

**THE ROLE OF DUE DILIGENCE IN CREDIT RISK MANAGEMENT
AND FINANCIAL FRAUD RISK PREVENTION AT KWAMANMAN
RURAL BANK**

By

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DECLARATION

I hereby declare that this submission is my own work towards the MBA (Finance) and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for award of any other degree of the University, except where due acknowledgement has been made in the text.

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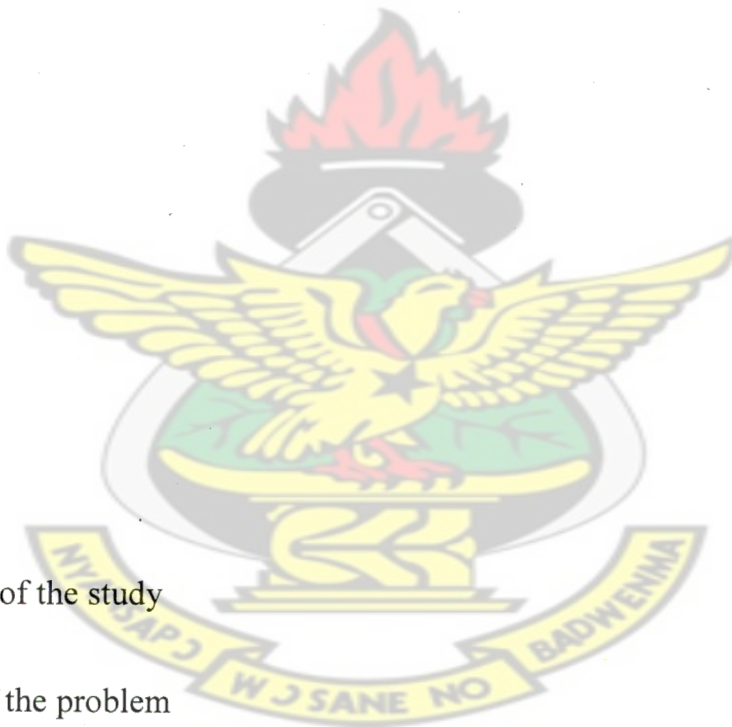
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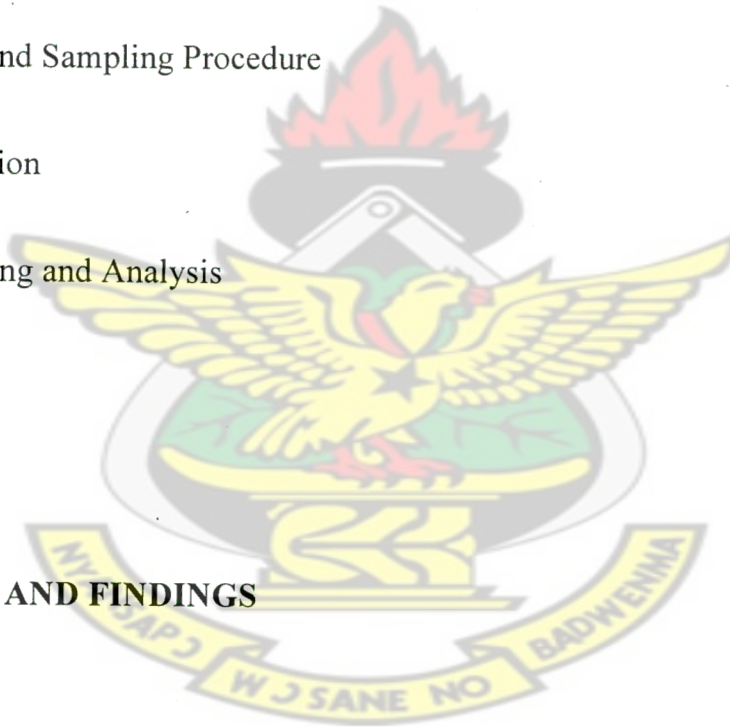
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ABSTRACT

The research was designed to explore the role of due diligence in credit risk management and financial fraud risk prevention in credit administration of Kwamanman Rural Bank. The findings of this study are relevant as far as the achievement of the set objectives were concerned. The findings made are narrated as follows:

The study discovered generally, that non-performing loans were a major source of the Bank's crises and were caused by bad lending practices adopted by the Bank such as improper assessment of risk of borrowers, insider lending or lending of fraudulent loans, inclement macroeconomic situation of the nation, and incorrect data obtained from borrowers or customers of the Bank. It was revealed that at the root of these problems was the issue of little or lack of verification of information turned up by the borrower; a process called due diligence. The Bank has not adopted any credit scoring system nor has been measuring the risk of borrowers by any system. Meanwhile, credit-scoring tools are observed to be necessary to assist the loan officer in making loan decisions, controlling and monitoring loan portfolio risk and isolating loans that need additional attention. The credit risk management tools used by the Bank included, credit limit for credit officers, guarantors and group guarantee for group lending. The Bank has sacrificed due diligence on the altar of incessant quest for high profitability which has been thought to be part of the soaring non-performing loans on the books of the Bank. The Bank has lent to high risk borrowers, a situation which is thought to be the cause of even the current global financial crises that originated from the developed countries. Due diligence helps to identify risks that are within acceptable limits of the bank so that appropriate amount of capital is held to cover such risks. Risk-adjusted pricing of loans was not adopted and therefore the Bank was thought to be under-pricing risk and hence reducing profitability and value to shareholders. The Know-Your-Customer (KYC) regulation being enforced by the Bank of Ghana is not fully complied with because of

the difficulty of obtaining information from customers of the Bank and lack of expertise in information gathering and investigation. The KYC policy was envisaged would help in the prevention of financial frauds committed on the Bank, but this was observed to be having little or no impact on fraud prevention as evidenced by the fact that the Bank is not making its implementation a priority. As a matter of urgency, the Bank must adopt a holistic approach to due diligence involving; due diligence on the borrower itself, due diligence on borrower's project and due diligence on collaterals offered by the borrower. This is because the approach helps in identifying the risk that is acceptable to the bank and how to manage such risks. The identification of the risk turned up by due diligence should not prevent the lender from doing the deal, but instead enabled it to fashion terms that will make the risk acceptable.



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CHAPTER ONE

INTRODUCTION

1.0 Background

The major cause of serious banking problems continues to be directly related to lax credit standards for borrowers and counterparties, poor portfolio risk management, or a lack of attention to changes in economic or other circumstances that can lead to deterioration in the credit standing of a bank's counterparties (Basel, 2000).

Credit risk affects virtually every financial contract. Therefore the measurement, pricing and management of credit risk have received much attention from financial economists, bank supervisors and regulators, and from financial market practitioners (Altman et al, 2002).

Secured lenders are making sophisticated background investigations a routine element of their due diligence these days and no wonder. The times are uncertain, and that makes it imperative for lenders to gather far more information about their borrowers than they can glean from the sources usually used in the past, including the borrowers themselves (Scherzer, 2003)

There is no doubt that this new caution gives new meaning to the phrase "credit risk management", and it is a trend likely to bring important change to the lending industry, with substantial benefits to lenders' own bottom lines.

Through due diligence or background investigation the lender gets to know the borrower and thereby reducing the uncertainty (increasing predictability) about the borrower's behaviour. This agrees with Scherzer (2003) that it pays to know your borrower and lenders already know this, but in the past they took the truism to mean

[1]

that they needed to know everything possible about the assets securing the loan and the business to which those assets accrued. Thus, lenders analyzed and tracked such assets as receivables and inventory, studied financial statements, checked business and bank references, pored over their own files, and studied credit information gathered from such sources as Dun & Bradstreet. But given human nature, collateral is sometimes only as good as the character of the borrower; Scherzer alluded.

When it comes to credit granting, most companies have several levels of protocols and procedures to ensure that they are dealing with a reputable company and that when it comes time for customers to pay their invoices, they will be paid according to terms. The procedures are sometimes referred to as due diligence or credit risk management (Tzanis, 2008).

Guidelines are developed by banks particularly to identify risk factors that should be examined as part of a thorough and effective due diligence process that addresses both credit risk, and the risk of fraud and corrupt practices. When it comes to the lender's bottom line, there is a difference between the borrower who feels the obligation to pay a debt in good and bad times alike and the borrower who, having offered inventory or receivables as security, considers it the lender's problem if things go wrong. When dealing with people in the former category, you gain security from two elements: the collateral for your loan and the character of your borrower. When dealing with people in the latter category, you have only the collateral, and it can disappear.

Due diligence conducted on customers (Customer Due Diligence), right from the time of account opening with the bank has also become a global regulatory issue for all financial institutions recently. Customer due diligence is one of the best defences a

financial institution can maintain to guard against the dangers of credit risk, money laundering and other financial crimes. Sometimes referred to as “knowing your customer,” customer due diligence encompasses other aspects of an AML (Anti-Money Laundering) program, such as customer identification and enhanced due diligence (Geister, 2008). Moreover, the need for customer due diligence is integral to suspicious activity reporting requirements because the data collected during the customer due diligence process gets transferred to the report.

There are many reasons for conducting due diligence, including the following:

- Confirmation that the business is what it appears to be;
- Identify potential "deal killer" defects in the target and avoid a bad business transaction;
- Gain information that will be useful for valuing assets, defining representations and warranties, and/or negotiating price concessions; and
- Verification that the transaction complies with investment or acquisition criteria (Astute Due Diligence, 2009).

In screening loan applications it is almost a standard practice, where feasible, for banks to seek information about the potential borrowers from other sources. Invariably, for commercial and development banks, this amounts to asking other bankers for their references. In Ghana many bank managers indicated that, while this may occasionally yield vital information, it is often not very useful as a screening tool since other banks seldom have information about their customers. The due diligence process in Ghanaian banks therefore, requires extra effort in order to yield good results due to lack and insufficiency of information on customers, majority of which are small borrowers.

Consequently, high costs or difficulty in obtaining and processing information about the borrower and the project can deter banks from offering credit to small borrowers because they regard this information as critical for assessing creditworthiness.

Additionally, small borrowers form the clientele of the rural banks in Ghana. Invariably, rural banks are to help in realizing the Millennium Development Goals (MDGs) of eradicating poverty, economic empowerment of women etc. but they are faced with high default rates due to insufficient due diligence performance and other factors.

Kwamanman Rural bank, with 7 branches in the Ashanti Region, has not been performing creditably in recent times. There have been relatively huge provisions made for bad debts on the Bank's books, resulting largely from credits granted to its customers. There are also reported cases of financial crimes committed on the bank running into millions of cedis. For instance, the Serious Fraud Office (SFO), Ghana; 2005 annual report published that one branch manager of the said rural bank granted unauthorized or fraudulent loans to the tune of GH¢75,700.00. If these losses are not reduced, the bank may go bankrupt and thereby impact negatively on the achievement of the Millennium Development Goals (MDGs), shareholders' value and the needs of the inhabitants of its immediate environs (fulfillment of social responsibility). Due diligence might be of great importance in the credit administration of this bank, if performed properly.

1.1 Statement of Problem

For most banks, loans are the largest and most obvious source of credit risk; however, other sources of credit risk exist throughout the activities of a bank, including: in the

banking book and in the trading book, and both on and off the balance sheet (Basel, 1999).

Small borrowers which form the chunk of customers of rural banks do not have collaterals to guarantee for their loans. However, their clientele base is small borrowers. No wonder the rural banks have been offering credit to these customers that offer no or little collaterals. There is therefore, high credit risk due to expected and unexpected loan default faced by the rural banks. Lack of expertise in financial due diligence, credit risk management and financial fraud detection and prevention has resulted in huge loan losses to these rural banks. Such is the case of Kwamanman Rural Bank, the subject of this research.

For most banks collateral requirements could be relaxed, if a sound loan insurance or guarantee fund were available to provide risk coverage (Aryeetey, 1996). In the absence of such insurance, the risk of borrower default and project non-viability is expected to be pursued through more thorough due diligence activities. The rural banks are also faced with the difficulty of complying with the Bank of Ghana regulation on Customer Due Diligence (Know-Your-Customer) due to lack of expertise in gathering information on the customers and high illiteracy level of the customers.

