KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

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SCHOOL OF BUSINESS

ASSESSING THE EFFECTIVENESS AND IMPACT OF CREDIT RISK MANAGEMENT PRACTICES OF CAL BANK

BY

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DECLARATION

I hereby declare that this submission is my own work except for references, which I have duly acknowledged towards the MBA degree and that to the best of my knowledge it contains no materials previously published by another person, nor materials that has been accepted for the award of any other degree.

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DEDICATION

I dedicate this research work to my lovely wife Faustina and my children Ewuradwoa and Ewurakua for their immense contribution throughout my study period. You have always been highly important to me and I love you very much**.**

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ABSTRACT

Credit risk management in banks has become more important not only because of the financial crisis sometimes the industry find itself but a crucial concept that determines bank's profitability, liquidity, survival and growth. The purpose of this study is to have a clearer picture of how banks manage their credit risk with special reference to CAL Bank limited, Ghana. Indisputably, CAL Bank originate most of its interest incomes from loans and advances, however, not all loans granted to beneficiaries perform well and earn the expected returns and this tend to have unfavorable effect on the profitability of CAL Bank. In the light of key role that CAL Bank has assumed in the national economy, the study was conducted to establish credit risk management practices and its impact on profitability of CAL Bank. The study specifically focused to identify tools and techniques used to mitigate CRM, loan portfolio sector with highest rate of NPLs, CRM practices and the impact of CRM on profitability of CAL Bank. In terms of data, primary and secondary data were used for the study. The study found out that credit mitigation techniques and tools of the bank includes collateral, termination clauses, re-set clauses and portfolio management, commerce and finance recorded the highest incidence of NPLs because of high cost of trading resulting from depreciation of the cedi over some years now, a substantial degree of standardization of process and documentation is required in terms of character, capacity, collateral, capital and conditions of borrower as a CRM practices of CAL Bank. The impact examination also revealed that credit risk management indicators (GNPL and TL/TD) used, have significant inverse relationship on the profitability (ROE) of CAL Bank

limited, Ghana. Credit derivatives, credit database and CRM integration among all departments are highly recommended for CAL Bank to address the menace of NPLs. International payments through letters of credit or

financing programs are also suggested for further studies.

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LIST OF ACRONYMS AND THEIR MEANINGS

BIS	Bank of International Settlement
CRM	Credit Risk Management
GNPL	Gross Non Performing Loan
GSE	Ghana Stock Exchange
FIs	Financial Institutions
IFRS	International Financial Reporting Standards
NPLs	Non-performing loans
RAROC	Risk-Adjusted Return on Capital
ROA	Return on Assets
ROE	Return on Equity
TL/TD	Total Loan to Total Deposit ratio

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The vast involvement of financial institutions to the development of the economies of countries cannot be overlooked. According to Ntow- Gyamfi and Laryea (2012), financial institutions such as banks although important to every economy are very crucial in the case of developing countries. In the view of Shanmugan and Bourke (1990), the role of banks can be compared with blood arteries in the human body. This is because financial institutions also act as blood arteries in the circulation of financial resources for economic growth from the depositories to where they are required.

The role of financial institutions specifically banks within the system is solely to intermediate between surplus units and deficit units, and typically involves transforming and managing risk. Banks play an even more critical role in the case of emerging economies where there exists limited borrower access to capital markets (Greuning & Bratanovic, 2003). The intermediation role these banks played can be said to be a catalyst for economic growth. The efficient and effective performance of the banking industry over time is an index of financial stability in any nation.

The manner in which banks provide credit to the public for productive activities accelerates the pace of a nation's economic growth and its long-term sustainability. In a study by Barth et al. (2004), they provide evidence in support of the fact that a wellfunctioning commercial banking system accelerates economic growth, while the opposite impedes economic progress and exacerbates poverty.

Aside the vast contribution of banks to the development of the economy, they face various risks that can be categorized into three groups; financial risk which has credit risk as part of its components; operational and strategic risk (Cornett & Saunders, 1999). According to Chijoriga (1997), the magnitude and the level of loss caused by credit risk is severe and is a likely cause of bank failures. Diverse studies have also identified several factors behind bank problems (BrownBridge& Harvey, 1998; Basel, 1999, Basel, 2004). What appear to be running through the various reasons that these studies provide are the issues of credit problems. This is so partly because of the fact that lending is the main business of commercial banks and issues of default will inevitably occur. For some of these studies, weakness in credit risk management, have been identified to be a prominent cause of banking difficulties.

To help solve this problem, several risk-adjusted performance measures have been proposed (Heffernan, 1996; Kealhofer, 2003). A careful review of the literature reveals that most of the proposed techniques are focused on risk-return trade-off. Banks assess the risk at the particular time customers apply for the loan and interest is charged accordingly. Little has been done on the methods that banks can employ to ensure that loans given out are recovered. That notwithstanding, banks in Ghana have employed their own means of reducing the credit risk that is associated with their lending activities

The credit function of banks enhances the ability of investors to exploit desired profitable ventures. Credit creation is the main income generating activity of banks (Kargi, 2011). However, it exposes the banks to credit risk. The Basel Committee on Banking Supervision (2001) defined credit risk as the possibility of losing the outstanding loan partially or totally, due to credit events (default risk). Credit risk is an internal determinant of bank performance. The higher the exposure of a bank to credit risks, the higher the tendency of the banks to experience financial crisis and vice-versa. As a result of the likely huge and widespread of economic impact in connection with banks failure, the management of credit risk is a topic of great importance since the core activity of every bank is credit financing.

Even though one of the major causes of serious banking problems continues to be ineffective credit risk management, the provision of credit remains the primary business of every bank in the World. For this reason, credit quality is considered a primary indicator of financial soundness and health of banks. Interests that are charged on loans and advances form sizeable part of banks' assets. Default of loans and advances poses serious setbacks not only for borrowers and lenders but also to the entire economy of a country. Studies of banking crises all over the world have shown that poor loans (asset quality) are the key factor of bank failures. Stuart (2005) stressed that the spate of bad loans (non-performing loans) was as high as 35% in Ghanaian Commercial Banks between 1999 and 2009.Umoh (1994) also pointed out that increasing level of non-performing loan rates in banks' books, poor loan processing, undue interference in the loan granting process, inadequate or absences of loan collaterals among other things, are linked with poor and ineffective credit risk management that negatively impact on banks profitability.

It is worthy to state that this study helps to provide answers to questions such as; (1) are the credit risk management measures put in place by banks necessary at all? (2) Are these measures helping to curb loan default in the commercial banks? This study investigates the credit risk practices of commercial banks, the level of loan default among banks and finds out the causes of non- performing loans in bank portfolios.

1.2 Statement of the problem

The industry of banking in a developing nation like Ghana has been operating in a very active and unsteady atmosphere. The results from unsteady atmosphere of a nation impact on banking activities negatively or positively. The major outside source of funding for entities to grow their business is credit. However, banks find it extremely difficult to separate good deficit unit from bad deficit because of moral hazard. which put the banks in jeopardy by way of credit risk as its main source of predicament. The late payment or clients default really affect the smooth operation of banking.

The very nature of operating banking is very vulnerable because over 85% of their liability is deposit from clients "(Saunders, Cornett, 2005)". Bank used creditors' money to provide loans to borrowers to create interest income, which exposes them to high credit risk. At present, the operating of banks is very susceptible because a greater of the bank proceeds are generated from external finance given to their clients "(Jeoitta Colquitt. 2007)". This put banks into high-risk exposure. However, banks major income generating activity is the credit it provides and it is a must for a bank to provide credit for their customers to grow and remain stiff in competition in the economy to ensure economic growth. Hence, adequate liquidity is of paramount importance to the banking business because this credit creation process exposes the banks to high credit risk, which can lead to financial distress. Thus, most savers in the bank withdraw their money anytime the need arises unlike insurance company that savers or premium contributors can withdraw their money at the maturity of the contract.

Without effective credit risk management, bank profitability, survival, solvency would be jeopardized. It is crucial importance for banks to know the impact of credit risk management on profitability so that a great attention would be given to the management of those credit risks. Credit risk management method like screening and monitoring, long-term consumer relationship, guarantee requirements and advance rationing are paramount for the victory of banks by determining its prosperity, liquidity, gearing and amount of advance portfolio.

