rate on Non-Performing Loans

The third research objective seeks to examine the effects of interest rate on non-performing loans on. The Pearson correlation result from regression analysis is presented in Table 5.

Table 5: *Summary of Pearson Correlation Coefficient Result on Relationship between Interest Rate and Non-Performing Loans*

	Statistics	NPL	Interest Rate
NPL	Pearson Correlation	1	-.453
	Sig. (2-tailed)		.366
	N	6	6
Interest Rate	Pearson Correlation	-.453	1
	Sig. (2-tailed)	.366	
	N	6	6

(Source: Field Data, 2016)

Table 5 shows the result on relationship between interest rate and non-performing loans. The number of observed values was six (6) representing six years of data utilized. The coefficient value shown a negative relationship, however, this value was not statistically significant. This is indicated as [r = -.453, p> 0.05]. The finding suggests no significant relationship between interest rate and non-performing loans among MFIs in Ghana. This also implies that interest rate does not really correlate with non-performing loans in MFI in Ghana. The result is consistent with the study by Fofack (2005) who found that the level of interest rate is not directly related to NPL in most countries. It was also observed

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that interest rate is not a key significant determinant of NPL in most countries across the world.

Table 6: *Regression Coefficient Result on Effects of Interest Rate on Non-Performing Loans*

Model		B	Std. Error	Beta	t	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
1	(Constant)	34.056	6.260		5.440	.006
	Interest Rate	-.367	.361	-.453	-1.018	.366

a. *Dependent Variable: NPL; R = .453,*

$R^2 = .206$

(Source: Field Data, 2016)

Table 6 shows the regression coefficient result on effects of interest rate on Non-performing loans. The independent variable was interest rate whiles the dependent variable was non-performing loans. The coefficient of determination in relation to R and R^2, is 45.3% and 20.6% respectively. This means that 20.6% of the variation in the dependent variable (NPL) is explained by the independent variable (interest rate). The result shows no statistical significant effects of interest rate on non-performing loans. This shown as [Beta = -.453, t = -1.018, p> 0.05]. The indication is that, statistically, interest rate does affect any change on

non-performing loans. This is congruence with the study by Khemraj and Pasha (2009) who examine macro factor level variables and specific factor variables and found that macro factor variables have significant effect on non-performing loans with the exception of interest rate. Juxtaposing the finding with Merton's theory shows a clear indication of how interest rate is not really important indicator for explaining the swings in NPL of MFIs.

Assessing the Effects of Inflation on Non-Performing Loans

The study further assessed the effects of inflation on non-performing loans as stipulated by research objective four. The result from the Pearson correlation is presented in Table 7.

Table 7: *Summary of Pearson Correlation Coefficient Result on Relationship between Interest Rate and Non-Performing Loans*

		NPL	Inflation
NPL	Pearson Correlation	1	-.489
	Sig. (2-tailed)		.023
	N	6	6
Inflation	Pearson Correlation	-.489	1
	Sig. (2-tailed)	.023	
	N	6	6

(Source: Field Data, 2016)

Table 7 shows the result on relationship between inflation rate and non-performing loans. The number of observed values was six (6) representing six

years of data utilized. The coefficient value showed a statistically negative relationship between inflation rate and non-performing loans. This is indicated as [r = -.489, p< 0.05]. The finding suggests a negative correlation between inflation rate and non-performing loans among MFIs in Ghana. The findings implies that during the season of high inflation especially larger MFI takes the risk of given out more loans with the idea that customers will sell within the higher inflation rate making greater profit and recovering their loans on time. The result is consistent with the study by Khemraj and Pasha (2009) who examine macro factor level variables and specific factor variables and found that macro factor variables have significant effect on non-performing loans. The study further, found a negative association between inflation rate and non-performing loans.