The Kwamanman Rural bank has been reporting huge provisions for bad debts over the past years, resulting from credit risk and financial fraud risk. These losses originated largely from perceived lack of due diligence in the credit administration process. This research is therefore; set out to answer the following research questions:

1. Does performance of due diligence have any impact on credit risk management and fraud risk prevention?

2. What factors are responsible for loan defaults and has the Bank determined that it holds adequate capital against these risks and that it is adequately compensated for risk incurred?
3. What are the implications of fraud and credit risks on operations of the Bank and what tools and practices are adopted to mitigate these risks?
4. What are the impediments to the Bank in achieving KYC compliant status?

1.2 Objectives of the Study

The general objective of the study is to explore the role of due diligence in credit risk management and fraud risk prevention.

The specific objectives are:

1. To explore credit risk management tools and practices adopted by Kwamanman Rural Bank
2. To assess the contribution of due diligence to credit risk management and fraud risk prevention in credit administration of the Bank
3. To identify the factors responsible for loan defaults in the Bank
4. To examine the extent to which the Bank is complying with the “Know-Your- Customer (K. Y. C)” due diligence being enforced by the Bank of Ghana (BOG) aimed at reducing financial fraud in financial institutions
5. To recommend due diligence process that reduces credit risk and financial fraud risk and makes more credit accessible to customers.

1.3 Overview of Methodology

In this study two methods of obtaining data will be used, namely Primary sources and Secondary sources. Primary data will be derived from relevant textbooks, field survey

through questionnaires, interviews, discussions and close observation of processes and procedures of the general way lending activities are carried out in the Bank. Secondary data on the other hand, will be extracted from published works, typically; journal articles, financial statements, annual reports etc.

1.4 Justification of the Study

Rural banks form the vehicle through which funds are made available to small borrowers and the vulnerable poor of the society. It stands to reason that every nation/society/stakeholders would be interested in the performance of their rural banks in terms of consistently providing finance to the people. Therefore, if rural banks were not able to significantly mitigate credit risk due to poor regard for due diligence and laxity in prevention of financial fraud, resulting in huge bad debts or provisions for same, then the efforts of making credit available and accessible would be fruitless in achieving MDGs and profitability. In other words, loans are not repaid, depriving the banks of needed funds for further lending.

Credit risk largely affects the cost of credit that is transferred to the borrower (Aryeetey, 1996). There is therefore, the need to investigate thoroughly, the due diligence process involved in granting credit and how it impacts on credit risk management and prevention of fraud risk.

This study will therefore, in no doubt reveal new and improved ways of conducting financial due diligence in credit transactions for rural banks and for the financial sector in general. One of the Millennium Development Goals is poverty reduction. It is a fact that poverty reduction strategy can be achieved when funds are consistently made available to rural poor to assist them in setting up income generating activities. This study will provide good due diligence procedures that will enhance repayment of

loans (reduce credit risk) and thereby sustaining the poverty reduction strategy of the state through the rural banks and also improve shareholders value.

The research will establish due diligence procedures that will improve on the credit risk management position of the Bank (Kwamanman Rural Bank) and also reduce financial crimes to the barest minimum. The bank will also be in a better stead to fulfilling the regulation of the Central Bank in respect of Know-Your-Customer (KYC).

1.5 Scope of the Study

The study covered the period from 2001 to 2008. Therefore, the financial statements and reports of the bank covering this period were examined. The examination of the financial statements and reports concentrated on provision for bad debts as proxy to non-performing loans. The interviews, questionnaires, discussions and observations were extended to all the seven (7) branches of the bank. By virtue of the location of the bank, this research was centralized in the Ashanti Region. The study was limited to credit risk management and fraud risk prevention and did not cover other areas of risk management. The due diligence in this research considered nothing more than due diligence with reference to credit administration, credit risk, customers (Customer Due Diligence) and credit related fraud risk prevention in a bank setting.

1.6 Limitations of the Study:

Limitations of this study include; limited access to the bank's prime books of entry which would have revealed detailed information on credit related financial frauds and actual bad debts due to poor due diligence and financial fraud. For instance, access was denied to individual ledger accounts of customers who have defaulted in paying

their loans due to the banks customer confidentiality policy. Therefore, provisions for bad debts were used as proxy to non-performing loans. Another limitation has to do with financial constraints. The research involves travelling from one branch to another. Lack of funding for this research has therefore, restricted the number of travels and hence the researcher's inability to do exhaustive observations and interviews. Since the research was conducted in a bank setting, the busy nature of the environment was likely to impact on the responses to interview questions and questionnaires. Notwithstanding these limitations, the researcher made maximum use of all resources at his disposal to achieve the objectives of the research.

1.7 Organization of the Study

The research is organized into five chapters. Chapter one deals with introduction. The introduction involves the background of the research, statement of problems, objectives of the study, methodology of the study, scope of the study, limitations and organization of the study. The second chapter reviews literature on the research. The literature review revolves around literature on financial due diligence as it applies to credit administration, literature on credit risk management and financial fraud risk prevention. The third chapter describes the methodology of the study. This chapter narrates detailed methods that were used to gather information and analyze data. Chapter four gives accounts of results and discussions of the study. The last chapter (chapter five) deals with summary, conclusion, suggestions and recommendations of the study

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

In the most general sense, due diligence is an investigation into a customer/company's worthiness for receiving credit and/or cooperation. Your due diligence should answer the question: "Is this potential partner worth trusting and entering into a relationship with?"

The concept of due diligence has been with us from the very beginning of transactions between strangers. The Roman's said; "buyer beware" and others said; "know the people with whom you do business". This practical advice forms part of the general process by which reasonable business people inform themselves about the transaction they are contemplating so they may satisfy themselves, their superiors, their shareholders, or their principals that the transaction is what it appears to be (Duffy, 1995).

Due diligence activity is necessitated by the likelihood of one party reneging in its obligations of the transaction thereby leading to breaches via default in payments and even fraudulent transactions. Banks are exposed to the risk of default in loan repayments (referred to as credit risk) and the risk of fraud. In looking at credit risk, we are seeking to determine the basic exposure of the bank in all areas of credit extension.

Consequently, a detailed customer due diligence is required if we are to achieve good level of satisfaction in credit risk management and fraud risk prevention.

The literature review seeks to examine the nature of due diligence in the credit approval process, credit risk management and fraud risk prevention. The literature review also covers the various risk management tools and models used by the authors in their assessment of credit risk. The state of customer due diligence in Ghana was also examined and to a large extent, bank fraud types and their prevention techniques were also captured by the literature.

2.1 THE CONCEPT OF DUE DILIGENCE

Due diligence refers to the task of carefully confirming all critical assumptions and facts presented by a borrower and includes verifying sources of income, accuracy of financial statements, value of assets that will serve as collateral, the tax status of the borrower and any other material facts presented by the borrower (<http://www.secured-loan.co.uk/glossary-loans2.html>).

Raghavan (2005) noticed in his article: "Credit as well as Risk Management" that till recently, all the activities of banks were regulated and hence operational issues were not conducive to risk taking. He observed that the financial sector, now, wears a relaxed and liberated look and the banks have grown from being a financial intermediary, in the past, to a risk intermediary, at present. He asserted that adherence to standards of quick decision and providing adequate and need based financial assistance on attractive but safe terms, without losing sight of the associated risks involved therein, appears to be a difficult proposition.

Raghavan(2005) again, noted that it is very much essential to conduct credit investigation before taking up a proposal for consideration and this preliminary study should lead to valuable information on borrower's integrity, honesty, reliability, credit

worthiness, management competency, expertise, associate concern, guarantor, etc. He believes that a due diligence report should invariably, accompany the credit proposal evaluation. The article recommends that banks have to strictly adhere to the Know Your Customer (KYC) norms to ensure bonafide identification of borrowers and should also follow the prescribed Fair Practice Code on Lenders Liability, by evolving their own best practices to be followed by the field functionaries, so as to avoid complaints from customer at a later date. The author revealed that when the security oriented approach was followed, economic activities and banking products were simple and “instances of frauds and forgeries were few and far in between.

Scherzer (2003) authored the article: “How to make Due Diligence pay off”. In his view, given human nature, collateral is sometimes only as good as the character of the borrower. He realized that when it comes to the lender’s bottom line, there is a difference between the borrower who feels the obligation to pay a debt in good and bad times alike and the borrower who, having offered inventory or receivables as security, considers it the lender’s problem if things go wrong. The author found out that when dealing with people in the former category, you gain security from two elements: the collateral for your loan and the character of your borrower; and when dealing with people in the latter category, you have only the collateral, and it can disappear.

According to the author, in recent years, the lure of profit has drawn many commercial banks into offering asset-based loans. He remarked that given the financial muscle of many commercial banks, this creates a fierce competition for the best business borrowers, driving every lender in the marketplace to limit risk and push

costs down, all in the midst of an economy whose uncertainties make it hard to come by good business borrowers under any circumstances.

Scherzer (2003), asserted that those lenders that make routine use of detailed background investigations know they are better off because a lender cannot successfully secure any loan by weighing only financial and credit data on the borrower. The author again, observed that if not required to give a personal guarantee on the loan, most borrowers commonly won't offer much personal information, much less damaging information.

Additionally, what personal information lenders get from a borrower is usually cursory: the borrower's representation that he or she owns a house worth so much money, drives a car costing so much, has never declared bankruptcy, has no criminal record, has never been sued, and faces no tax liens or regulatory action, and the like.

He concluded that good due diligence, including a thorough background investigation of the principals involved, can make a difference and in a competitive marketplace, that alone is enough to explain why so many lenders now commission background investigations as a matter of routine.

2.1.1 Approaches to Due Diligence Performance

Geister (2008) developed three approaches to Customer Due Diligence (CDD). They include the Risk-Based Approach, Enhanced Due Diligence Approach and Technological Approach. In the Risk-Based Approach, the author noted that it is important to keep in mind that CDD begins at account opening and that the process of determining the level of Anti Money Laundering (AML) risk that your new customer poses to your institution should also be a fundamental part of this process. He emphasized that the first step in efficient CDD is getting as much information as

possible at the beginning of your institution's relationship with the customer and having a senior management approved customer identification program (CIP) that includes thorough information gathering and verification procedures is essential for assuring that you have enough data to assign an accurate level of risk to your new customer. The author thought that not having enough information or having inaccuracies in the information that you do collect is likely to create a "domino effect" that may lead to your institution being used to launder funds and a subsequent regulatory or criminal penalty.

In addition to having a risk-based approach, the author observed that regulators expect your institution's written CIP to have processes for verifying customer data. He explained that this can be done both through physical documents or non-documentary methods. The first method requires the collection of a driver's license, passport, or other government-issued identification. Methods for the latter include speaking to the customer, consumer credit-reporting agencies, the internet, other financial institutions, and publicly available databases.

The study revealed that documentary methods today are not enough to cover the entire spectrum of risk, and therefore, one should also review non-documentary methods that are consistent with the institution's policies. The author noted that if the identity of your customer cannot be verified, your CIP should also include policies that detail when an account should not be opened, when it should be closed and when a suspicious activity report should be filed.

The author concluded as follows:

- All of the information collected at account opening should be kept for five years after the account is closed. These records should include copies of IDs, an explanation of any non-documentary methods that were used, and the outcome of any verification discrepancies that may have occurred during the CIP process.
- A sound customer identification program should have procedures intended to give your institution as much information necessary in order to make an accurate evaluation of who a customer is and what to expect from them. It should be risk-based and approved by management.
- All related records should be kept, organized and accessible; and above all else, should convey that your institution understands the connection between customer identification and the ability to efficiently monitor for suspicious activity.

Schezer (2003), recommended some steps to be taken in background investigation (due diligence) of borrowers. The first step in any background investigation is to verify this information by checking the applicant's address and Social Security number and inspecting motor vehicle and court records for misdemeanor and felony criminal proceedings, along with personal and business credit and banking references.