1.3 Research Objectives

The main objective of this study is to evaluate the credit risk management practices of CAL BANK Limited. The specific objectives of the study are:

I. To identify the tools and techniques used by CAL Bank limited to mitigate credit risk

II. To identify the loan portfolio sector with a highest rate of default in CAL Bank limited.

III. To evaluate the credit risk management practices in CAL Bank Limited

IV. To assess the impact of credit risk management on interest income and profitability of CAL Bank limited.

1.4 Research Questions

In line with this specific objectives stated above, this study intends to answer the following research questions:

I. What tools and techniques does CAL Bank limited use to mitigate credit risk?

II. What sector of lending credit facility has a highest rate of default in CAL Bank limited?

III. How effective are the existing credit risk management practices of CAL Bank limited?

IV. What effect does effective credit risk management have on the interest income and profitability of CAL Bank limited?

1.5 Significance of the Study

Credit creation is the main income generating activity of banks which enable them to maximize the wealth of their shareholders' which is the primary objective of every private corporate entity and this income generating activity by banks expose them to high default risk. In view of this risk exposure, it is prudent that a study like this be continuously conducted to identify the problems that negatively affect the performance, survival and solvency of the financial institutions.

Effective credit risk management practices reduce the risk of customer default and help banks remain competitive in the credit market. Goodhart (1998) noted that poor credit risk management which results in undue credit risk is one of the major causes of bank failure. Moreover, the extents to which banks manage their credit risk have implication for the survival and growth of financial sector and the economy as a whole. This study is therefore necessary to unravel the causes of credit default of CAL Bank limited in Ghana and how to deal with the situation.

The outcome of this research will enable banks in Ghana adopt possible credit strategies to control the problem of a growing credit default in the bank and thereby improving its performance. The findings from the study would also be of immense benefit to managers of banks, the central bank (the government) and the financial institutions at large.

1.6 Scope of the Study

The study specifically focused on the credit risk management practices of CAL Bank limited in the Kumasi metropolis, Ghana and therefore the findings, analyses and recommendations do not represent the entire banks in Ghana even though it's one of the universal banks in Ghana listed on the Ghana Stock Exchange (GSE). The period of 2005 – 2013 data of CAL Bank limited will be used to examine the relationship between credit risk management and profitability of the bank. Gross non performing loan, loan loss provision and total loan to total deposit will be used as credit risk management indicators whilst Return on Equity and interest income will be used as a profitability indicator to examine the relationship.

1.7 Organization of the study

The study is organized into five chapters. The rest of the study is organized as follows: Second chapter will display the theoretical structure and literature review. In short, it put on view the theoretical philosophy of the study. Risk management theory to help bring understanding about existing and propose dreams on the thesis topic. It will proceed to give you an idea about the industry activities in order to achieve the following key indicators; profitability, liquidity and capital adequacy.

The third chapter is dedicated to exhibit and discuss the fitting research methodology needed for this research. Data collection procedure is also explained to readers.
Justification for using the chosen strategy has been highlighted under this chapter.

The last but not least chapter focused on the analytical stage of data. Discussions and empirical results of the study are also exhibited under this chapter.
The last chapter presents summary of results from the research based on the outcome of chapter four. Conclusion, general and specific recommendations for the study and areas of potential research are stated in this section.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The main challenges to banks in their operations are the disbursement of loans and advances. The momentous role occupied by financial institutions in a developing nation like Ghana where long-term financial securities is restricted cannot be exaggerated. Truly, well performing banks are recognized as vehicle for fiscal growth. But badly performing banks do not only hinder economic advancement but also aggravate poverty (Barth et al, 2004). Risk like credit, market and operational risk etc. affects the performance, liquidity, solvency, survival and growth of banks business. However, the most hazardous risk is the credit because deficit unit not complying with terms under the contract can seriously jeopardize the bank. Although all these risk militate against the performance of banks in several ways, "Chijoriga (1997)", argues that the size and the rank of loss caused by credit risk as weigh against others were rigorous to disintegrate a bank. This makes it paramount for banks to assume fitting credit appraisal techniques to militate the chance of credit defaults. Defaults on loan repayments adversely effects stakeholders; such as investors losing their investment, confidence loss in the banking activities, and financial unsteadiness (Central Bank of Kenya, 1997).

2.1 The Role of Banks in the Economy and its exposure to Risk

A financial intermediary is defined as an entity that stands between surplus unit and deficit unit in the capital markets "(Beck, 2001)". Precisely, financial intermediary is an entity that stands between surplus unit and deficit unit for transacting both money and capital markets securities to enhance economic advancement. Its activities are accomplished through supply and demand of financial assets in the financial market. Hence, a financial intermediary is an intermediary institution between surplus units and deficit units. It provides market clearness in its function. Such mediators are facilitators of risk transfer, which is well posed to handle complicated financial assets and markets "(Allen and Santomero, 1997)".

One vital activity of mediators is risk management. However, the traditional theory about financial mediators provides modest enlightenment about the necessity for institutions to carry out risk management role. Concurrently, financial mediators lessen participation costs. Thus, the expenses involved in learning about the use of markets and partaking in them frequently. Truly, this is a vital justification of the tremendous changes in place.

"Heffernan (1996)" defines banks as a unique financial mediator that stands between depositors and deficit units transacting securities in the economy. Banks are separated from other categories of financial entities because they provide deposit and advance products. To buttress this explanation, "Bossone (2001)" suggests that banks are unique financial mediators. All because they have a unique capacity to fund production by lending its personal liability to individual and entities ready to accept. Banks have the responsibility of managing depositor's funds and also lend money to deficit units to generate interest income in order to satisfy stakeholders' need. In general, the mediation of banks results in providing payment services to clients. Banking is the trading of funds and portfolio management activities according to "Fama (1980)". However, "Kareken (1985)" gave serious attention to the function of banks in managing the payment system. Besides, "Corrigan (1982)"also said banks have two fold role of backup sources of liquidity for all ventures in the nation and transmission belt for monetary policy.

Moreover, the banks have the trait as delegated monitors of deficit units, on behalf of the ultimate surplus units, where monitoring is costly in safeguarding investors interest. Apparently, banks produce a net social incentive through the exploitation of scale economies in processing the information needed in supervising and enforcing contracts with deficit units. Bank lessens the delegation expenditure through a satisfactory diversification of its credit portfolio." Fama (1985)" points to the uniqueness of banks as mediator that provides integrated credit and liquidity functions. Banks have the opportunity to observe existing deficit units to gain confidential information on deficit units, which are considered in processing new loans.

Furthermore, "Bossone (2001a)" came out with two major characteristics of banks. Issuing of liability claims on themselves that are accepted as money by the entire public is first characteristic. The other is to infuse funds into the nation by lending out claims on their own liability. To be precise, the commercial activities of money creation by banks include claims on their own liability and infuse in the system by lending for the purpose of economizing the use of outside funds with their own deposit liabilities.

As finalized by Heffernan "(1996)", with a lot of cost-intensive domestic branches, bank provides a package of diverse services with many branches despite the huge cost of establishing. But most other financial mediators only focus on one or few specific activity in its operation. For example, a bank provides loans to entities and private customers; it sells stocks/shares and pays interest to saving depositors; and it also disburses funds receives from the central bank to clients. Banks are differentiated from other financial mediators because of its integrated information-intensive for lending and payment services, according to "Goodfriend (1991)".

2.2 Credit Risk and Significance

Risk like credit risk is inevitable for undertaken banking activities therefore it is prudent for banks to arm themselves always to mitigate credit risk to the minimal stage. The mitigation of this unavoidable risk, which is a major activity for a bank to remain stiff in the competition and perform in an unstable environment. Wealth is created from effective credit risk mitigation practices for the purpose of satisfying stockholders and other stakeholders. Bank as well as any other entity goals is mostly to maximize earnings and thus maximizing stockholders yield. To accomplish this aim, they cannot get away from risk whose penalty can be an obstacle to this goal accomplishment.

Credit risk is the most vital among the risks affecting banks because it occurs as a result of inability of the deficit units to satisfy their financial obligation on time under loan contract. Credit risk has been acknowledged as the most severe risk in terms of its impact on bank soundness, "(Sinkey, 1992, p. 279)". These occurrences leads to less capital adequacy. This is because the bank has to find other sources of finance to avert the loss.

This goes to prove that risk and returns are so entwined. Huge credit risk leads to less bank performance and vice versa. However, the tradeoff between the two is factual. Riskier securities pay risk free of interest plus security risk premium because there is a greater indecision of payment "(Kohn, 1994, p. 186)".