Table 8: *Regression Coefficient Result on Effects of Inflation Rate on Non-Performing Loans*

	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
1 (Constant)	31.455	3.527		8.919	.001
Interest Rate	-10.259	2.231	-.489	-5.120	.023

a. *Dependent Variable: NPL; R = .489, R^2*

= .239

(Source: Field Data, 2016)

Table 8 shows the regression coefficient result on effects of inflation rate on Non-performing loans. The independent variable was inflation rate whiles the dependent variable was non-performing loans. The coefficient of determination in relation to R and R^2, is 48.9% and 23.9% respectively. This means that 23.9% of the variation in the dependent variable (NPL) is explained by the independent variable (interest rate). The result shows statistical significant negative effects of inflation rate on non-performing loans. This shown as [Beta = -.489, t = --5.120, p< 0.05]. The indication is that inflation rate exercise negative or change on non-performing loans statistically. The finding suggests that higher inflation have the inclination of favouring larger MFIs because of their ability to offer larger loans for a larger recovery. The finding support the study by Dash and Kabras (2010) who undertook a study on deforming the cause of NPL's in India using regression analysis. The study found statistically significant effects of inflation on Non-performing loans, however, the effects was very weak.

Theoretical and Practical Implication of the Findings

Microfinance institution play a significant role in the socio-economic development of Ghana and therefore this critical role in relation to poverty reduction cannot be jeopardized.

Theoretically, the findings provide vivid explanation for Merton's theory. The trend of the NPL shows that the market value for MFIs in Ghana was low between 2013 and 2014 and high in 2011 to 2013 and around 2015. The middle belts during those years experienced a rise in default rate resulting in high NPL. This shows that the market value as explained by Merton was weak leading to rise

in NPL creating greater risk for MFI businesses in Ghana. However, this was rectified in 2015 when NPL dropped leading to rise in market value for MFI operations. In addition, this can be attributed to unstable inflation rate and other factors besides interest rate.

Practically, the interest on income generated by MFIs generally contributes greatly to overall performance, profitability and survival of their business. However, when loans become delinquent, it has a serious negative effect on the health and operations of the MF institution. In view of this, the findings shows that the trend of NPL is significantly reducing and have the propensity of further reduction in the future because most registered MFI in Ghana are working closely with the Bank of Ghana regulations which caution MFIs to make provision or charges for credit losses which ultimately have the ability to reduce profit level. It must also be mentioned that non-performing loans which come with huge amounts to be written off as bad debt adversely affect the growth of the shareholders wealth of MFIs since the profit which is re-invested (ploughed back) into the business to grow the capital base is reduced as a result of provision for credit losses. However, the reduction in NPL shows that more capital is being generated by MFIs through loan recovery which is associated with rise in profit margin of MFIs. This also have the ability of providing future hope for governments, stakeholders and shareholders of MFI businesses. Literature suggests that most MFIs in Ghana previously have collapsed largely on the reason of non-performing loans. However, the finding show clearly that the business is now viable and therefore with right managerial skills, expertise, training and

education couple with effective and efficient business regulation and stable economy MFI business will be one of the serious contributor so far as the business Ghanaian industry is at play. Again, the inflation effects as discovered have the luxury of benefiting larger MFIs as compared to the smaller MFIs. In the sense that more loans can be given by larger MFIs with a greater recovery plan as compared to smaller MFI with small capital base.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The study sought to examine the "Determinants of Non-Performing Loans of Microfinance Companies in Ghana". Four research objectives were stipulated as guiding principles for effective investigation of the topic. This chapter of the study summaries the findings from the study and provides conclusion to that effects. In view of the findings discovered practical recommendations are provided as well as for future research.

Summary of Findings

Non-performing loans are very important for financial analysis since it helps to ascertain the amount of loans which are considered as bad or impaired as well as loan recovered with interest from customers. The terms have been given numerous names by researchers' namely bad loans, impaired loans or problem

loans. Non-performing loans plays a crucial role in terms of general survival of a workable business or company/financial institution. This form of loan in broad context is seen as loans that are outstanding in both interest and principal for a period of time contrary to terms and conditions spelt out in the loan agreement. In view of this the study stipulated four research objectives in order to help achieve the purpose of the study.

The study first research objective was to determine the trend of incidence of NPLs in a selected MFI in Ghana. The study found general undulating trend for Non-performing loan for the period 2010 to 2015. However, critical observation shows there were higher NPL at the middle belts thus from 2011 through to 2013 as compare to 2010 and 2015. The trend shows a sharp rise in NPL from 2010 to 2011. 2011 to 2012 observed a slight increase and peaked around 2013 which recorded an average value of 192489.15 for 114 registered MFIs in Ghana. However, 2013 to 2014 recorded a slight decline which became very drastic in 2014 to 2015. The decline in 2015 NPL average values shows a higher rate of loan recovery by MFIs from customers. Similarly, the study discovered that average NPL yearly rate followed a similar pattern. The NPL rate result shows similar trend in comparison to average yearly figures in Figure 1. The rate was generally high for 2010, however this was not observed clearly in Figure 1 because of the number of MFIs utilized in 2010 annual reports.