The next step is that the lender wants to know whether the borrower is shading the truth. Scherzer (2003), emphasized that it was only by obtaining the information turned up by a background investigation that the lender could come to a fair judgement as to the specific risk involved in making a loan. The information obtained

should not prevent the lender from doing the deal, but instead enable it to fashion terms that will make the risk acceptable.

Enhanced due diligence (EDD) is explained by Geister (2008) as a process that has come under greater scrutiny with the passing of the regulations set out by the USA Patriot Act Section 312 and the implementation of the Third EU Money Laundering Directive into Member State's domestic legislation. Both mandate an increased level of monitoring for customers who are considered high-risk.

In meeting the challenge, Geister (2008), recommended that EDD on non-bank financial institutions should include obtaining the information necessary to ensure an accurate risk assessment of the business and the questions that should be asked include:

- What types of products and services does it offer?
- Where is the institution located and what markets does it serve?
- What type of activity is anticipated on the account?
- What is the purpose of the account?

Geister (2008), derived the third approach of using Technology from the observation that with all the requirements today for identifying customers, conducting due diligence and enhanced due diligence, and monitoring transactions, it would be nearly impossible to comply without the assistance of a high-tech system designed specifically for that purpose. Major financial institutions are extremely complex entities with vast branches in numerous cities and states. Under the law, in order to “know their customers” banks and others must monitor countless transactions, often

made with little or no face-to-face contact. To do so without an equally complex and yet flexible computer system would be impractical.

The author found out that indeed, implementation cost, both in time and money, of adequately assessing risk, properly conducting enhanced due diligence, and choosing the appropriate CDD solution is well worth it, in that in the end, these steps may ultimately save your institution's reputation and millions of dollars in lost revenue.

2.1.2 Due Diligence by Banks in Ghana

According to a report by the Bank of Ghana, the Basel Committee on Banking Supervision in its paper on Customer Due Diligence for Banks published in October 2001 issued guidelines for the implementation of Customer Due Diligence for Banks. The report intimated that the purpose of the document was to assist banks to recognize the importance of ensuring that they have adequate controls and procedures in place to enable them know the customers with whom they are dealing. The document was also intended to provide the framework that will serve as benchmark for supervisors to establish national practices and for banks to design their own programmes. The requirements of the document were consistent with Principle 15 of the Basel Core Principles Methodology which states that "Banking supervisors must determine that banks have adequate policies, practices and procedures in place, including strict 'know-your-customer' rules, that promote high ethical and professional standards in the financial sector and prevent the bank from being used intentionally or unintentionally by criminal elements.

In pursuance of the above objectives, the Banking Supervision Department (BSD) reportedly circularized the due diligence document to the banks for their guidance in

establishing know-your-customer policies and procedures. The article indicated that after nearly two years the BSD observed that most banks have not developed comprehensive KYC procedures and that the banks were not moving quickly enough to conform to international standards in this respect.

The Bank of Ghana then developed a format that ensures that banks in the country develop clear customer acceptance policies and procedures that include guidance on the types of customers that are likely to pose a higher than average risk to the banks, including managerial review of such prospective customers where appropriate (<http://www.bog.gov.gh>). This due diligence concern is now being pursued by all banks in Ghana as a matter of regulatory obligation with many of them being unable to satisfy the requirements, the article confirmed.

2.1.3 Due Diligence in the Credit Approval Process

Christl and Pribil (2004), studied due diligence in the credit approval process by considering the steps leading up to the credit review, which involve collection and analysis of data on credit applicants. They explained that the execution of the credit review is based on external and internal data on the credit applicants. They added that for extensive exposures especially, considerable resources may be tied up in the process of collecting the data, checking the data for completeness and plausibility, and passing on the data to people in charge of handling, analyzing, and processing the exposure within the bank. Their study established that assessment of a credit applicant's credit standing is based on different data sources and data types in accordance with the type of borrower. In any case, a bank must always be interested in having comprehensive and current data on the economic and personal situation of the borrower.

The authors intimated that credit review incorporates not only economic data but also qualitative information concerning the borrower and therefore, the account manager should thus include a complete and critical picture of the borrower. The authors also argued that in addition to individual borrower data, many cases will require general information on the economic situation of a region or an industry to allow a comprehensive assessment of credit application and here, the bank can make use of external sources. The study again revealed that if a bank's credit portfolio shows a focus on certain industries or regions, banks are advised to conduct their own analyses of the economic situation in these fields and this is particularly true if the available external information lacks the necessary detail and/or currency.

Batra(2008), observed that due diligence, pre-dominantly, is carried out by the lenders under three different heads and stages. These include:

- Due diligence in respect of the borrower itself: Stage I
- Due diligence in respect of the borrower's Project: Stage II
- Due diligence in respect of the securities: Stage III

Batra (2008), observed that once the borrower submits its proposal and applies to the lenders for finance, the mechanism and clock of due diligence is put into operation. Immediately, on receipt of the application and proposal for borrowing, the lender starts examining the credibility of the applicant borrower and that of its promoters. She found that basically, there are two documents which are examined by the lenders to ascertain the integrity and credibility of the borrower; these are, first, the introductory brochure or the background note or the profile of the borrower and secondly, the last few years' audited annual reports/balance sheets of the borrower. She added that if need be the lenders seek additional documentary material from the

borrower or its auditors. Batra (2008) revealed that depending on case to case, the lenders may engage lawyers to carry out a general search in the local courts of law so as to find out pendency of any legal proceedings against the borrower including that of winding up etc.

On conclusion of Stage I, the lenders proceed to examine the viability of the project in respect of which financing is being sought; referred to as stage II. Here the applicant borrower submits a detailed project report highlighting the details and projections of the proposed turnover, profit etc. for the next ten years. The in-house project experts of the lenders also examine the said project report in detail.

The author established that due diligence in respect of the securities (Stage III) is the most important stage of due diligence. On having decided in principle to sanction credit in whatever form to the applicant borrower, the lender stipulates the type and nature of securities required from the borrower so as to secure the credit. She added that apart from the above, certain other documentation is also obtained by the lender from the borrower such as personal guarantees, corporate guarantees, post dated cheques, promissory notes, indemnity bond, undertakings etc. It was established by the article that the lender through its lawyer carry out a search in the office of the concerned Registrar of Companies (ROC) (wherein the borrower is a company) to ascertain whether the property is free from all encumbrances, lien and other charges.

The author concluded that an effective due diligence programme can prevent, detect and deter violations of terms of lending, and compliance with the finance terms and conditions if it is made a continuing obligation and does not apply only when a new borrower-lender relationship is commenced. Relationships acceptable at their

inception may change materially and furthermore, early detection of lack of credibility of the borrower or may be its integrity can also protect a lender from being cheated, defrauded and deceived.

2.2 CREDIT RISK MANAGEMENT

Anbar (2006) defined Credit Risk as the risk of losses caused by the default of borrowers. Default occurs when a borrower cannot meet his financial obligations. Credit risk can alternatively be defined as the risk that a borrower deteriorates in credit quality. According to Anbar (2006), this definition also includes the default of the borrower as the most extreme deterioration in credit quality. Lopez and Saldenberg (2000) also define credit risk as the degree of value fluctuations in debt instruments and derivatives due to changes in the underlying credit quality of borrowers.

Basel (2000) pointed out that the goal of credit risk management is to maximize a bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters. Banks need to manage the credit risk inherent in the entire portfolio as well as the risk in individual credits or transactions. Banks should also consider the relationships between credit risk and other risks. The effective management of credit risk is a critical component of a comprehensive approach to risk management and essential to the long-term success of any banking organization (Basel, 2000).

Waweru and Kalani (2009), in his work "Commercial Banking Crises in Kenya: Causes and Remedies", indicated that due to the nature of their business, commercial banks expose themselves to the risks of default from borrowers. Their work discovered that prudent credit risk assessment and creation of adequate provisions for

bad and doubtful debts can cushion the banks risk. However, when the level of Non-Performing Loans (NPLs) is very high, the provisions are not adequate protection.

According to a study by Brownbridge (1998), most of the bank failures were caused by non-performing loans. Arrears affecting more than half the loan portfolios were typical of the failed banks. He added that many of the bad debts were attributable to moral hazard: the adverse incentives on bank owners to adopt imprudent lending strategies, in particular insider lending and lending at high interest rates to borrowers in the most risky segments of the credit markets.

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2.2.1 Risk-Based Pricing of Loans

Baxley and James (2005), in their study titled; “Risk Management in Pricing a Product” believe that with the concentration by both regulators and bankers on risk management, the time has come for banks to price their loans based upon some measure of risk related to loan price or reward to the bank. They compiled the various authors that support this position (although they arrive at the concept in differing ways) as follows: Sinkey (1998) believes that you should score the credit predicting creditworthiness of the borrower using a statistical model; Koch (1995) is of the opinion that banks have generally underpriced loans because they have understated risk, and therefore, they should identify both expected and unexpected losses, incorporating both in the risk charge for a loan. While Baxley and James certainly agree that both Sinkey and Koch have developed scholarly and workable approaches to the incorporation of risk, they realized the authors are more concerned with developing a pricing mechanism that can be utilized equally well by the small community bank and the large regional bank.

Their study concluded that regardless of the method chosen, risk must be an integral part of the loan pricing scenario to adequately compensate the bank for credit exposure and utilizing this pricing method, a bank over several years time would have a reasonably accurate means of pricing to incorporate risk.

Bramma (1999) in his research work: "An evaluation of bank credit policies for farm loan portfolios using the simulation approach", found that promised interest rates charged on loan securities are comprised of four key components when priced for credit risk: the risk free rate, the default risk premium, the security risk premium and the portfolio risk premium. The study propounded that for a particular borrower, the default risk premium and the security risk premium are added together to give a certainty-equivalent risk premium. The author added that this risk premium allows lenders to be compensated for expected losses on loan securities held by a borrower.

Bramma's work further established that pricing for credit risk is efficient so long as risk concentrations are not excessive and the default risk of borrowers remains independent of the promised rate of interest. Also at the portfolio level, excessive risk concentrations for most lending institutions may arise as a result of dissimilar sized borrowers and disproportionate numbers of borrowers in different low-order definitions of regions and industries. Maximum portfolio concentration limits may therefore be defined for different categories of borrowers in order to limit excessive risk concentrations. Minimum portfolio limits may be used to assure risk spreading across a sufficient number of region-industry segments within a risk class. His study revealed that lenders also manage the impact of unexpected losses on their portfolio returns through adequate allocations of equity capital on particular portfolio segmentations.

2.2.2 Credit Risk Management Tools

Parlour and Winton (2008), in their work titled: “laying off Credit Risk: Loan Sales Versus Credit Default Swaps” indicated that after making a loan, a bank finds out if the loan needs contract enforcement (monitoring) and also decides whether to lay off credit risk in order to release costly capital as a means of credit risk management. They found out that a bank can lay off credit risk by either selling the loan or by buying insurance through a credit default swap (CDS). With a CDS, the authors explained that the originating bank retains the loan's control rights but no longer has an incentive to monitor; but with loan sales, control rights pass to the buyer of the loan, who can then monitor, albeit in a less-informed manner.

According to Chritl and Pribil (2004), the commonly used tools of credit risk management include:

- risk-adjusted pricing of individual loan transactions
- setting of risk limits for individual positions or portfolios
- use of guarantees, derivatives, and credit insurance
- securitization of risks
- buying and selling of assets.

They emphasized that risk monitoring is used to check whether the risks actually incurred lie within the prescribed limits, thus ensuring an institutions capacity to bear these risks. The authors ascertain that quality of credit approval processes depends on two factors, i.e. a transparent and comprehensive presentation of the risks when granting the loan on the one hand, and an adequate assessment of these risks on the other.

2.2.3 Credit Risk Assessment and Credit Scoring/Rating Models

In his article: 'Credit as well as Risk Management', Raghavan (2005) observed that banks are yet to fully move from credit rating to the risk rating of a borrower. He explained that when a borrower secures 95% marks and rated AAA, what is implied is credit rating is 95 (AAA) & the risk rating is 5. He argued that the mindset should change from credit rating to risk rating and proper system should be put in place in this regard.