2.3 Credit Risk Management in the banks

"Although the effects of all risks types can cause negative consequences to the bank, credit risk has been pinpointed or identified as the key risk associated with negative consequences in terms of its influences on bank performance", "(Sinkey, 1992, p. 279)". Collapse of bank can occur if great attention is not given CRM. Thus, serious attention to handle CRM is the only way for a bank to succeed. "A clear reason why a correct management of credit risk is very important is because banks have a limited capacity to absorb loan losses and this looses can be covered only by using income generated by other profitable loans or by bank capital", "(Boffey& Robson, 1995, p. 66)".

"(Greuning&Bratanovic, 2003, p. 136)" says "because of the potentially dire effects of credit risk, it is important to perform a comprehensive evaluation of a bank's capacity to assess, administer, supervise, enforce and recover loans, advances, guarantees, and other credit instruments". Continuous review of CRM policies and practices would enable the bank to have adequate capability to recover advances extended to deficit units. This indicates that CRM procedure must be pursue to make certain decision for the recovery of loans granted and on time.

Every bank apparently must develop CRM approach to brawl competitors in the same environment of conducting business by being victorious. The CRM approach of each bank should be able to assess the credit merit of the deficit units. Further, the approach should also monitor deficit units until complete loan repayment. This supervision of loan is very crucial because of uncertainty business environment. This will aid the bank to acquire information on any likely event that can cause deficit units to default payment.

"Early identification of borrowers at risk is good because it enables servicers to adequately staff collections departments, determine the most cost-effective type of customer outreach, and initiate repayment plans before a borrower's financial situation worsens to the point at which foreclosure is unavoidable", "(Focardi, 2009, p. 73)".

2.3.1 Credit Risk Management Policy

Firms as well as banks have official laid down procedures and doctrine documented by board of directors to govern the management of credits. Cautiously should management be in the implementation. This controls the aptitude of supervisors and managers. Their actions should be in line with entity procedures and doctrine. "(Maness & Zietlow, 2005, p. 139)", "specifies that a credit policy has four major components which include; credit standards, credit terms, credit limits and collection procedures; Credit standards- This is the profile of the minimally acceptable creditworthy customer; Credit terms- This is the credit period stipulating how long from the invoice the customer has to pay, and the cash discount (if any); Credit limit- This is the dollar amount that cumulative credit purchases can reach for a customer if credit is extended; Collection procedures- These are detailed statements regarding when and how the company will carry out collection of past-due accounts".

Credit procedures are not stereotype despite the regulations. “A good lending policy is not overly restrictive, but allows for the presentation of loans to the board that officers believe are worthy of consideration but which do not fall within the parameters of written guidelines”, "(Greuning&Bratanovic, 2003, p. 137)". Flexibility needs to be considered for trouble-free adjustment to changing circumstance because of uncertainty in the future. "For a sound CRM to be attained, after the risk in the lending activity has been identified, the bank’s credit risk management policies and the philosophies have to be used in order to control the credit risk", "(Greuning&Bratanovic, 2003, p. 151)".

According to "(Greuning&Bratanovic, 2003, p. 151)", "specific risk management measures include three kinds of policies; Policies aimed to limit or reduce credit risk (concentration and large exposures, adequate diversification, lending to connected parties, or over exposures); Policies of asset classification (mandate periodic evaluation of collectability of the portfolio of loans and other credit instruments, including any accrued and unpaid interest, which exposes a bank to credit risk); Policies of loss positioning (making of allowances at a level adequate to absorb anticipated loss)".

2.3.2 Credit risk management strategies

Strategy is a set of guideline for accomplishing an activity. A policy thus simply means a way to put an action to play. This goes that as financial entities have variety of credit risk strategies and practices, the strategies to achieve their preferred goals in the same approach may differ. The mentality to go about a specific motion can exist to the understanding of the bankers. But the policy of how to act so that required outcomes can be accomplished. Given the challenging surrounding in which financial firms work, it is always clear to have a tactic position of how to supervise its debit risk that will make or show its disparity from its contenders. A tactic positioning means working on different plans from contenders or working on similar policies in varying methods. A firm can outperform its contenders only if it can build up a variety that it can sustain by selecting to work on activities differently than contenders do "(Porter, 1996, pg. 62)".

When a financial firm carries out its operational events which are the same events carried out by other financial firms, they have to distinguish themselves from their contenders by not only trying to be more productive but by making effort variation. This can be achieved by working on variety of policies from the contenders. For example: although particular risk supervision activities may vary among banks depending on the state or complications of their loan policies. A bank with a difference usually used all-inclusive CRM tactic like; set up suitable credit risk surroundings, working under a sound loan Granting process;

uphold a suitable credit administration; measuring and supervising process to ensure an adequate controls over credit/advance. "Application of any bank credit strategies should be in concurrence with sound practices related to the assessment of assets quality, adequacy of provision and reserves and the disclosure of credit risk".
"(Basel Consultative paper, 1999, p. 4)".

2.3.4 Credit culture

Corporate bodies like bank is usually operate in an environment. The culture of a corporate entity more often than not acts as a guide in carrying out its own activities.
Behaviours and attitudes out of this tradition will impact the roles or customs of the bank. The beliefs, practices, procedures and managerial approach represent the credit culture of a bank put in place to act as a mirror for the loans portfolio officers to perform their credit management task. This points out the lending atmosphere and spells out the lending conduct that is up to standard to the bank. In a research made by "Mckinley,
(1990, cited in Boffey& Robson, 1995, p. 67)", "a combination of factors that establish a lending environment that encourages certain lending behavior is known as credit culture. It should include such things as management's communication of values and priorities, the indoctrination of lenders during training, and the bank's lending philosophy and policy." It is rational for a bank to have credit culture because it serves as a guideline for an excellent bank credit management to refrain poor performance as well as bank failure.

2.3.5 Credit Risk Management Process

As far as banks have special credit culture, their CRM processes are also different from other entities. CRM process is a set of sketch out strategies purposely for managing credit risk. The process includes; risk identification, risk measurement, risk assessment, risk control and risk monitoring.

The initial stage is to discover the risk involved in the credit process. Once risk is identified, the second stage is to measure the risk discovered by evaluating the outcomes if it could be diversified or not. We proceed to assessment stage to ascertain the possibility of its occurrences and the likely control mechanisms. The risk control and risk monitoring together are the final stage of CRM process because they are interrelated. In the control segment, actions, which can be employed to circumvent, diminish, put off or eradicate the risk, are instituted. The monitoring segment is applied to make a continuous check so that all events, which have been line up for the risk management process, are well executed for expected results to be achieved and corrections can then be made to any distortion.

"All this is done because credit risk is a very important and delicate risk that banks face and needs to be managed with great care / precaution because its consequences are always very detrimental to the bank. Despite the changes in the financial service sector, credit risk remains the major single cause of bank failure", "(Greuning&Bratanovic, 2003, p.135)".

2.4 Credit Risk's effect on Profitability, liquidity and capital adequacy (solvency)

Banks are enthused to practice sound CRM policies, processes and strategies in order to achieve both corporate financial and non-financial objectives. Banks profitability depends on the highest interest income and fees against its operating expenditure at a particular accounting year. Profitable, liquidity and capital adequacy, which are fundamental indicators to assess the strength of banks, cannot be overlooked. Liquidity in general sense is "the availability of cash or the capacity to obtain it on demand, or the quality of being readily converted to cash”. "Solvency shows the company’s after tax income and how likely it will continue to meet up with its debt obligations". "(Answers.com 20100323)".

"A bank like any other enterprise has as one of its most important objective, profits or value creation. For this to be attained, she must always strive to strike a balance between profitability, liquidity and solvency", "(Gardener, 2007, p. 10)". The reason is that, the 3 are interconnected. The negligence of one possibly affects the others and hence the bank’s worth. "Sustainable profitability is vital in maintaining the stability of the banking system. Even if solvency is high, poor profitability will in the long run weaken the capacity of a bank to absorb negative shocks and will eventually affect solvency again", "(Herrero, Gavila&Santabarbara, 2009, p. 2081)".

"Capital adequacy means the financial capability of the bank to meet up with its financial obligations or uncertainties that may arise and thus will reduce the risk that it may face to some extent. An acceptable capital adequacy position is equivalent to saying that a bank is not over exposed to risks”, "(Garderner, 2007, p. 10)".

“The more capital a bank has, the more are its creditors or the government insurance agency protected, and the greater is the capital loss that can be sustained without resulting in bankruptcy”,"(Shah, 1996, p. 279)". This way," if by giving out credit, the bank does not carry out a good risk management, and the borrower fails to fulfill his or her payments, this will lead to a shortage in capital (given uncertainty) and increase in the risk because operationally speaking, the capital of a bank acts as an internal insurance fund against uncertainty", "(Garderner, 2007, p. 10)".