The second research objective of the study was to identify factors accounting for the incidence of non-performing loans in Microfinance Companies. The study adopted a systematic review in order to review secondary

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source documents such as reports, and empirical studies in order to arrive at this investigation. Through the rank order results the study found that the factors accounting for the incidence of non-performing loans can be broadly group into two namely internal factors and external factors. In view of this, the study discovered that poor management and adverse economic shocks/downturn are two of the most critical factors that account for non-performing loans. It was also found that other factors such as macroeconomic volatilities, interest rate, credit culture, and high rate of interest, trade deterioration, and excessive reliance on over high priced inter-bank borrowing, petroleum price volatilities, economic speculations and moral hazard are all serious factors that account for non-performing loans in Ghana.

The third research objective seeks to examine the effects of interest rate on non-performing loans. In order to achieve the purpose of this objective, the study utilized Pearson moment correlation test and well as regression model. The coefficient correlation value from Pearson was to help examine the relationship between the two variables namely interest rate and non-performing loans. The study found no significant relationship between interest rate and non-performing loans among MFIs in Ghana. Further, with regards to the coefficient of regression the study found no statistical significant effects of interest rate on non-performing loans among MFIs in Ghana.

With regards to the last objective, the study tried to assess the effects of inflation on non-performing loans as stipulated by research objective four. In order to achieve the purpose of this objective, the study utilized Pearson moment

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correlation test and well as regression model. The coefficient correlation value from Pearson was to help examine the relationship between the two variables namely inflation rate and non-performing loans. The Pearson coefficient value showed a statistically significant negative relationship between inflation rate and non-performing loans. This means that inflation has a direct correlation with non-performing loans. In addition, a statistically significant negative effect was observed by inflation rate on non-performing loans. This means inflation impact on non-performing loans significantly.

Conclusions

Every Microfinance business has a key aim of observing its credit facility as performing. A loan/credit facility may therefore be considered as performing if payments of both the principal and interest charges are up to date as agreed between the lender and the borrower. However, most at times this does not come to fruition which mostly led to loans becoming non-performing. Scholars consider non-performing loans as loans which for a relatively long period of time do not generate income, that is both the principal and interest on these loans remain unpaid for at least 90 days. A non-performing loan may also refer to one that is not earning income and full payment of principal and interest is no longer anticipated, principal or interest is 90 days or more or the maturity date has passed and payment in full has not been made. In view this, the study stipulated four research objective to act as guide lines for the investigation of determinants of non-performing loans among MFIs in Ghana.

The study found that non-performing loans were high around 2011 through to 2013, however, were less in 2010, 2014 and 2015. The 2015 observe a massive decline indicating that the MFIs have taking proactive measures to help recover majority of their loans as mostly agree in the loan agreement. Another critical indication was the role played by Bank of Ghana in 2013 and 2014 to provide policy guidelines for microfinance business in Ghana, because of the observation of high unscrupulous MFIs entering the market of MFI business. In addition, external and internal factors such as poor management and economic downturns account for majority of non-performing loans in Ghana. Other factors such as macroeconomic volatilities, interest rate, credit culture, high rate of interest, trade deterioration, excessive reliance on over high priced inter-bank borrowing, petroleum price volatilities, economic speculations and moral hazard have significant role fueling non-performing loan increase in Ghana. The study also found significant effects of inflation on non-performing loans. The negative effect suggests that a rise in inflation has a greater propensity of reducing non-performing loans. And this is clearly observable around 2015 when the rate inflation in Ghana was very high leading to reduction in non-performing loans as observed in the trend results. It is therefore important that non-performing loans are given critical attention to by MFIs because of its impact on loan discovery and overall survival of MFI businesses in Ghana.

Recommendations

In view of the purpose of the study the following practical recommendations are given;

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1. NPL trend: The first research objective was to determine the trend of incidence of NPLs in a selected MFI in Ghana. The study found general undulating trend for Non-performing loan for the period 2010 to 2015. In view of this, it is recommended that, the NPL Management of MFIs should acquire the technical skills and managerial expertise needs to examine the trend and incidence of non-performing loans so that critical measures can be taking in that effect. In addition to this, MFIs should take proactive decision and measures to provide enabling environment so that loan agreement signed between the company and borrowers can be adhered to.