Credit-scoring models examine the creditworthiness of customers by assigning them to various risk groups. These models provide predictions of default probabilities by using statistical classification techniques, and they group them by risk class (Lopez and Saidenberg, 2000). Small Business Credit Scoring (SBCS) is a relatively new technology for lending to informationally opaque small businesses that involves processing data about the firm and its owner using statistical methods. The outcome is a score, or summary statistic about the borrower's expected future loan performance (Feldman 1997, Mester 1997).

Although credit scores have been used for some time in the underwriting of consumer loans, this technology has only recently been applied to small commercial credits, which had been thought to have non-standardized documentation and to be too heterogeneous (Rutherford, 1995). However, credit analysts ultimately determined that the personal credit history of small business owners is highly predictive of the loan repayment prospects of the business.

The personal information used in SBCS models may include the owner's monthly income, outstanding debt, financial assets, employment tenure, home ownership, and previous loan defaults or delinquencies (Mester 1997). The personal information is

obtained from one or more consumer credit bureaus and may be combined with data from commercial credit bureaus and basic business-specific data collected by the bank to enter into the prediction model. Aryeetey (1996) also found out in his study of the formal financial sector of Ghana after the reforms, that group lending schemes have become very popular for agricultural lending to the extent that bankers consider references from other banks as irrelevant for lending.

Mester (1997) again, established that in the long run, the use of SBCS may help in the development of a secondary market for pools of small business debt, similar to the way in which consumer credit scoring helped in the development of secondary markets for consumer debt.

According to Caire and Kossmann (2003), Credit scoring cannot predict individual loan loss; rather it predicts the likelihood or odds of a “bad” outcome, as defined by each bank – usually this will be some level of average or total days in arrears at which associated costs make the loans unprofitable. Nor should a credit scoring system alone approve or reject a loan application; rather the underwriter must decide how he or she will incorporate the credit score into the loan review. Finally, credit scoring is not meant to increase approval rates; rather, it promotes consistency and efficiency while maintaining or reducing historic delinquency rates. It also allows the users to focus their attention and time on applications that are not obvious approvals or obvious declines.

Jouault and Featherstone (2006) proposed two sets of issues that must be addressed before modeling credit risk. First, the accuracy of the inputs is critical. They explained that once the credit risk model is constructed, it is important to validate because

historical data do not usually span sufficiently long time periods. They agreed with Obrecht (1989), that the purpose of credit-scoring models is to assist the risk evaluation and management process of individual customers and loan portfolios. Credit-scoring tools are necessary to assist the loan officer in making loan decisions, controlling and monitoring loan portfolio risk and isolating loans that need additional attention. The fundamental goal of a credit risk rating system is to estimate the risk of a given transaction.

Christl and Pribil (2004) also found out that the quality of the credit approval process from a risk perspective is determined by the best possible identification and evaluation of the credit risk resulting from a possible exposure. They confirmed the view of Obrecht (1989) that credit risk can be distributed among four risk components which have found their way into the new Basel Capital Accord (in the following referred to as Basel II).

- a. Probability of default (PD)
- b. Loss given default (LGD)
- c. Exposure at default (EAD)
- d. Maturity (M)

Their work established that the most important components in credit approval processes are PD, LGD, and EAD. While maturity (M) is required to calculate the required capital, it plays a minor role in exposure review. They recognized that reviewing a borrower's probability of default is basically done by evaluating the borrower's current and future ability to fulfill its interest and principal repayment obligations. The revelation emphasized that this evaluation has to take into account various characteristics of the borrower (natural or legal person), which should lead to

a differentiation of the credit approval processes in accordance with the borrowers served by the bank.

Furthermore, it has to be taken into account that for certain finance transactions such as interest and principal repayments should be financed exclusively from the cash flow of the object to be financed without the possibility for recourse to further assets of the borrower. In this case, the credit review must address the viability of the underlying business model, which means that the source of the cash flows required to meet interest and principal repayment obligations has to be included in the review. The loss given default is affected by the collateralized portion as well as the cost of selling the collateral. Therefore, the calculated value and type of collateral also have to be taken into account in designing the credit approval processes.

Gustafson et al (1991) defined two types of approaches to credit risk assessment: the transactional approach which focuses on credit risk assessment tools, and the relational approach which in addition to credit scoring models, relies on the relationship between lenders and borrowers so as to evaluate other factors such as management capacity. They found that the traditional approach to agricultural lending relies on the relationship between the loan officer and the borrower. This relationship allows for a reduction in the asymmetric information between borrower and lender that arises from the fact that borrowers are familiar with their business, financial position and repayment intentions, and those characteristics are not easily observable by lenders. On the other hand, the transactional places a greater reliance on financial ratios and places less focus on a relationship. While the goal of a risk rating system is to produce accurate and consistent ratings, professional judgment and experience are

allowed as part of the rating process. They concluded that judgemental rating systems are more costly but the benefits may outweigh the costs for larger banks.

Ellinger et al (1992) surveyed lenders to determine the use of credit evaluation procedures. They found that 62% of respondents used a credit scoring model to assist in loan approval, loan pricing and loan monitoring. This proportion increased with bank size. Most of the actual credit rating systems rely on financial ratios but some research has been extended to nonfinancial ratios.

2.3 FINANCIAL FRAUD RISK PREVENTION

Dr. Paul Acquah; the Governor of Bank of Ghana (BOG), in his speech delivered at a seminar on financial fraud investigation for the police and bank investigators, defined financial fraud in legal terms as “the criminal offence of knowingly executing, attempting to execute a scheme or artifice to defraud a financial institution, or to obtain property owned by or under the control of a financial institution by means of false or fraudulent pretences (Acquah, 2006).

KPMG Forensic (2006) prepared a paper on Fraud Risk Management: “Developing a Strategy for Prevention, Detection, and Response”. According to the paper, Fraud is a broad legal concept that generally refers to an intentional act committed to secure an unfair or unlawful gain and Misconduct is also a broad concept, generally referring to violations of laws, regulations, internal policies, and market expectations of ethical business conduct. The paper puts forward that fraud and misconduct together, fall into the following categories of risk that can undermine public trust and damage a company’s reputation for integrity:

- Fraudulent financial reporting (e.g., improper revenue recognition, overstatement of assets, understatement of liabilities)
- Misappropriation of assets (e.g., embezzlement, payroll fraud, external theft, procurement fraud, royalty fraud, counterfeiting)
- Revenue or assets gained by fraudulent or illegal acts (e.g., over-billing customers, deceptive sales practices, accelerated revenue, bogus revenue)
- Expenses or liabilities avoided by fraudulent or illegal acts (e.g., tax fraud, wage and hour abuses, falsifying compliance data provided to regulators)
- Expenses or liabilities incurred for fraudulent or illegal acts (e.g., commercial or public bribery, kickbacks)
- Other misconduct (e.g., conflicts of interest, insider trading, discrimination, theft of competitor trade secrets, antitrust practices, environmental violations)

The authors emphasized that an effective, business-driven fraud and misconduct risk management approach is one that is focused on three objectives:

- ❖ Prevention: controls designed to reduce the risk of fraud and misconduct from occurring in the first place.
- ❖ Detection: controls designed to discover fraud and misconduct when it occurs.
- ❖ Response: controls designed to take corrective action and remedy the harm caused by fraud or misconduct.

The paper again projected some programmes that could be put in place to carry out the prevention aspect of Fraud and misconduct risk management including: Fraud and misconduct risk assessment, establishment of code of conduct and related standards, employee and third party due diligence, communication and training and Process-specific fraud risk controls.

In respect of detection, the paper recommended the following programmes: Hotlines and whistleblower mechanisms, auditing and monitoring and proactive forensic data analysis.

The authors concluded that programmes such as internal investigation protocols, enforcement and accountability protocols, disclosure protocols and remedial action protocols could be very tangible ways of responding to fraud and misconduct.

2.3.1 Types of Bank Fraud

Bank fraud is defined as the use of fraudulent means to obtain money, or other property owned or held by a financial institution (Wikipedia, 2008). Bank fraud is also considered to be a white-collar crime.

The Wikipedia cited various mechanics of bank fraud. They include: Rogue traders, fraudulent loans, wire fraud, forged or fraudulent documents, uninsured deposits, Demand Draft fraud, Forgery or Altered Cheques, Stolen Cheques, Accounting Fraud, Bill Discounting Fraud, Cheque Kiting, Payment Card Fraud (such as Booster Cheques and Stolen Payment Cards), Impersonation, Fraudulent Loan Applications, Prime Bank Fraud, the Fictitious 'Bank Inspector', Phishing and Internet Fraud and Money Laundering.

Wikipedia described fraudulent loan as follows: One way to remove money from a bank is to take out a loan, a practice bankers would be more than willing to encourage if they know that the money will be repaid in full with interest. A fraudulent loan, however, is one in which the borrower is a business entity controlled by a dishonest bank officer or an accomplice; the "borrower" then declares bankruptcy or vanishes

and the money is gone. The borrower may even be a non-existent entity and the loan merely an artifice to conceal a theft of a large sum of money from the bank.

Fraudulent loan applications, according to Wikipedia, take a number of forms varying from individuals using false information to hide a credit history filled with financial problems and unpaid loans to corporations using accounting fraud to overstate profits in order to make a risky loan appear to be a sound investment for the bank. Some corporations have engaged in over-expansion, using borrowed money to finance costly mergers and acquisitions and overstating assets, sales or income to appear solvent even after becoming seriously financially overextended. The resulting debt load has ruined entire large companies, leaving banks exposed to massive losses from bad loans.

Forged documents are often used to conceal other thefts; banks tend to count their money meticulously so every penny must be accounted for. A document claiming that a sum of money has been borrowed as a loan, withdrawn by an individual depositor or transferred or invested can therefore be valuable to a thief who wishes to conceal the minor detail that the bank's money has in fact been stolen and is now gone.

Insider lending is another type of bank fraud that has ruined banks financially. According to Brownbridge (1998), the single biggest contributor to the bad loans of many of the failed local banks was insider lending. In at least half of the bank failures, insider loans accounted for a substantial proportion of the bad debts. Most of the larger local bank failures in Kenya, such as the Continental Bank, Trade Bank and Pan African Bank, involved extensive insider lending, often to politicians

The threat posed by insider lending to the soundness of the banks was exacerbated because many of the insider loans were invested in speculative projects such as real estate development, breached large-loan exposure limits, and were extended to projects which could not generate short-term returns (such as hotels and shopping centres), with the result that the maturities of the bank's assets and liabilities were imprudently mismatched. He sites three forces behind insider lending and lists them as political pressure, under-capitalization, over concentration in ownership. He further observes that the second major factor contributing to bank failure were the high interest rates charged to borrowers operating in the high-risk segments of the credit market. This involved elements of moral hazard on the part of both the banks and their borrowers and the adverse selection of the borrowers.

Ribadu (2004), in his paper titled: "Implications of Economic and Financial Crimes on the nation's Economy", revealed that financial institutions can be involved in financial crime in three ways: as victim, as perpetrator, or as an instrument. According to him, under the first category, financial institutions can be subject to the different types of fraud including, e.g., misrepresentation of financial information, embezzlement, check and credit card fraud, securities fraud, insurance fraud, and pension fraud. Under the second (less common) category, the author intimated that financial institutions can commit different types of fraud on others, including, e.g., the sale of fraudulent financial products, self dealing and misappropriation of client funds. In the third category are instances where financial institutions are used to keep or transfer funds, either wittingly or unwittingly, that are themselves the profits or proceeds of a crime, regardless of whether the crime is itself financial in nature. One of the most important examples of this third category is money laundering.

2.3.2 Bank Frauds in Ghana

Dr. Paul Acquah (the Governor of BOG) in 2006 delivered a speech at a seminar on financial fraud investigation for police and bank investigators which indicated that bank frauds are perpetrated by insiders or outsiders to the bank or by way of collusion between them, and their acts take the form of embezzlement, misappropriation of funds, aiding and abetting, making false entries in books or statements, making false statements in credit applications, money laundering and other fraudulent practices. He added that the effects of these nefarious activities on financial institutions and their stakeholders as well as on the national economy can be devastating and the vulnerability of the banks to such fraud has been heightened by technological advancements.