"A more liquid bank will be more able to meet up with financial demands from its customers and thus create more value. Bank liquidity creation is positively correlated with bank value”,"(Berger &Bouwman, 2009, p. 3779)". "Banks as FI have as main service, the creation of liquidity, but, this good can be destroyed by the behavior of individual financial institutions","(Gaffney, 2009, p. 983)". "A loss in liquidity shows that they cannot meet up with demand if customers turn up and thus crisis can develop", "(Gaffney, 2009, p. 984)".

2.6 Credit risk and financial distress

Bank's key intention of combating for an outstanding CRM is to circumvent financial distress. The monetary capability of a bank is extremely essential for its success. Managers have the responsibility to combat against credit risk and boost stockholders value. This is extremely important because given the role performed by banks of being a financial mediator between surplus units and deficit units, illiquidity can lead to adverse effects by not its short term financial obligation. This adverse is popularly known as financial distress. Financial distress is the inability in term of meeting financial obligations to account payables on time. "(Arnold, 2008, p. 812)".

"Financial distress arises when a bank starts experiencing financial problems that may force it to close, merge with another bank, declare bankruptcy, eliminate services, or take actions that have adverse effects on the financial service delivery system of a region", "(Trussel& Patrick, 2009, p. 31)".

"Financial distress is very detrimental to a bank and may have some negative consequences because the margin between cash flows and debt servicing has been narrowed", "(Ogden, Jen & O’Connor, 2002, p. 587)". According to "(Arnold, 2008, p. 813)", "some of these consequences include; Loss of confidence especially if the customers suspect that there can be a bankruptcy in the near future. Customers often need assurance that the bank can be sufficiently stable to deliver on promise. - Loss in shareholders' value. - Demotivation of employees in a struggling firm as they sense increased job insecurity and few prospects of advancement. - Movement of best staff to posts in safer companies - Companies are forced to sell off their profitable operations in an attempt to raise cash - The cost of paying for lawyers' fees, accountants' fees, court fees and management time increases".

Personnel responsible for managing credit risk are then called upon to act properly by applying the entity's doctrines when granting and recuperating loans. Refusal to honour their responsibilities well wills detriment loan repayment or recovering. This will cause insolvency, which would make it difficult to satisfy the needs of customers.

2.7 Review of related Empirical Literature

Initial studies on banks profitability were provided by "Short (1979) and Bourke (1989)". Most of the researchers used ROA and ROE as a performance/profitability indicator measures. They determined the correlation between dependent and independent variables. They used different approaches to determine the effect of these factors on banks profitability.

Abreu and Mendes (2002) studied the profitability and net interest margin of banks for some European countries. They concluded that banks with more capital face less expected cost of bankruptcy and there, in return more profitability. However there was negative regression and interest rate and unemployment were according to the explanation Ataullah *et* of the profitability of banks. At that time, there was few work conducted on the performance of banking sector of Pakistan however a lot of work is done on the evolution of banking sector of Pakistan.

al. (2004) investigated on the commercial banks of India and Pakistan and made a comparative analysis for the period of 1988-1998.They found that efficiency is higher in loan base model however it is less in income-based model. They put an opinion that India and Pakistan banks should improve the efficiency of their banks

Burki and Niazi (2006) studied the effect of financial reforms on the efficiency of banks of Pakistan, including foreign, private and state owned. They took the data of 40 banks for 1991-2000.They concluded that there is positive relation of size, loan to deposit ratio, and interest income to earning assets on estimated efficiency scores.

Kosmidou *et al*. (2009) conducted research on UK owned commercial banks. They determined the effect of bank specific, macroeconomic prevailing conditions and structure of financial market on the performance of banks. They used net interest margins (NIM) and return on average assets (ROAA) as a profitability measure.

Ali *et al.* (2011) examined the effect of bank specific and macroeconomic factors on banks profitability. They reported significant role of capital adequacy ratio, operating efficiency, asset management, and gross domestic product on banks profitability. They also found very good performance of assets and returns in conventional banks. They also reported the financial and non-financial risk. They used two regression models (ROA and ROE), for the year of 2006 to 2009 for 28 banks, including public, conventional and private banks. Risk of credit was used to determine the outcome of financial risk and for knowing the result of non-financial risk, they used operational risk. In case of profitability was measured by ROA model, they concluded that size, portfolio composition, operating efficiency, asset management effect positively. Credit risk and capital affected negatively.

"Anber and Alper (2011)", "did their research on the factors/determinants affecting the profitability of banks in turkey for the period of 2002-2010". They also measured the profitability of banks by ROA and ROE. They used balanced data set and showed result that non-interest income and asset size had significant and positive impact on banks performance. However, loans under follow-up and credit portfolio size had negatively and significantly affecting the performance of banks. They suggested that through increasing bank size and non-interest income and decreasing credit/assets ratio bank could improve their profitability. They also found that higher profitability was achieved by higher interest rate.

Zaman *et al*. (2011) studied that banks with large amount of Loans, equity capital, Deposits, Total Assets, and macroeconomic factors i.e., economic growth, stock market capitalization and inflation were considered safe and result to higher profitability.

Ali *et a*l. (2011) also analyzed the effect of micro economic determinants on banks profitability for the years 2006 to 2009. They used multivariate regression analysis for the formation of two regression models (ROA and ROE). They concluded that gearing ratio, NPLs ratio and asset management significantly affecting the banks profit in both models. When we used ROA as proxy for measuring banks profitability, the size of bank showed significant affect and insignificant relation as measured by ROE.

According to the "Demirguc-Khunt and Huzinga (1999)", "the overwhelming concern on bank credit risk management is two-fold. First, the Newtonian reaction against bank losses, a realization that after the losses have occurred, and the losses are unbearable. Secondly, recent development in the field of financing commercial paper, securitization, and other non-bank competition has pushed banks to find viable loan borrowers. This has seen large and stable companies shifting to open market sources of finance like bond market. Organizing and managing the lending function in a highly professional manner and doing so pro-actively can minimize whatever the degree of risk assumed losses".

"Brown and Manassee (2004)", "observe that credit risk arose before financing of business ventures. The bible is hostile to credit by stating that one should not let the sun go down on an unpaid wage".

"Banks and other intermediaries can transfer the payment delays and the credit risk among producers, or between producers and outside investors", "(Demirguc-kunt and Huzinga, 2000)".

CHAPTER THREE

METHODOLOGY

3.0 Introduction

A brief explanation of the research approach employed is stated in this chapter, the empirical model make used of, the sample and sampling methods were also explained in this same chapter. The sources of data, the data compilation techniques and the nature of data collection were discussed under this chapter as well as data analysis considered for the study.

3.1 Research Approach

A case study approach was implemented to examine credit risk management practices of CAL Bank limited. Since the study is more interested in assessing CRM and its impact on the performance, specifically profitability of banks; the case study method is deemed fitting as it enables the investigator to conduct an in-depth analysis of the incident of interest. "The rational for this technique is that it generates responses to the questions such as why, what and how. This usually assists in answering the research questions. A case study strategy is mostly used in exploratory and explanatory research", "(Saunder *et al*, 2007)"

The method of the study was both qualitative and quantitative. Data analysis was done on gross non-performing and total loans and advances divided by total deposits, which were, taken from the banks documents specifically books of accounts. The focus of the study is to assess both qualitative and quantitative consequence of CRM on the performance of CAL Bank limited over the period of 9 years (2005-2013). Data were sourced from the Annual Reports and Accounts of the bank. The data include time-series data, therefore pooled into a data set and estimated using multivariate regression based on the model below:

3.3 Model Specification

Banks with higher profitability (ROE) have lower loan losses (NPLs).

Thus we test the hypothesis using the following regression model:

P (ROE) = α $+\beta$ GNPL$+\beta$ $+\mu$

…………………………………………………………………………………….. (1)

Where, GNPL denotes gross non-performing loans, TL/TD denotes total loan to total deposit ratio and P denotes profitability (ROE). Also, α is the intercept and β is the parameter of explanatory variable ROE, μ represents the disturbance terms.

The 'priori expectation' in the model is that the independent variable is expected to have

a negative relationship on bank profitability measured by Return on Equity (ROE). The mathematical expression is represented as;; β_1 and $\beta_2 < 0$ implying that a unit increase in the independent variable will lead to decrease in ROE by a unit.

3.3.1 Dependent variable

As per Richard (2011), "Return on equity (ROE) is the ratio which indicates how profitable a company is by comparing its net income to its average shareholders' equity". Thus, the ratio measures the yield of shareholders for their investment in an entity. The lower the ratio percentage, the less efficient management is making use of its equity base. Hence poor yield to investors.