2. The second research objective of the study was to identify factors accounting for the incidence of non-performing loans in Microfinance Companies. With regards to the findings, it is recommended that with credit culture and other accounting for non-performing loans, government and other policy makers should help invest more in growth enhancing sectors of the economy so that government loans can be repaid on time to MFIs. Further, government should ensure early payment to business in contract with them, contractors, individual business owners so that these people can also make payment to their loans on time. In addition, government should help manage the economic downtown and other macroeconomic indicators that can affect MFI and their operations in Ghana. The private and public sector business should be encouraged to make loan payment early so that MFI financial intermediation will have the propensity of yielding positive and greater results. Further, since predictability of economic recession is most at times difficulty, it is recommended that MFIs

goes beyond its scope of macroeconomic surveillance so that critical prudential and predictive indicators can be included.

3. With regards to the findings of the interest rate, the onus lies on MFIs to consider international competiveness, so that MFI can increase their competition at the international markets in order to impact on abilities of borrowers to several exports and imports sectors of the economy so that they can repay loans.

4. The study tried to assess the effects of inflation on non-performing loans as stipulated by research objective four. The negative effects show that this will demotivate foreign investors for investing in the country. It is recommended that, MFIs ought to adhere to critical policy recommendation by Bank of Ghana so that potential borrowers who are creditworthy can be ascertained before an extension of loan is provided. Further, Bank of Ghana and government should strengthen their control mechanism for inflation so that the rate of inflation can be reduced minimally.

Suggestions for Further Research

1. Future studies can increase the sample variables to include other macroeconomic variables such as exchange rate.

2. In increasing the variables other MFI internal or specific factor variables can be considered such as size, liquidity and years of operation.

3. Future studies can make extension through dividing the NPL into type of loan.

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4.   Future studies should attempt to use typical econometric model which can

include lag of non-performing loans.

5.   A comparative study can be made in the future with regards to MFIs and

other financial institutions such as the banks.

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APPENDIX

Appendix A: Dataset

Years NPL   INF   INT   NPL average   Loan average

1.0	34.0	10.7	14.5	176529.76	1325371.76
2.0	25.01	8.71	12.5	165528.64	1201117.01
3.0	27.02	9.2	14.4	189572.87	1458761.12
4.0	30.19	11.6	16.0	192489.15	1558609.64
5.0	27.47	15.3	18.02	188497.24	1321614.52
6.0	23.58	27.5	25.5	147686.96	1301255.12

MFI OFF SITE ANALYSIS FOR

DECEMBER 2015

	Dec-15	**Nov-15**	**CHANGE**
Number of Reporting Microfinance Institutions	424	422	2
Total Assets	1,248,927,745.70	1,213,555,065.17	35,372,680.53
Paid up Capital	285,744,162.98	277,152,164.54	8,591,998.44
Total Deposit	719,501,067.58	707,354,117.76	12,146,949.82
Total Borrowings	202,051,450.93	195,467,640.98	6,583,809.95
Networth	264,006,748.82	247,418,926.68	16,587,822.14
Total Loans	551,732,171.48	545,514,606.35	6,217,565.13

MFI OFF SITE ANALYSIS FOR

DECEMBER 2014

	Dec-14	**Nov-14**	**CHANGE**

Number of Reporting Microfinance Institutions	364	359	5
Total Assets	958,808,063.68	930,197,649.07	28,610,414.61
Paid up Capital	215,451,723.60	206,262,342.20	9,189,381.40
Total Deposit	520,651,284.05	497,291,079.78	23,360,204.26
Total Borrowings	202,372,378.08	204,077,259.77	(1,704,881.69)
Networth	207,805,291.20	200,141,155.42	7,664,135.78
Total Loans	481,067,685.98	464,183,690.47	16,883,995.51

MFI OFF SITE ANALYSIS FOR DECEMBER 2013

Number of Reporting Microfinance Institutions	114
Total Assets	317,886,206.50
Paid up Capital	58,033,799.52
Total Deposit	94,255,313.54
Total Borrowings	107,409,637.57
Networth	59,600,112.15
Total Loans	177,681,498.47