Dr. Acquah mentioned that there exists a fruitful collaboration between the BOG and the Law Enforcement Agencies in financial crime prevention and prosecution. The governor confirmed that the banks in Ghana have shown invaluable understanding and co-operation with the BOG in enforcing the Know Your Customer Policy guidelines, in order to weed out suspicious characters from the banking system.

The SFO (1998), reported that it discovered a huge debt of over GH ₵ 100,000.00 in the accounts of various customers of the defunct Ghana Co-Operative Bank and these loans could not be recovered due to inadequate information on the debtors. This has led to the collapse of the bank. SFO (1998) again reported that some eleven companies had benefited from a £10 million short term line of credit granted by Midland Bank of United Kingdom in 1994 through the Bank of Ghana (BOG), but failed to discharge the debts. The investigations found that vetting procedures for assessing the viability of the companies to ensure repayment were not proper, some of

the companies did not use the loans for the purposes for which they were given. The documentations for the loans were not adequate as to the locations of the companies and the Bank of Ghana did not ensure any securitization for the loan. The BOG did not also have project officers to monitor the use of the loans.

According to the SFO's 2005 report Mfantseman Community bank management granted fraudulent loans to the tune of about GH¢120,000 which has resulted in losses to the bank. The investigations revealed that the management staff granted loans to their family members in situations of blatant conflict of interest.

2.3.3 Bank Fraud and Due Diligence

BITS Financial Services Roundtable (2003) has among other things recommended some fraud risk mitigating tools such as having a know- your- customer (KYC) policy that includes the following, for personal account opening:

- Proper identification of the customer;
- Validation of the customer's residence or place of business;
- Consideration of the source of funds used to open an account; and
- Checking with a service bureau, if applicable, for undesirable customer behaviour such as insufficient funds or check kiting.

Another recommendation by the BITS is the financial institution also having adequate ongoing monitoring systems in place to identify suspicious transactions, such as structuring, transactions inconsistent with the nature of a customer's stated business purpose, and unusual wire activities. Various operational controls are available to mitigate fraud risk, including:

- Monitoring transactions coming in and going out of deposit accounts using reports that identify a certain threshold and history of the activity over a specific time frame;
- Creating reports that monitor large dollar deposits; and
- Tracking ATM activity based on dollar thresholds over a certain time frame.

Ribadu (2004) hinted that financial frauds have led to the collapse of many banks in Nigeria and frauds have equally led to the loss of confidence in the banks not only local but also the international business community. The author established that letters of credit from Nigeria are held in suspect and in many cases disregarded out rightly and the Know Your Customer and Business (KYC[B]) principle is observed more in breach than compliance.

According to the Committee, KYC safeguards go beyond simple account opening and record-keeping and require banks to formulate a customer acceptance policy and a tiered customer identification programme that involves more extensive due diligence for higher risk accounts, and includes proactive account monitoring for suspicious activities (Basel, 2001).

The Basel Committee's interest in sound KYC standards originates from its concerns for market integrity and has been heightened by the direct and indirect losses incurred by banks due to their lack of diligence in applying appropriate procedures. At the same time, sound KYC procedures have particular relevance to the safety and soundness of banks, in that:

- They help to protect banks' reputation and the integrity of banking systems by reducing the likelihood of banks becoming a vehicle for or a victim of financial crime and suffering consequential reputational damage;
- They constitute an essential part of sound risk management (e.g. by providing the basis for identifying, limiting and controlling risk exposures in assets and liabilities, including assets under management).

The Committee noted that inadequacy or absence of KYC standards can subject banks to serious customer and counterparty risks, especially reputational, operational, legal and concentration risks.

It is worth noting that all these risks are interrelated. However, any one of them can result in significant financial cost to banks (e.g. through the withdrawal of funds by depositors, the termination of inter-bank facilities, claims against the bank, investigation costs, asset seizures and freezes, and loan losses), as well as the need to divert considerable management time and energy to resolving problems that arise. The Committee established that certain key elements should be included by banks in the design of KYC programmes. Such essential elements should start from the banks' risk management and control procedures and should include (1) customer acceptance policy, (2) customer identification, (3) on-going monitoring of high risk accounts and (4) risk management

CHAPTER THREE

METHODOLOGY

3.0 Introduction

The previous two chapters reviewed the literature pertaining to due diligence, credit risk management and financial fraud risk (bank fraud) prevention. This chapter describes the research methodology used in this study. The population, sample and the sampling approach is described. Furthermore, the instrument that was used in the research is described and its applicability discussed. A brief profile of the Bank is also narrated in this chapter. Finally, a brief description of the relevant statistical techniques used in the study is also provided.

According to Babbie and Mouton (2004), there are different types of social research methods that can be identified from literature, namely exploratory research, descriptive research and explanatory research. Peil (1982) stated that much of the social research, especially in developing countries, sets out to explore a new era or at least one about which little is known in the local context. This aptly describes the present research as the first of its kind in Kwamanman Rural Bank. Thus, the nature of this study lends towards exploratory research; exploring the role of due diligence in credit risk management and financial fraud risk prevention as being practiced within Kwamanman Rural Bank.

Selltiz et al (1966) suggest that for any research to be purposeful, it should discover answers to the research questions. They emphasize that there are three research strategies by means of which exploratory research can be conducted:

- A review of related social science and other pertinent literature.

- A survey of people who have had practical experience with the problem to be researched.
- An analysis of “insight-stimulating” examples.

The above three exploratory research strategies aptly apply to the present study as it entails the review of pertinent literature, survey of credit officers and insightful examples.

3.1 Organizational Profile

Kwamanman Rural Bank was established under the Rural Banking Act in 1982. The Bank today, has seven (7) branches in the Ashanti Region with the head office located at Kwaman. The staff strength stood at 150 at the time of this research. The Bank was set up on the following visions:

1. To promote credit creation through vigorous savings mobilization.
2. Application of best practices and procedures for quality service delivery and customer satisfaction.
3. To encourage private entrepreneurship by supporting micro enterprises and agro based production concerns with adequate and timely services.
4. Recruitment and development of the best human resources to carry out the Bank’s mandate.

The mission of the Bank is: “To be among the pacesetters of the banking industry through rigorous application of best practices and procedures for excellent customer service and stakeholder satisfaction”. In order to run with its vision and achieve its mission, the Bank offers the following products or services to its customers and the general public:

- ❖ **Micro-credit:** Small groups ranging between 5 and 20 members are granted credit with the group serving as guarantee for the loan
- ❖ **Traditional banking products** namely: current account, savings account and fixed deposits ratio which offers negotiable interest rates
- ❖ **Susu deposits;** which involves mobile banking at the doorsteps of customers.
- ❖ **Apex link transfer:** Here non-customers are also allowed to transfer money to any part of the country using this service and
- ❖ **E-zwich services** introduced by the Bank of Ghana recently to enhance cash transactions by reducing the handling of physical cash.

These services were the main sources of credit and financial fraud risks exposures to the Bank, especially in the area of micro-credit.

3.2 Goals of the Research

The overall goal of the research is to identify different dimensions of due diligence that have an influence on credit risk management and financial fraud risk prevention. Thus, the main objective of the study is to investigate the role of due diligence in credit risk management and financial fraud risk prevention in Kwamanman Rural Bank of Ashanti Region. From the identification of the broad objectives of the research, the specific objectives were derived. The results of the research could mould how future due diligence will be configured within the company being researched, for management of credit risk and prevention of financial fraud risk.

3.3 Research Design

The research was conducted within the post-positivist paradigm. This philosophical stance sees a researcher as an objective analyst and an interpreter of tangible social

reality (critical realism), giving the former independence from the research, the ability to critically evaluate the evidence and generalize (Remenyi & Williams, 1996).

According to Adams and Schvaneveldt (1985) “research design refers to a plan, blueprint or guide for data collection and interpretation i.e. a set of rules that enable the investigator to conceptualize and observe the problem under study”. Figure 3.1 below provides a schematic diagram of the research method proposed. This method consists of the following steps: selection of research method; population and sampling; questionnaire selection; data collection; data capturing; data statistical analysis.

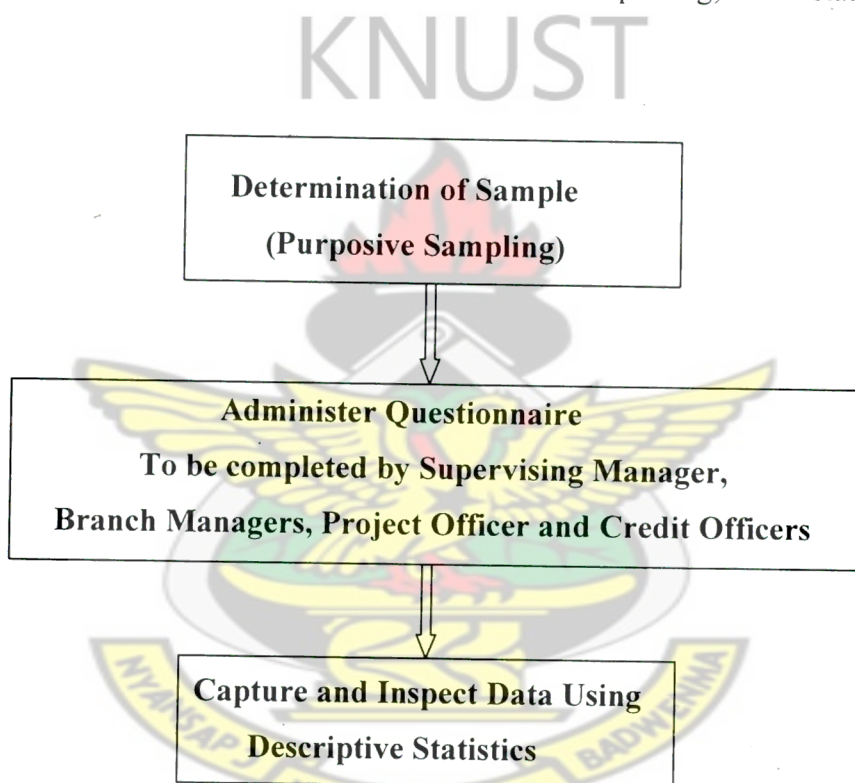


Fig 3.1 Schematic representation of the general research design

3.4 Ethical Considerations

Ethical considerations of confidentiality and privacy were addressed, taking into consideration the fact that the company under research is a banking institution. A

concerted and conscious effort was made at all times to uphold this promise. A guarantee was given to the Bank's respondents that their names were not revealed in the research report.

3.5 Population and Sampling Procedure

A research population is described as a group to which the researcher wants to generalize (Trochin, 2000). He also explained a sample as the group of people that are selected to be in the study. This was supported by Sekaran (2000) when he defined a sample as a subset of the population in question and comprises a selection of members from that particular population. The definition of the sample is of vital importance because the results of an investigation are not trustworthy more than the quality of the population or representativeness of the sample.

The target sample for this study included staff of the credit department for all the branches involved in the credit granting process (including supervising manager, branch managers and the project officer). The staff strength of the credit department is four per each branch, including the headquarters branch. Therefore, the total relevant sample size is thirty (30). This sampling is referred to as Purposive Sampling since it enables the researcher to select cases that helped in answering the research questions and meeting the research objectives. The composition of the research sample include: the supervising manager, seven(7) branch managers, one(1) project officer, and twenty-one (21) staff of the Loans departments.

3.6 Data Collection

According to Bless and Higson-Smith (2000), there are three common methods of data collection, namely, observation, interviews and questionnaires. Sekaran (2000)

suggests that questionnaires are an efficient data collection mechanism provided the researcher knows exactly what is required and how to measure the variables of interest. Questionnaires can be administered personally, mailed to the respondents or even electronically distributed depending on the situation (Sekaran, 2000).

A list of all branch Managers, staff in the Loans Department and all other staff having anything to do with administration of credit in the bank, including the Project Officer and the Supervising Manager was obtained. The researcher then distributed the questionnaires to all the staff involved at all the seven branches of the Bank and took their mobile phone numbers in order to contact them at a later date. In an attempt not to disrupt business operations, the respondents were given time to complete the questionnaires. Additionally, most of them were contacted via phone at their convenience, where they were assisted to complete questionnaires in the form of telephone interview.