The investigator used ROE as profitability gauge in the regression analysis. Earlier studies have broadly considered ROE along with ROA as profitability gauge and it is the more reason ROE is considered suitable for this study. At first, the investigator has considered these two ratios; ROE and RORAC (Profit after Tax/Risk Adjusted Capital) (return on risk adjusted capital, as sited as, "(Hosna, *et al*, 2009)". "RORAC is a measure for relative performance of the banks and could have been used in the current regression analysis. However, the researcher is not used to RORAC because the banks with internally available information usually use it, for example, risk-adjusted capital, and one do not have access to such required information. Therefore, the researcher decided to use ROE as the indicator of profitability. In this case, the required information is available in the annual reports of the banks","(Hosna, *et al*, 2009)".

3.3.2 Independent variables

The researcher chooses GNPL and TL/TD as independent variables because it point out CRM in banks because it describe the fraction of NPLs sum relative to TL sum. In order to compute this ratio, the investigator considered data stated in the annual reports of CAL Bank since 2005 to2013. GNPL figure has been depicted using variety of names, like, problem loans, loan allowances, doubtful claims and impaired loans. However, the descriptions of the names depicted point out to CRM gauge. Thus, they are used interchangeably. Banks offer more exact classification of NPLs after the acceptance of IFRS in 2005.GNPL figure is provided in the Notes to financial statements under Loans section. TL amount, the denominator of the ratio, has been gathered by adding two types of loans: loans to institutions and loans to the public. The researcher has collected the loan amount provided in the balance sheet of the banks in their annual reports.

The study adopts a purposive sampling approach since most of the data needed are those that can only be provided by a particular group of people. Also it is practically impossible to get all the loan officers of all branches of CAL Banks in Ghana to complete questionnaires, hence the sample size is only limited to its main branch in Ashanti region. To ensure that the data is representative, chief credit officer was given questionnaire to answer from its main branch in Ashanti Region. Questionnaires were designed and pre-tested in order to correct mistakes in the questionnaire. Responses were analyzed using both quantitative and qualitative techniques to achieve some of the research objectives.

3.4 Validity and Reliability

Validity and reliability of a research is a key determinant of the true value of this research in the practical working life. While reliability is concerned with the result consistency (Proctor 2005, 208; Saunders, Lewis &Thornhill 2009, 156), "validity is about the „honest" nature of the research conclusion and applicability (Ghauri&Gronhaug 2010, 65). Certain obstacles, either subjective or objective, may hinder a research study's reliability or validity.

The four „threats" to reliability are:

- Participant error: the research conducted in different times may generate different results.
- Participant bias: the participant (or respondent) may not be honest because of some fears
- Observer error: researchers have different ways to carry out the research
- Observer bias: researcher A interprets the findings differently from researcher B (Saunders, Lewis &Thornhill 2009, 156-157)

Hindrances to validity can be history (external events occurring at the same time of the research may have an impact on the response), testing (the research in a way or another affect the respondents), maturation (sudden changes during the research period), mortality (participants drop out of the studies) and selection bias (subjects are not chosen randomly). (Saunders, Lewis &Thornhill 2009, 157; Ghauri&Gronhaug 2010, 66)

Reflecting those impediments on this research, the thesis is proved to be fairly reliable and valid. On the side of the research participants, they are interviewed at the time when there are no customers so that they feel more relaxed at answering the questions. Also, the interviewees are voluntarily willing to participate in the study so the participant bias should be eliminated. On the researcher's side, the content and the analysis of the interview's and questionnaire's results are based closely on the theories presented in the theoretical and research methodology part. All the recorded findings are fair and truthful. The researcher believes that other observers will have the same conclusions after conducting the research on this bank at the same time.

Besides, the benefits of using both qualitative and quantitative methods (argued earlier) can also reinforce the validity and reliability. Furthermore, the research analysis takes into consideration not only findings from the primary data but a lot of secondary data have also been gathered and interpreted. The secondary data (annual reports, policies, business results) are officially published by well-known sources and cannot be manipulated by the researcher or the respondents.

3.5 Data collection procedures

Data collection method is a phrase used to describe the way or manner in which a researcher gathers relevant information, which he or she is going to use to answer the research questions. There are basically two main sources by which the researcher can collect data; the primary and secondary source. Primary data source is when the researcher collects new information either through observations, interviews, and questionnaires and then uses this data for analysis (Saunders et al. 2000, p. 188.) Secondary data on the other hand is when the research uses data that was previously collected maybe for another purpose, used and stored (Hakim, 1982, cited by Saunders et al., 2000, p. 188- 190).

3.5.1 Primary Data

Both structured questionnaire and interview guides were used in the data collection. While the structured questionnaire was used to get the unbiased opinion of respondent, the interview was used for clarifications of some unclear issues such as factors that account for high NPLs in certain sectors of the economy, how poor credit appraisal result in bad loans among others. Specimen of the questionnaire is attached as Appendix I. These data collection instruments made it very convenient for respondent to give the information needed for the analysis. Practically, it was not possible to be physically present to administer the questionnaire to respondent and conduct the interview, so the respondent was contacted by telephone and briefed about the study. After he has agreed to participate, the questionnaire was mailed to him for response and thereafter mailed back to the researcher. The researcher was able to physically travel to its main branch office in Kumasi namely Kejetia branch to conduct the interviews. Here, respondent was allowed to schedule the interview time and dates convenient for him. Information on the issues to be covered was given to the respondent to enable him prepare since some of the questions required facts and figures and also a little mental effort. The major questions were the research questions combined with some follow-up and probing questions where necessary. The flexible nature of these data collection instruments afforded the researcher the opportunity to probe some of the response obtained. Respondent was also given the chance to build on his response or give further explanation when the need arose in the data collection process.

3.5.2 Secondary data

The researcher used Country reports, Bank of Ghana publications, Magazines, Thesis and Articles that have been written about credit risk management on financial institutions, as secondary sources for the study. All the sampled banks financial statements were used as the main secondary source for the thesis. Further, annual financial report of the Bank was of great help to the researcher where unique data can only be found. Even though, it is not easy to find out the appropriate research materials for the thesis, many studies have been conducted on credit risk management over the last few decades. Nevertheless, from them, the researcher chose the most appropriate literature for the thesis. For this reason, the researcher went through numerous references related to the topic, to find the suitable materials. These materials were mainly collected from the university library and available search tool. Besides these, Google Scholars were used to find the suitable research material.

3.6 Pre-testing

A pre-testing activity of the data collection instruments was carried out to test the adequacy of the questionnaire in eliciting the needed response. Issues focused on were the construction of the English language, validity and reliability of the questions. It was undertaken in two of the branches, which were eventually not part of the actual data collection exercise. There were a couple of ambiguities relating to the construction of the questions, which were subsequently modified to remove any ambiguities regarding the intensions of the researcher. The respondents were asked about their opinions on the nature of the questions but no suggestions were made concerning the revision of the questions. The pilot study was very helpful to the researcher because it gave the researcher the confidence that the questions were going to elicit the needed response required for the study. It also gave an indication to the researcher that there were going to be follow -up questions aimed at clarifying some answers. This made the researcher anticipate and prepare for the possible questions, which made the interview very successful.

CHAPTER FOUR

DATA ANALYSIS, DISCUSSION AND PRESENTATION OF RESULTS

4.1 Introduction

This chapter presents the data analysis and discussions and interpretations thereof. This chapter depicts the findings, which seek to answer the research questions against the background of the objectives of the study. The relationship between profitability and credit risk management, the interrelationships among certain credit risk management indicators and profitability indicator of banks in Ghana are analyzed and discussed in this chapter.

4.2 Tool and Techniques used to mitigate credit risk by CAL BANK

Supervisors of banks more often than not, place considerable importance on formal policies, which are laid down by their boards and aggressively, implemented by management. This is most critical with regard to banks' lending function, which stated that banks adopted sound systems for managing credit risk (Greuning and Bratanovic, 1999).

Credit mitigation techniques of the bank includes collateral, termination clauses, re-set clauses, cash settlement, netting agreements. Portfolio management has been used in balancing the risk appetite and diversification to maximise risk adjusted returns. The bank Board of Directors has delegated responsibility for the day-to-day management of credit risk to the Credit Department and the overall management of credit risk to the Risk Management Department. These departments report to the Board on a quarterly basis.