3.7 Data Capturing and Analysis

A questionnaire was used in this research to obtain information on the various dimensions of due diligence performance by the Bank in relation to lending, credit risk management practices, and financial fraud risk prevention.

Once the questionnaire copies had been completed, the researcher then coded the responses in each questionnaire for the purpose of analysis. The codes were then captured in the Scientific Package for Social Scientists (SPSS) and Microsoft Excel Spreadsheet software programmes for statistical analysis of the responses to the questions that seek to address the research problems and achieve the research objectives. Secondary data including data on provisions for bad debts from 2001 to 2008 from the Bank were also analyzed using these software programmes.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.0 INTRODUCTION

This chapter analyzes the trend in the provision for bad debts as a proxy to non-performing loans experienced by the Bank over the period 2001 to 2008. The chapter also presents and discusses the results of the research. Descriptive statistics was used to summarize quantitative data. This helped to interpret and understand the results.

4.1 TREND ANALYSIS OF PROVISIONS FOR BAD DEBT

It is worth noting that provision for bad debts was used as a proxy to non-performing loans. The real bad debts could not be used for this analysis due to the Bank's policy on maintaining confidentiality. Non-performing loans were defined by the Bank as facilities which payments of principal and interest are past due by three months or more.

As shown in figure 4.1 below, the study discovered that indeed, there was a deterioration of asset quality of the Bank over the period (2001 to 2008) under the research. The trend showed that there was a sharp increase in provision for bad debts from 2002 to 2004. There was a little drop from 2004 to 2006 and finally, an increase in the provisions again but in this case, it increased at a decreasing rate. The researcher observed that the drop in provision for bad debts was due to improvement in macroeconomic situation of the nation rather than improvement in credit risk management practices of the Bank. This is because the trend after the period 2006 was an upward surge, attributable to the declining health of the economy. Interest and

inflationary rates have gone up from the period 2006. The study gathered that the percentage provisions for bad debt ratio of 34.3% for 2008 was the first time highest, manifesting the seriousness of macroeconomic situation (see Appendix 6). The percentage ratio of provision for bad debts for 2009 is expected to go higher if the economic situation did not improve and credit risk management is not given a high priority in the lending activities of the Bank.

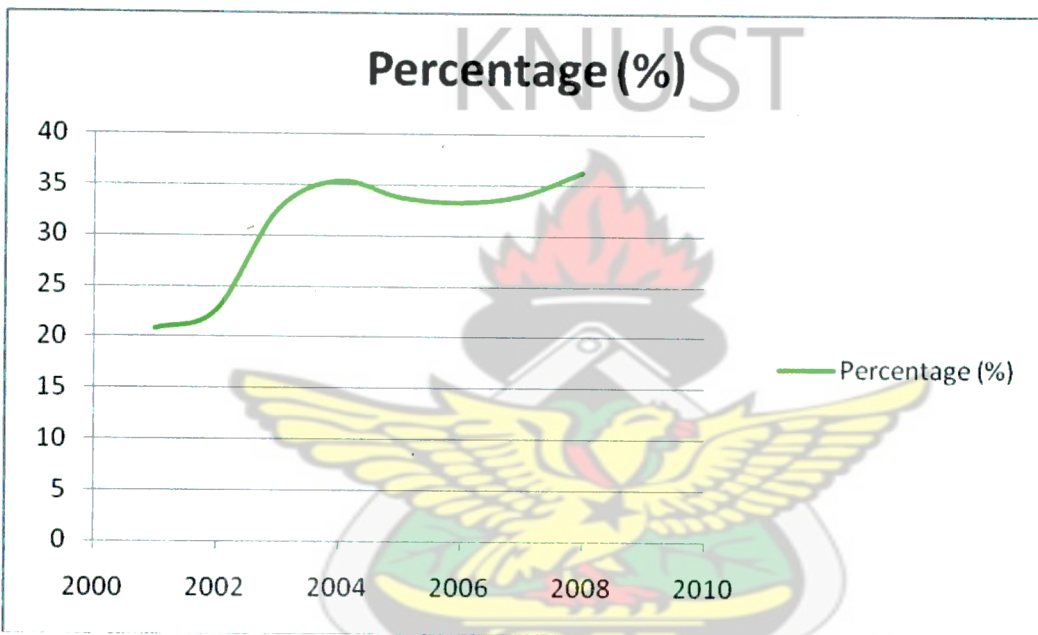


Fig 4.1 Trend of Provisions for Bad Debts

4.2 FINDINGS FROM THE QUESTIONNAIRES ADMINISTERED

4.2.1 Response Rate

All the branch managers successfully completed and returned the questionnaires. Other staff including the supervising manager and the project officer also duly completed and returned the questionnaires. In all a total of 30 questionnaires were completed and returned, resulting in a response rate of 100%. The 100% response rate was achieved through the simultaneous use of telephone to assist the respondents.

4.2.2 Educational Background

The study revealed that from one branch to the other the level of education of most staff (46.7%) in the loans department was GCE/SSCE/WASSCE. This includes staff that process loan applications and compute loan figures. Some personnel (26.7%) are in various stages of the accounting professional qualification. The supervising manager and all the branch managers have completed tertiary level education (first degree) and only play the role of approving loans and general supervision. No specific role of credit risk management was assigned to any staff. The project officer as the name suggests, monitors the projects of loan beneficiaries. These are shown in the tables 4.1 and 4.2 below. It is worth noting that none of the staff had qualification in neither banking nor risk management. This is likely to impact on their approach to credit risk management in the Bank and thereby resulting in the high default rates being experienced by the Bank.

Table 4.1 Educational Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	GCE/SSCE/WASSCE	14	46.7	46.7	46.7
	Tertiary	8	26.7	26.7	73.3
	Professional Qualification	8	26.7	26.7	100.0
	Total	30	100.0	100.0	

Table 4.2 Roles Played in Granting of Loans

		Frequency	Percent	Valid Percent	Cumulative Percent
	Monitor Customer's Project	1	3.3	3.3	3.3
	Compute Loan Figures	19	63.3	63.3	66.7
	Approving Loans	9	30.0	30.0	96.7
	Loan Recovery	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

4.2.3 Distribution of Customers

Customers obtaining credit from the Bank were identified to include; farmers, salary workers, petty traders (mainly market women), student-teachers, small and medium scale enterprises (SMEs) and auto mechanics/artisans. The distribution of these customers was according to geographic location of the branches. It was obvious from the study that farmers obtain credit from branches located in towns surrounded by farming communities. These included Mampong, Beposo, Nsuta and Kwaman branches. Two branches at University College of Education, Winneba, Kumasi Campus (UCEWK) and Mampong were patronized by student-teachers due to their nearness to teachers' educational facilities. The last category of customers identified by the study was auto mechanics/artisans. This category obtained credit from the Old Tafo and Amakom branches. As indicated in the Figure 4.2 (also see Appendix 5) below, farmers received most credit from the Bank wherever the branches are located in towns surrounded by farming communities.

However, the branches of the Bank in the Kumasi city: UCEW-K, Amakom and Old Tafo offered more credit to petty traders than other categories of customers. This implies that credit risk concentrations are impacting on the asset generation of the Bank and must be taken into consideration when choosing a suitable credit risk management strategy for the Bank. In another instance the study discovered that pricing for credit risk is not practiced by the bank, let alone any attention paid to credit risk concentrations. Therefore, the bank's exposure to credit risk concentrations from its lending activities is raising its level of risk exposure and needs attention to avoid further accumulation of non-performing loans.

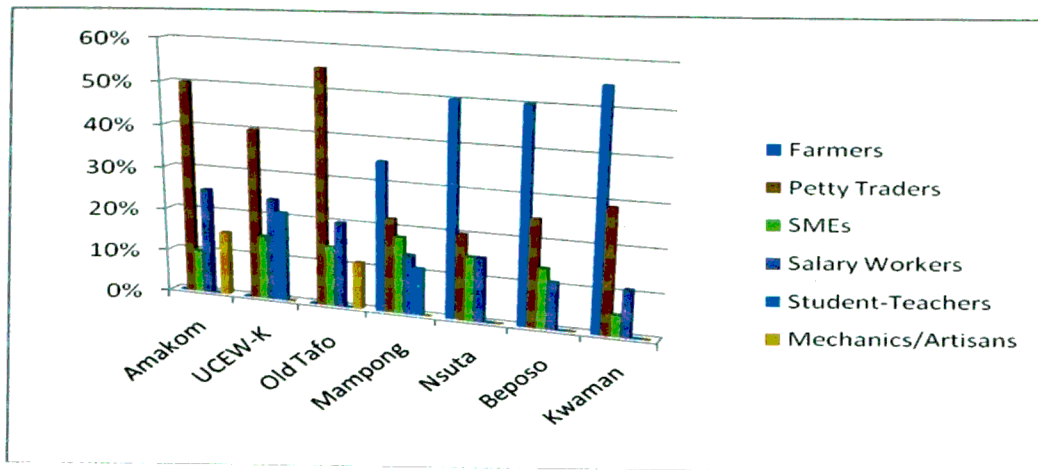


Fig 4.2 Customer Distribution and Concentration

These findings contravene Brama's study in relation to pricing for credit risk if indeed; the Bank is to obtain optimum returns from its credit risk exposure. According to Brama (1999) pricing for credit risk is efficient so long as risk concentrations are not excessive and the default risk of borrowers remains independent of the promised rate of interest. Also at the portfolio level, excessive risk concentrations for most lending institutions may arise as a result of dissimilar sized borrowers and disproportionate numbers of borrowers in different low-order definitions of regions and industries. This situation is believed to be part of factors contributing to the continuous deterioration in quality of the Bank's assets.

4.2.4 Credit Scoring and Credit Risk Measurement

The findings and analyses of credit scoring and credit risk assessment by the Bank were done on branch-to-branch basis. The researcher observed that even though the Bank was not practicing credit scoring on its applicants, some of the information collected from prospective borrowers via completion of loan application forms are part of information that are relevant for credit scoring. There was no model developed for the purposes of credit scoring. The respondents conceded that lack of expertise in credit scoring is hampering the generation of quality assets for the Bank. The

information collected from branch to branch include: monthly income, information on outstanding debt, type of business, home ownership, and information on previous loan default.

Mester (1997) indicated that the personal information used in Small Business Credit Scoring (SBCS) models may include the owner's monthly income, outstanding debt, financial assets, employment tenure, home ownership, and previous loan defaults or delinquencies. Therefore, conspicuously missing from Kwamanman Rural Bank's "probable" credit scoring model are vital information such as owner's employment tenure and financial assets. It is important to note that the Bank's knowledge of ownership of financial assets serves as an added security or collateral for the loan being administered. On the other hand, knowledge of employment tenure, especially for salary workers (formal sector workers) will improve the credit risk management position of the Bank. This is because borrowers in this category can then be advanced loans with terms of maturity equivalent to length of period to retirement or end of employment contract.

Mester (1997) added that personal information is obtained from one or more consumer credit bureaus and may be combined with data from commercial credit bureaus and basic business-specific data collected by the bank to enter into the prediction model. However, Ghana's situation is different as the recently launched Credit Reference Bureau is still at its infant stage. Consequently, collection of personal information and its verification for credit risk management is no doubt a daunting task for most financial institutions including Kwamanman Rural Bank and by extension, all rural banks in Ghana.

According to Obrecht (1989), Credit-scoring tools are necessary to assist the loan officer in making loan decisions, controlling and monitoring loan portfolio risk and isolating loans that need additional attention. The fundamental goal of a credit risk rating system is to estimate the risk of a given transaction. The Bank is therefore, missing a great deal on the benefits of using a credit scoring system.

4.2.5 Creditworthiness Appraisal and Credit Risk

By way of appraising borrowers for credit worthiness, the study discovered that the Bank has been verifying the following information: Project viability of borrowers, Bank references of borrowers, Credit history from the bank and other accessible sources, and Collateral intended to be used to secure the loan. The respondents were asked to rate on a scale of zero to four (0-4), the frequency of performance of these verifications and this unearthed interesting outcomes.