The bank has created a structure that allows it to track credit risk exposure to an obligor in whatever form it may be generated in the firm's business activities. These forms include loans, fixed-income securities, contingent exposures, liquidity lines, and, with the advent of fake securities, even those exposures that may be embedded within synthetic security baskets. The risk grading system is used in determining where impairment provisions may be required against specific credit exposures. The current risk-grading framework reflects the varying degrees of risk of default and the availability of collateral or other credit risk mitigation. However, the responsibility for setting risk grades lies with the final approving executive / committee as appropriate. Risk grades are subject to regular reviews by the Credit department.

Regular reports are provided to Group Credit on the credit quality of loan portfolio and appropriate corrective action is taken.

Table 4.1The internal Risk Grading Scale is as follows:

Group's Rating	Description of the Grade	Average No. of days Outstanding
A	Current	Less than 30 days
B	Other loans Especially Mentioned	30 days to but less than 90 days
C	Sub-Standard	90 days to less than 180days
D	Doubtful	180 days to less than 360 days
E	Loss	360 days and above

Source: Annual report of the bank, 2008-2013

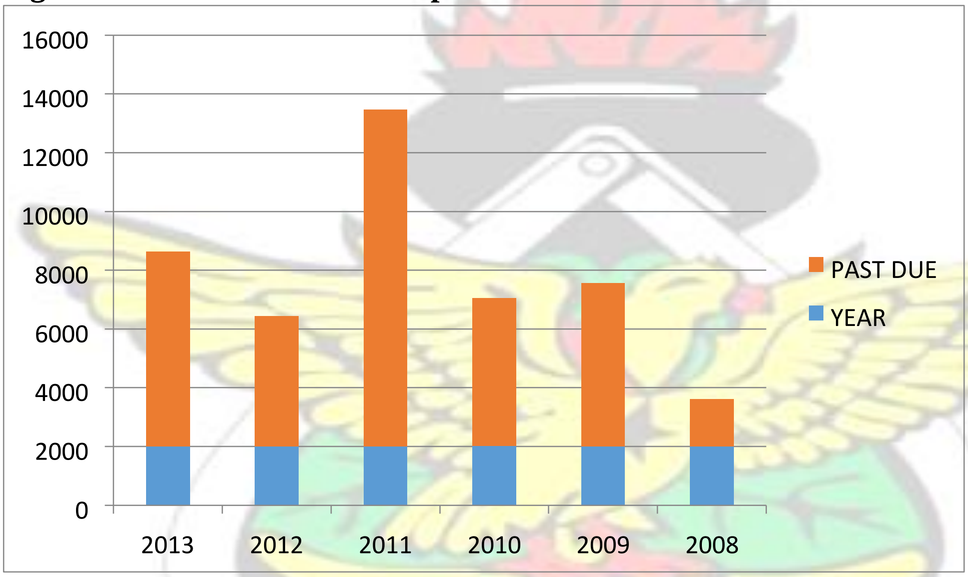
The Risk Management Department monitors and manages the Bank's global credit risk within the appetite approved by the Board and set as limits and controls within the Bank's Risk Management Policy statement. It also and supports the development of good credit risk management practices. Internal Audit undertakes regular audits of business units and Group Credit processes.

Table 4.2: Past Due but not impaired

Group	2013	2012	2011	2010	2009	2008
	GH¢	GH¢	GH¢	GH¢	GH¢	GH¢
B	322	445	6,700	2,378	15	1,475
C	856	2,399	-	458	466	-
D	718	242	1,550	-	2,743	117
E	4,726	1,343	3,208	2,201	2,135	15
Gross Due	6,622	4,429	11,458	5,037	5,559	1,607

Source: Annual report of the bank, 2008-2013

Figure 4.1: Past Due but not impaired



It is seen from the figure that the amount of past due but not impaired increased from GHC1, 607in 2008 to GHC 5,559 in 2009. The amount however declined significantly from the previous amount of GHC 5,559 in 2009 to just GHC 5,037 in 2010. The massive increase in the amount of past due loans but not impaired in 2011 represents poor management of loan portfolio which is however attributable to bad renegotiated loans in 2009 and 2010.This sharp rise is not surprising, looking at the high risk profile of GNPL in 2009 and 2010. This means most of the renegotiated loans slipped into adverse classification in the following year. It is instructive to observe that in absolute terms, the

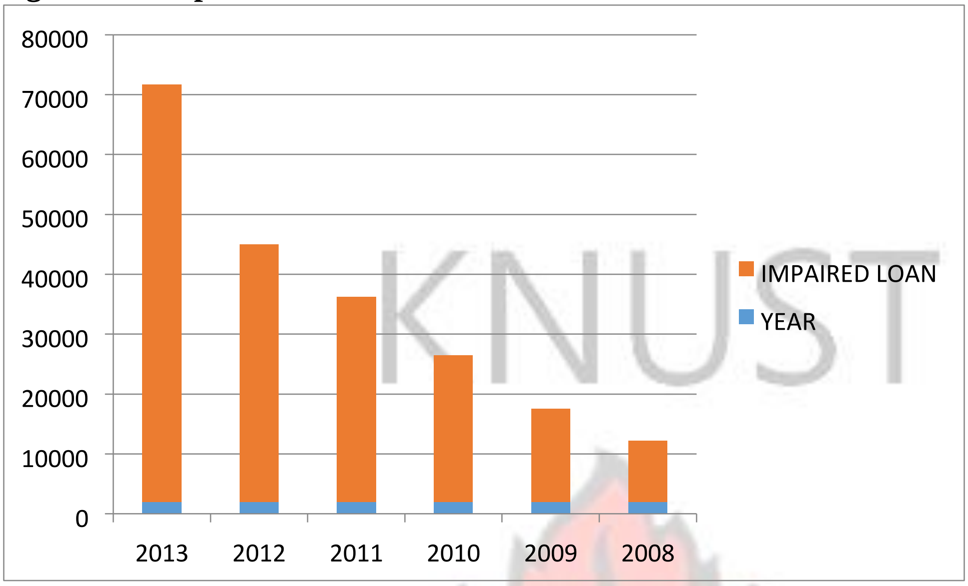
non-performing loan figure for 2010 is larger than the figures of all the remaining years put together. The main reason for this huge amount is that if renegotiated loans are not tracked specially and separately, an indication of the borrower's repayment problem (difficulty) will disappear and he/she is likely to renege on their repayment proposal again.). According to one respondent, management was getting worried about the growing trend of the amount of the past due loans to loan portfolio and instituted measures aimed at halting the trend and that resulted in the significant reduction in the growth of the amount of past due loans but not impaired in
2012.In 2013, there was significant increased in past due loans but not impaired from GHC 4,429 to GHC 6,622. The increased in past due but not impaired in 2013 resulted from renegotiated loans in 2011.

Table 4.3: Impaired Loans

Group	2013	2012	2011	2010	2009	2008
	GH¢	GH¢	GH¢	GH¢	GH¢	GH¢
B	269	17,138		1,794		968
C	33,217	43	5,781	1,863	1,406	1,473
D	8,798	1,008	3,237	2,534	2,079	861
E	27,419	24,815	23,401	19,099	5,007	5,702
Gross Due	69,704	43,004	34,213	24,464	15,497	10,195

Source: Annual report of the bank (2008-2013)

Figure 4.2: Impaired Loans



It is seen from the figure that the amount of impaired loans increased from2008 to 2013 at different increasing rate. This means that, the loans and securities the bank determined that it is probable that it will be unable to collect all principal and interest due according to the contractual terms of the loan agreement kept increasing every year (from 2008 to 2013. According to response from the respondents, the bank has been continuously expanding its loan portfolio by over 50% every year. This continuous expansion of loan portfolio of the bank has accounted for the continuous increase on the impaired loans.

4.3 Sectorial Analysis of Non Performing Loans (NPLs)

Respondent was asked to rank the sectors or sub sectors based on the incidence of NPLs in CAL Bank using their loan portfolios from the sector with the highest incidence of NPLs to the sector with least incidence of NPLs and the results are presented in table 4.4

Table 4.4: Sectoral analysis of NPLs

SECTOR	RANK
Agriculture, Forestry and Fishing	4th
Mining and Quarrying	5th

Manufacturing	3rd
Construction	9th
Electricity, Gas and Water	6th
Commerce and Finance	1st
Transportation, Storage and Communication	7th
Services	2nd
Miscellaneous	8th

The lending activities of CAL Bank are mainly concentrated on nine sub-sectors of the economy namely; 1) mining and quarrying, 2) services, 3) agriculture, forestry and fishing 4) manufacturing, 5) construction, 6) electricity, gas and water, 7) commerce and finance, 8) transport, storage and communication and 9) miscellaneous. The study found out that about 50% of the total loan portfolio is allocated for construction.

It was established from the study that the incidence of NPLs is most prevalent in commerce and finance sector. According to the respondents from the selected branches, the clients of the bank have been facing high cost of trading as a result of depreciation of the cedi over some years now. The response to commerce and finance of being the sector with the highest incidence of NPLs was not surprising because of the currency depreciation, which is obvious in the country. The service sub sector was cited as the sub sector with second largest incidence of non-performing loans in CAL Bank. According to the responses indicated that the sector with the second highest cases of NPLs is the service subsector. According to the respondents from the selected branches, their clients are complaining of high administrative cost as a result of power outages over some years now. Clients need to purchased generators/plants and fuel in order to operate business almost every business day. As mentioned earlier, the sector with about 50% of the total loan portfolio allocation was construction sector. However, construction sector do not contribute much to the total non-performing loans because the buildings are used as a collateral for the loans.

4.4 Credit risk management practice of CAL BANK

This part will deal mainly with how the bank's regulations and the bank's directives are practically followed and implemented and how the bank and the transaction office are performing. The performance evaluation is based on several calculated ratios, the amount of non-performing loans and the loan loss provision.

4.4.1 Compliance with the regulatory policies

The Bank of Ghana has issued several legislations concerning credit activity, typical of which are: the provision of Restrictions on lending and investment by banks (Bank of Ghana Act 2004, Act 663/ PART VI), regulation on Liquidity of banks (Bank of Ghana Act 2004, Act 663/PART IV). regulation on Capital and Reserve of banks (Bank of Ghana Act 2004, Act 663/PART III). The Bank of Ghana Act 2004, Act 663 governing the prudential requirements in bank operations in fact addresses all types of risk. This decision is still critically taken into consideration as credit risk in the subject bank has been identified as the biggest threat and the bank's credit risk management will succeed only when the bank possesses a sound financial capacity.

However big and powerful the bank is in the Ghanaian market, its operation has to comply with the regulations set up by the central bank. The banks indeed have no other choice because BoG frequently and thoroughly conducts inspection into their operations.

4.4.2 Compliance with the bank's policies

Lending Procedures

According to the credit officer that was interviewed, the documents that the borrowers must provide the bank really vary depending on: (i) personal or corporate customer, (ii) new or existing/old client, (iii) the nature of the business. The credit officer apply a consistent evaluation and rating scheme to all its investment opportunities in order for credit decisions to be made in a consistent manner and for the resultant aggregate reporting of credit risk exposure to be meaningful. To facilitate this, a substantial degree of standardization of process and documentation is required in the character, capacity, collateral, capital and conditions. However, traditional financial management texts posit that credit manager would take note of the five Cs of credit – character, capacity, capital, collateral and conditions to evaluate the probability of default (Casu et al, 2006 and; Zech, 2003).

Loan pricing is exercised by the higher-level persons in the credit organization and is not responsibility of the credit officer at the transaction office. What these people do is to ensure the loan interests and terms are properly recommended to customers.

The credit officer is also in charge of monitoring the loan repayment progress and the credit or the collateral quality. Quarterly he has to re-examine the loans and the client's business activity in accordance with bank's credit policies. These re-examinations must be carried out smartly so that the bank can grasp information without hurting the client's trust or pride. The relationship manager, on the other hand, regularly contacts her clients (in a bank a relationship manager handles a group of clients and is responsible for that group only). The main purpose of these contacts is to remind the client of the interest repayment due date but the relationship manager tries to disguise them as a way to ask after the client and reinforce the relationships.

Debt collection normally falls into the authority of credit officers in the branch or the headquarters. Yet the relationship manager can be of great help because they are able to provide the client's full information record or give advice on the client's personal characteristics. The borrower will usually collaborate when he deals with someone he already knows. That is the respondents' personal experience.

When asked if all credit applications are processed in accordance with the lending procedures, an interviewee replies “Procedures are established for us to follow but of course we have to be flexible to high-profile customers. These are often big customer with a long-term relationship with the bank. Also the policies are still in perfection process so fragments are unavoidable. Losses occur but we try to keep them as low as possible”. The credit officer assures me that the flexibility is within an acceptable limit. In addition, to improve customer service, the bank is trying to speed up the credit grant process. If the borrower provides sufficient documents, it takes three days to complete a personal loan application and seven days are given for a corporate loan request.

Collateral Acceptance

In the bank, not all lending decisions are based on collateral. However, when collateral is demanded by the bank, the credit officers only make contracts and send reports regarding the collaterals to their direct manager. Specialist persons in the branch or the headquarters conduct valuation of the collaterals. But once the collateral has been valuated, the credit staffs at the branch do the post-valuation procedures such as finalizing the loan amount, completing the collateral contract and filing the documents.

Policy Review

As far as the respondent knows, the big policies are often reviewed annually but the revision of the smaller regulations is done in a shorter interval. Only when the central bank issues new regulations or the market requires an urgent change are the policies brought up for analysis and modification.

Table 4.5: Regression results of ROE on GNPL and TL/TD

Dependent variable: ROE						
	Co-eff	STD	t-Stat	P-value	R. square	Adjusted R^z
□	16.2552**	38.4449	0.42	0.0390	0.1962	-0.1253
GNPL	-1.3901**	1.6355	-0.85	0.0434		
TL/TD	-0361***	.3185	0.11	0.0614		

** significant at 5% level: *** significant at 10% level

From the above, table 4.5 present regression results for the relationship between credit risk management and profitability of the bank. The table shows that GNPL affects ROE negatively. GNPLR β coefficient is -1.3901, which means that one unit increase in GNPL decreases ROE by 1.3901 units while TL/TD is held constant. At the same time, TL/TD also has a negative β coefficient of –0.0361. This indicates that one unit increase in TL/TD will decrease ROE by 0.0361 units, holding GNPL constant. It could be seen from the table above that, the impact examination revealed that credit risk management indicators (GNPL, and TL/TD) used for this study have a significant inverse relationship on the profitability (ROE) of CAL Bank limited, Ghana.

R square represents the prediction level of variance in ROE by GNPL and TL/TD, which is 0.1962. This means that 19.62% of ROE can be predicted from both GNPL and TL/TD. Between two independent variables GNPL more reliably predicts ROE. Thus, the results of the analysis states that both GNPL and TL/TD have negative and relatively significant effect on ROE, with GNPL having higher significant effect on ROE in comparison to TL/TD.

The results verify the prior assumption that better credit risk management results in better bank performance. We are aware that profitability is an endogenous variable, which means that it can influence the magnitude of non-performing loans and total loan to total deposit, since better profitability affords the FIs to write off more bad loans.

CHAPTER FIVE

SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

In this chapter the summary and explanation of the results derived from the study is presented. The chapter also provides findings, conclusions and recommendations for policy and Future Research.

5.2 Summary of Findings

Credit mitigation techniques include bank guarantees, termination clauses, clauses re established, cash settlement netting agreements. Portfolio Management is used to maximize the balance appetite for risk diversification and risk-adjusted return. The bank also has a structure that makes it possible to monitor the credit risk of a debtor in any form that can be generated in the business activities of the bank. These forms include loans, bonds, and conditional risk, liquidity lines and, with the advent of false titles, including the risks that can be embedded in synthetic security baskets.

It is also instructive to note that among the sectors or subsectors, which focuses on lending to the regulations, trade and finance registered the highest incidence of nonperforming. As the highest incidence of non-performing, the respondent supports why the trade and finance, saying that the bank's customers will have the high cost of depreciation of the cedi due to several years. In fact, the study found CAL Bank. The bank focuses on lending to priority 1) mining and quarrying, 2) services; 3) agriculture, forestry and fisheries 4) manufacturing, 5) construction, 6), electricity, gas and water supply, 7), trade and finance 8) transport, storage and communication, and9) different.

Services are the next area the highest incidence of non-performing. With the service sector of trade and finance and accounting for about 30% of the total portfolio of CAL

Bank, the concentration of the incidence of NPLs in these two sectors must be expected. The sector with about 50 % of the allocation of the total loan portfolio in the construction sector. But in the construction sector does not contribute much to the total non performing loans, because the buildings are used as collateral for loans. It was an observation by credit officer of the bank branch in Kumasi. Fishing and manufacturing sectors of manufacturing, agriculture, forestry and follow in that order in terms of the sectorial incidence of non - performing loans in CAL Bank, as indicated in Table 4.4.

The Bank's lending decisions to be made in a manner consistent with all investment opportunities and implement a coherent system of evaluation and obtained subject to credit risk ratings to be meaningful for the reporting period total .To facilitate this, a significant degree of process standardization and documentation of character, capacity, collateral, capital and conditions for the borrower.