As shown in the figure 4.3 below, the respondents rated highest, the verification of project viability as the one being done “most frequently” across the seven branches of the Bank. This was followed consecutively by credit history analysis and collateral verification. Verification of bank reference and collaterals were rated as performed “sometimes” by the branches in Kumasi and Mampong. In a related discovery, customer background checks were not done at all in Kumasi and Mampong as shown in figure 4.3 below. Further finding was that customer back ground checks, verification of collateral and other bank references were only carried out “once in a while” at branches in the hinterland (Nsuta, Beposo and Kwaman) as indicated in the ratings. It follows that customer background check, also known as customer due diligence is not given the deserved attention especially, in the cities.

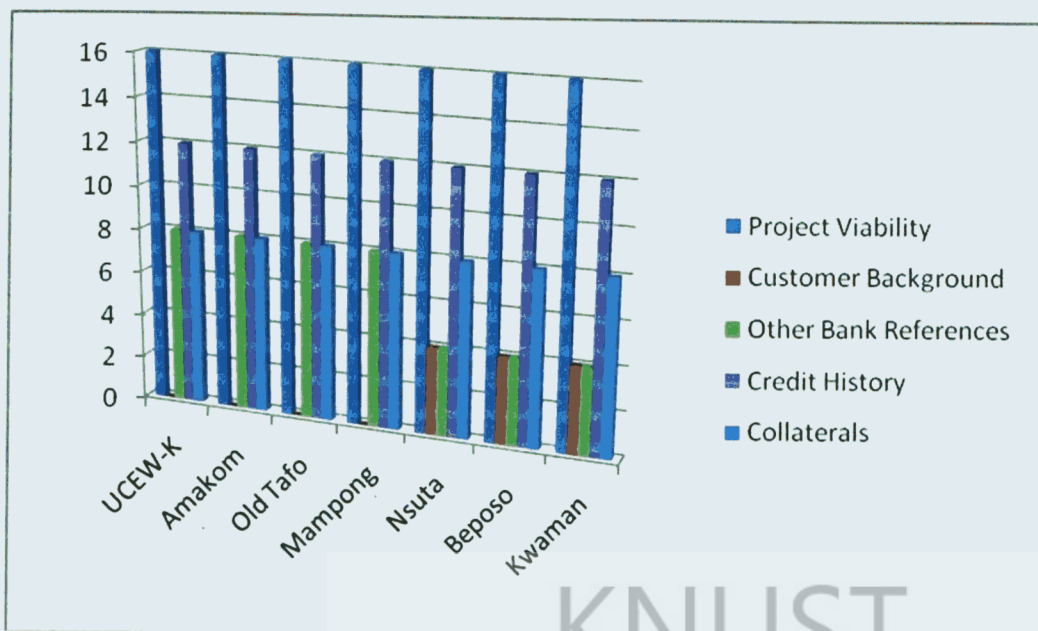


Fig 4.3 Frequency of performance of Credit Worthiness Verifications

Customer background check was perceived by the Bank as not necessary in credit administration. Verification of bank references and collaterals were done “once in a while” because there were virtually no other banks in those places. Most of the customers were also living within the vicinity of the Bank and therefore, it was easy to do due diligence on them and their collaterals “once in a while”.

Customer background investigation is very crucial in identifying risky borrowers. Scherzer (2003), in his article : “How to make due diligence pay off” observed that if not required to give a personal guarantee on the loan, most borrowers commonly would not offer much personal information, much less damaging information and therefore, the need to do customer background check.

Scherzer, emphasized that it was only by obtaining the information turned up by a background investigation that the lender could come to a fair judgement as to the specific risk involved in making a loan. He added that the information obtained

should not prevent the lender from doing the deal, but instead enabled it to fashion terms that will make the risk acceptable. It is obvious that Kwamanman Rural Bank is missing on returns that could accrue to it from customer background investigation with regards to credit risk management. This is also impacting negatively on quality of assets generated by the Bank as reflected in the huge provisions for bad debt that were made over the years under consideration of this research.

Another customer information that is not seriously verified for purposes of advancing quality credit is cross-checking other bank references provided by the borrowing customer. The reasons adduced for this were that those banks do not co-operate to forward information on their customers due to their rigid compliance with confidentiality policies. Lack of access to this information from other banks and the Credit Reference Bureau is likely to expose Kwamanman Rural Bank to avoidable risk of lending to a customer who had a bad credit history at the referenced banks. However, Aryeetey (1996) confirmed that group lending schemes have become very popular for agricultural lending to the extent that bankers consider references from other banks as irrelevant for lending. Therefore, bank references might not be very important if the loans were advanced specifically to farmer-groups.

4.2.6 Identification of Risky Borrowers through Due Diligence

The study revealed that due diligence for credit administration involves due diligence on the borrower itself, on borrower's project and on the borrower's collateral. On a scale of one to three (1-3), due diligence on project for which the borrower sought the loan was rated as "frequently performed" by the respondents at all branches of the Bank. Due diligence on collateral was rated as "sometimes performed" at branches in Kumasi and Mampong. Detailed analyses showed that due diligence on borrowers

was not being done in the cities (Kumasi and Mampong) whilst it is scored as “sometimes performed” at branches in the hinterland. However, due diligence on collateral is not performed at all in the hinterland. This is captured in Table 4.3 below.

From the foregoing, it was seen that holistic due diligence is not done at any of the branches. Even though it is commendable that due diligence on borrower’s project was performed frequently at all the branches of the Bank, this might not fully help in the identification of all risky borrowers. The other forms of due diligence are also very vital if the bank is to be on top of its credit risk management. This finding is not in agreement with Batra (2008), who observed that due diligence is pre-dominantly carried out by lenders under three different heads and stages including: Due diligence in respect of the borrower itself: Stage I, Due diligence in respect of the borrower’s Project: Stage II and Due diligence in respect of the securities: Stage III

Further, loans are not secured by considering financial and credit data only, as was the case of the Bank via its relatively high focus on due diligence on borrower’s project than other forms of due diligence. Like Scherzer (2003), stated, “You cannot secure any loan by weighing only financial and credit data on your borrower; you must also investigate the borrower personally” because most borrowers commonly would not offer much personal information and therefore the need to conduct customer (borrower) due diligence.

Geister (2008) also established that documentary methods today are not enough to cover the entire spectrum of risk, and therefore, one should also review non-documentary methods that are consistent with the institution’s policies.

Table 4.3 Frequency of Forms of Due Diligence Performed

Due Diligence/Frequency performance	Not Performed	Performed Sometimes	Performed Frequently	Total Scores
Due Diligence on Borrower	25	5	0	35
Due Diligence on Borrower's Project	2	10	18	74
Due Diligence on Collateral	12	13	5	53

Three-Point Scale: Not Performed = 1, Performed Sometimes = 2, Performed Frequently = 3

The researcher found that the Bank relied heavily on documentary methods of knowing its customers whilst neglecting any non-documentary methods of doing same. In this regard, lending is made without properly identifying the risk status of borrowers who do not have documentary information for verification. This was the case because of the high illiteracy levels of customers dealing with the Bank. The irony of this revelation is that whilst due diligence on borrowers is done (though not always) at branches in the hinterland where uneducated customers are most common, it is not performed in the cities where the branches of the Bank are most likely to have educated customers. The researcher found that in addition to illiteracy of the borrowers, due diligence on borrowers is not performed frequently at branches in the cities because the borrowers most of the time have offered collaterals which met the requirements of the Bank.

At the branches in the hinterland, collaterals were virtually not offered and therefore, the Bank saw the need to do some due diligence on borrowers. It was therefore, not surprising to find all respondents appreciating the performance of due diligence in respect of borrower's project as the most relevant to credit risk management of the

Bank than the other forms of due diligence i.e. due diligence on borrower's collateral and due diligence on the borrower itself. This however does not support the assertion of Scherzer (2003) that given human nature, collateral is sometimes only as good as the character of your borrower. Hence the integrity of the borrower also needs to be established in order to identify its risk category and its subsequent incorporation into the risk management strategy of the Bank.

4.2.7 Extent of Due Diligence on the Borrower, its Project and Collateral

The study has earlier established that due diligence on the customer is only done sometimes even though not at the branches in the city. The study further sought to know the extent of due diligence performed by the Bank on the borrower itself, its project and collateral offered as security for the loan. The respondents were closely similar in their response.

With respect to due diligence on the borrower itself, the study unearthed the following:

Information that were verified include government-issued identifications (passport, driving license, and voter's ID cards), bank references, annual reports and financial statements (in the case of companies), monthly income, outstanding debt information and home ownership. As noted earlier, these information are necessary for credit scoring by financial institutions. Even though the Bank does not verify information on employment tenure, company registration documents, court records for pendency of court action and ownership of financial assets, its due diligence on borrowers is commendable.

Nonetheless, the Bank's due diligence on borrowers is limited to few numbers of branches (branches in the hinterland) and more so, it is not done frequently. Therefore, the due diligence performed on borrower itself is not sufficient and efficient to add value to the bank through management of credit risk. This is because at this state, terms of the loan would not have been fashioned in a manner that will make the risk acceptable and manageable. Like Scherzer, (2003) puts it; information obtained from due diligence should not prevent the lender from doing the deal, but instead enabled it to fashion terms that will make the risk acceptable.

In respect of due diligence on project for which credit is advanced, the study gathered from the respondents that report on turnover and profits projected by the borrower were verified. It was learnt that the project officer was deeply involved in this verifications and this was followed by monitoring by the Bank (project officer) after the project is implemented by the borrower. This actually is consistent with Batra's Stage II due diligence on borrower's project that the applicant borrower's project report highlighting the details and projections of the proposed turnover, profit etc. for the next ten years are verified.

The bank however, does not verify management competency of borrowers which Raghavan (2005) thought is vital in assessing the borrower's project performance. The respondents further revealed that the bank, more often than not, did its own assessment of borrower's project because most of these borrowers (mostly illiterates) do not normally submit project reports for verification due to lack of capacity to prepare such reports.

Due diligence on collaterals offered were also not frequently verified. In the branches that collaterals were verified, their existence, location, ownership and value were the

aspects investigated by the Bank. A very important aspect of this due diligence i.e. salability verification, did not feature in the Bank's due diligence on borrower's collateral. This could have repercussions on the bank's ability to recover loans when things go wrong for the borrower, thereby resulting in accumulation of unsalable assets and consequently, bad debts. It was also found out that the type and nature of collateral were also not normally stipulated by the bank.

4.2.8 Branch-by-Branch Customer Default Categorization

Respondents rated on zero to four (0-4) scale the loan default per each customer category with 0 assigned to "no default or not a customer", 1 assigned to "very low default", 2 assigned to "fairly low default", 3 assigned to "fairly high default" and 4 assigned to "very high default". As shown in figure 4.4 below (also Appendix 3), petty traders were rated as very high defaulters in loan repayment at all branches except Nsuta, Beposo and Kwaman branches. Farmers were rated very high defaulters at Nsuta, Beposo and Kwaman branches. Salary workers (Formal sector workers) and student-teachers were the very low defaulters. The respondents conceded that some of the petty traders defaulted in loan repayments because the Bank did not monitor them after advancing the loans to ensure that the loans were used for the intended investments or projects. Farmers were also rated very high defaulters because of poor harvest and low prices for their products. This revelation points to the fact that lenders must incorporate information on the economic situation of borrowers for a good credit risk assessment.

Christl and Pribil (2004) argued that in addition to individual borrower data, many lending cases will require general information on the economic situation of a region or an industry to allow a comprehensive assessment of credit application and here, the

bank can make use of external sources. With this knowledge of loan default by customer categories at the various branches in mind, management of the bank can judiciously allocate resources towards managing its exposure to riskier customers which was not the case at the time of this study.