The impact examination also revealed that credit risk management indicators used (GNPL, and TL/TD) for this study have a significant inverse relationship on the profitability (ROE) of CAL Bank limited, Ghana.

5.3 Conclusion

The paper began some research background that interests the author for this particular area. Every economic concern for the banking system, credit risk management, as well as the stability of the global and national stage are the main reasons for the selection of an interesting topic. What is a researcher wants to know after the investigation has clearly defined goals four research objectives and four-research questions relevant .In short, the risk is inherent in each of the daily activities, but cannot always take care. Banking organizations are natural risk takers. Banking risks can be divided into three categories: financial risks (associated with forms of financial position or funding), operational risks (related to internal weaknesses) and Environmental Risks (related to external changes). Credit risk when borrowing party fails to pay its debts (partially or completely) the part of the loans. The credit risk falls under the category of financial risk, and is one of the biggest risks to the banking sector loans to businesses is a key to any banking service. The question of credit risk management is constantly examined and improved. The banks often manage credit risk of an established credit culture shows their attitude towards the organization and the basis for structured credit risk of loans to the company staff and a comprehensive set of policies to regulate the activities of credit throughout the Group.

However, one was best left to the effects of the credit market, the credit risk management of the Bank. In addition, market conditions, which can help or hinder the development of credit risk management, regulatory environment created by the central bank also has an important role to play. The introduction of the theories to the public, but not the final aim of the thesis. What research is of great concern is the use of these theories as a basis for assessing the effectiveness and impact of the effective implementation of credit risk management based on benchmarks consistently.

The thesis was by these theorists to get readers to a much more practical section practices made in banking concepts. Our subject of the bank is exposed to all kinds of risks in the banking sector. Risk management is a distinct organizational structure of the bank and plays an increasingly important in the function of banking activities. As a universal bank in the market, the bank is facing many difficulties in the management of credit risk, as increasing competitive pressure due to the irrational division of the market, bad lending practices based on relationships, and lack of credit information and history .The Bank of Ghana, the central bank and the national regulator, is very active in standardization of credit risk management framework have been in the banking sector with a number of laws that are available on lending by credit institutions for the vital limits of credit, liquidity and capital requirements and reserves on economic ratio in the banking system. Under the supervision of the effectiveness of the central bank is still questionable. On the part of the Bank, it has its own credit culture developed, issued a series of documents related to credit operations, credit and arranged the staff hierarchy. The analysis part, readers get a deep assessment of the credit quality of the bank's risk management practices.

In disrepair, are both good points that are valued and that need improvement. This article ends with some constructive suggestions for the banks and for future research.

5.4 Recommendations for CAL Bank

Credit risk management is in all operational departments of the Bank, especially with the, credit risk management units integrated control.

Banks should always be vigilant in order to be changes in the market and the regulatory environment, so it set in time for the answers to these changes.

Besides the classic credit risk management tools, the bank should really think about the more modern approach such as using credit derivatives. Credit derivative market is still in its infancy, but if there is no bank in active trading market to bloom soon.

We recommend a database of sustainable and reliable credit for banks. In addition to relying on the information center of central bank credit, must have its own data for immediate and faster use of banks when necessary. Input this database should be done at the right time (eg. weekly) for the bank is able to maintain a good relationship with all customers. Any changes to the information or the credit quality of the customer must be updated simultaneously in the system.

5.4.1 Suggestions for further Studies

This study, as well as a lot of books, the practices of credit risk management focuses on loans and profitability of banks only, when in fact, exposure to credit risk in other services such as international payments through the letter of credit programs or funding. New research on the management of credit risk in these services will be invaluable for banks.

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APPENDIX

Questionnaire

Respected Sir/Madam

As a part of Academic Research, I am a student of Kwame Nkrumah University of Science and Technology conducting a research on ***Assessing the effectiveness and impact of Credit Risk Management Practices of CAL Bank.***

I assure you that all information will be held confidential.

Thank you!

(Part one)

1) Please indicate the level of Credit Risk being faced by your bank on the following transactions (on a scale of 1 to 7, where 1 = no risk; 2 = very low; and 7 = very high)
1 2 3 4 5 6 7
I. Direct Lending
II. Guarantees or Letter of Credit
III. Cross Border Exposure

2) (a) Who is responsible for approval of Credit Risk Policy in your bank? (Please tick)
I. Board of Directors
II. Senior Management
III. Credit Policy Committee
IV. Any other, please specify

(b) Which technique/instrument, do you use for Credit Risk Management in your bank? (Please tick)
I. Credit Approval Authority
II. Prudential Limits
III. Risk Ratings
IV. Risk Pricing or Risk Adjusted Return on Capital (RAROC)
V. Portfolio Management
VI. Loan Review Policy
VII. Any other, please specify

3) (a) What is the credit limit for seeking approval from Credit Approval Committee in your bank?

(b) At what level the Approval Committees are set up in your bank? (Please tick)
I. Branch Level
II. Regional Level
III. Zonal Level
IV. Head Office Level
(c) Please indicate the relative importance of the following aspects of credit, you consider while defining prudential limits (on a scale of 1-7, where 1 = not used; 2 = unimportant; 7 = very important)

1 2 3 4 5 6 7

I. Stipulate Benchmark for ratios
II. Single/Group borrower limits
III. Exposure limits
IV. Maximum exposure limits to Industry
V. Consideration of Maturity Profile of Loan Book

(d) Does your bank perform the following activities for Credit Risk Management? (Please tick)
I. Industries Studies\Profiles II. Periodic Credit Calls
III. Periodic Visits of Plants
IV. Develop MIS
V. Credit Risk Rating/Risk Scoring
VI. Annual Review of Accounts

4) (a) At what interval the Credit Risk assessment is repeated in your bank?
Monthly
Quarterly
Bi-annually
Annually

(b) Do you prepare 'Credit Quality Reports' for signaling loan loss in any portfolio? Yes No

(c) Have you developed 'Risk Adjusted Return on Capital (RAROC)' Framework for Risk? Pricing in your bank? Yes No

5) Please indicate, the relative importance of the following factors you consider for pricing Credit Risk (on a scale of 1 to 7, where 1 = not used, 2 = unimportant; 7 = very important)
1 2 3 4 5 6 7

I. Portfolio Quality
II. Value of Collateral
III. Market forces
IV. Perceived value of accounts
V. Future business potential
VI. Portfolio Industry Exposure
VII. Strategic Reasons
VIII. Any other, please specify _____________

6) (a) At what interval the 'Loan Policy' is reviewed?
Monthly
Quarterly
Bi-annually
Annually

(b) Who review the 'Loan Policy' in your bank? (Tick the appropriate)
I. Board of Directors
II. Credit Administration Department
III. Loan Review Officer
IV. Any other, please specify

7) (a) Have you developed any framework to study the inter-bank exposures?
Yes No
(b) Please indicate the relative importance of the following aspects that you consider for evaluating bank-wise exposures (on a scale of 1 to 7, where 1 = not used, 2 = unimportant; 7 = very important)
1 2 3 4 5 6 7
I. Study of Financial Performance
II. Operating Efficiency
III. Management Quality
IV. Past Experience
V. Bank rating on Credit Quality
VI. Internal Matrix for studying counter party or country risk

(c) Does your bank use 'Derivatives' to manage Credit Risk?
Yes No

8) Which approach you are using for measuring capital requirement for Credit Risk?
I. Standardized Approach
II. Foundation Internal Rating Based Approach
III. Advanced Internal Rating Based Approach

(Part two)
1) Which credit risk management mechanism do you think is the most important to reduce credit risk of universal banks of our country?
A) Screening and monitoring
B) Credit Rationing
C) Collateral Requirements
D) Long-term Customer Relationship
E) I don't know

2) After you select among the alternatives for question number (1), would you explain why you prefer among the other alternatives please?

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3) What do you think the impacts of credit risk management towards profitability of banks? A negative
B positive

4) After you choice your own answers for question number (3), please explain how credit risk management negatively/positively/ affects profitability?

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5) What do you think the problem will be, if there is poor credit risk management is there in the bank?

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6) How do think credit risk management helps to increase profitability of your bank?

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7) Which risk do you think highly affects profitability of profit making banks In Ghana? A) Credit risk

B) Liquidity risk

C) Market risk

D) Operational risk

8) Please explain why, after you select answer for question number ―7‖

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9) What are actions that you are going you take after recognizing non-performing loan exist?

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10) As expert of credit risk management, what do you recommend to make our banks more profitable than before?

Thank you for your help