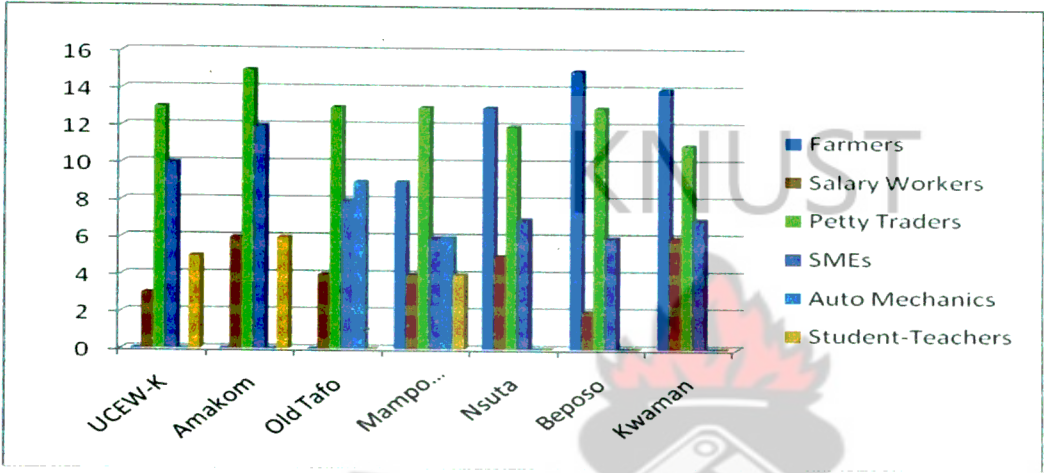


Fig 4.4 Default Ratings on Branch Basis

4.2.9 Credit Risk Measurement and Management Tools

The study discovered that the Bank did not measure credit risk and has no immediate plans of introducing any tool for the purposes of measuring credit risk in the very near future. The study found that the Bank’s credit risk management was based on discretionary measurement of perceived risk rather than the use of risk management models. This does not allow for efficient pricing of credit risk which reflects appropriate returns for taking such risks. Risk can only be properly managed if it is identified and measured. Unmeasured risk is most likely to be understated. Understatement of risk by the bank might have caused deterioration of assets of the bank in the recent past.

Baxley and James (2005) believe that with the concentration by both regulators and bankers on risk management, the time has come for banks to price their loans based upon some measure of risk related to loan price or reward to the bank. Koch (1995) is of the opinion that banks have generally underpriced loans because they have understated risk, and therefore, they should identify both expected and unexpected losses, incorporating both in the risk charge for a loan. The Bank should brace up itself to invest in credit risk measurement and management for the purposes of risk-based pricing of loans.

The respondents confess that the bank used collaterals, guarantors, group guarantees for group lending and credit limits as its credit risk mitigating tools. Credit limits are sanctioned for each branch manager. In group lending, the group is liable for default of any member. The group therefore ensures that members oblige to repayment terms of the bank. The supervising manager also has a credit limit sanctioned by the board of directors. Additionally, any loan amount beyond the limit of the board goes to the Bank of Ghana (the regulators) for ratification. The other tools of credit risk management such as insurance, selling of loans to third parties, credit derivatives, etc are not being used by the bank. The research noted that the use of a limited number of credit risk management tools is impinging on the bank's capacity to generate more quality assets/loans to increase profitability.

4.2.10 Factors Responsible for Loan Defaults in the Bank

The researcher identified the factors that were responsible for loan defaults in the Bank. These include; Insider/Fraudulent Lending, Inefficient Due Diligence, Macroeconomic Situation of the Nation, Lending to High Risk Borrowers and Unqualified and Inefficient Staff. As illustrated in table 4.4 below, when these factors

were rated by the respondents in the various branches, “lending to high risk borrowers” was scored highest in the branches as very highly influential, whilst at branches in the hinterland, “macroeconomic situation” was rated the most influential factor responsible for loan defaults. In the city branches, “Macroeconomic situation” was rated the second most influential factor. This shows that the economic situation of the borrower and its region/location of business or residence need to be taken into consideration during lending in assessing the bank’s exposure to default risk. Christl and Pribil (2004) also confirmed that a bank must always be interested in having comprehensive and current data on the economic and personal situation of the borrower. However, the mean scores show that lending to high risk borrowers was still the most influential factor.

On average, “inefficient due diligence” was rated third most influential factor at all the branches. “Insider/fraudulent lending” was also found to be fairly influential in loan defaults. This is consistent with Brownbridge(1998), and Waweru and Kalani (2009), that non-performing loans are mainly caused by insider lending. The least rated factor by all branches was “unqualified and inefficient staff”. The respondents also assigned percentage proportion of defaults to these factors and the analysis shows that high default is due to lending to high risk borrowers. This was followed by macroeconomic situation, inefficient due diligence, insider lending, and the least being unqualified and inefficient staff, in that order.

Table 4.4 Rating of Factors Responsible Defaults

Factors	Strongly Agree	Disagree	Neutral	Agree	Strongly Agree	Total Scores	Percent Default
Insider/Fraudulent Lending	5	2	0	13	10	101	15
Inefficient Due Diligence	2	2	3	10	13	120	20
Macroeconomic Situation	1	1	1	17	10	124	15
Lending to High Risk Borrowers	1	1	1	11	16	130	40
Unqualified & Inefficient Staff	10	5	2	10	3	81	10

Five Point Scale: Strongly Disagree = 1, Disagree =2, Neutral = 3, Agree = 4, and Strongly Agree = 5

4.2.11 Fraud Risk Prevention and Customer Due Diligence

The study identified the kinds of frauds experienced by the Bank as lending of fraudulent loans, and insider lending. It came to light that the fraudulent loans were mainly generated by the Bank officials in the recent past to customers who were not known to the Bank, jeopardizing loan recovery. Some of the reasons offered by respondents for lending fraudulent loans include: pressure from management to increase profitability (therefore, no thorough due diligence was done before the loans were advanced) and personal benefits derived from the deal as a result of bending the rules in favour of the borrowers. In all these instances the loan applications were filled with false information.

Another reason offered was that the internal control systems were weak and customer accounts were not monitored frequently. Insider lending was also one of the major financial frauds committed on the Bank, where Bank officials virtually gave loans to

themselves through the connivance of some customers. Sometimes this was done through the creation of ghost accounts and granting of loans to unqualified customers. The outcome of this situation has been huge non-performing loans as the loan could not be recovered. The researcher agreed with Brownbridge (1998), and Warewu and Kalani (2009) again that insider lending has resulted in huge non-performing loans. Once again customer due diligence, strong internal controls, and regular monitoring of accounts would have prevented these frauds.

The respondents indicated that the effects of lending fraudulent loans have been enormous. At an instance in the recent past the Bank lost reputation leading to withdrawal by depositors and consequently, reduced profitability and even sometimes losses. This is also congruent to Ribadu (2004) that those financial frauds have led to the collapse of many banks in Nigeria and frauds have equally led to the loss of confidence in the banks not only local but also the international business community.

Regarding prevention of frauds in the Bank, 50% of the respondents chose adherence to internal control procedures as the most effective tool for fighting fraud. Twenty percent (20%) also agreed that Monitoring of employees would help in the fight against fraud. Again, 20% confess that compliance with KYC will be the solution whilst another 10% thought ensuring compliance with code of conduct is a better fight against fraud. The last 10% chose monitoring of accounts as best way ever for fraud risks prevention (these are depicted in figure 4.5 below). BITS Financial services Roundtable (2003) recommended that the financial institution must have adequate ongoing monitoring systems in place to identify suspicious transactions, such as structuring, transactions inconsistent with the nature of a customer's stated business purpose, and unusual wire activities.

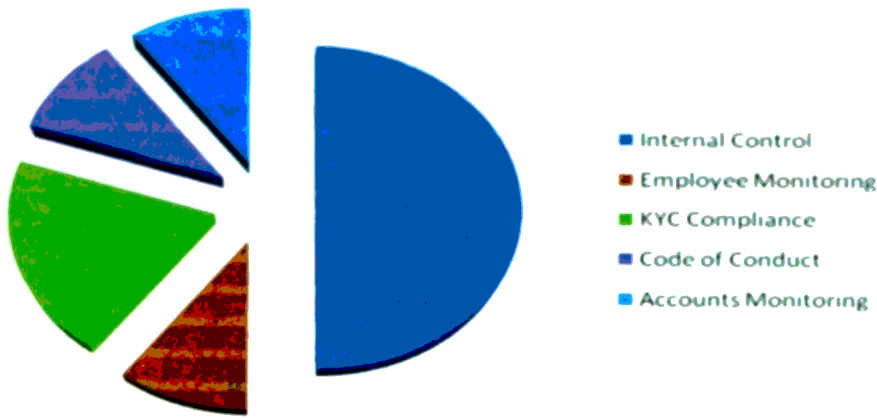


Fig 4.5 Fraud Prevention Tools

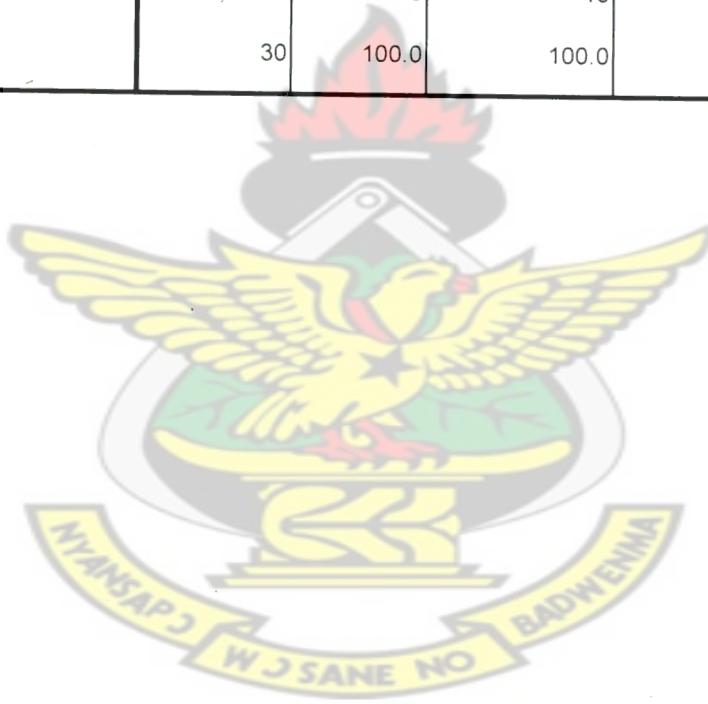
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It is important to note that the Bank was not a full KYC compliant at the time of this research. As shown in table 4.5 below, most (80%) of the respondents indicated that this state of affairs was due to difficulty in obtaining personal information from the customers as a result of high illiteracy level of customers of the Bank. Another problem highlighted by 10% of the respondents was lack of expertise in gathering such information. The last 10% could not provide any reasons. The Bank indeed, did not appreciate customer due diligence (also known as KYC) as means of preventing fraud. According to Basel (2001) sound KYC procedures must be seen as a critical element in the effective management of banking risks. The Basel Committee added that KYC safeguards go beyond simple account opening and record-keeping and require banks to formulate a customer acceptance policy and a tiered customer identification programme that involves more extensive due diligence for higher risk accounts, and includes proactive account monitoring for suspicious activities.

The respondents unanimously recommended training in due diligence, credit risk management and a vigorous effort at becoming fully compliant with KYC as the way forward in reducing bad debts and preventing financial fraud risk.

Table 4.5 Difficulties in Complying with KYC

	Frequency	Percent	Valid Percent	Cumulative Percent
Difficulty of obtaining information	24	80	80	80
Lack of expertise In gathering information	3	10	10	90
No Reasons	3	10	10	100.0
Total	30	100.0	100.0	



CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 INTRODUCTION

This chapter summarizes the findings of the research and draws relevant conclusions. It also covers the suggestions and recommendations made based on the findings. The chapter is accordingly captioned into the various headings for purposes of clarity. The opinions expressed in this chapter were also informed by the various literature covered.

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5.1 SUMMARY OF MAIN FINDINGS

The research was set out to answer the research questions of why non-performing loans keep soaring on the books of the Bank and whether due diligence plays any role in preventing financial fraud risks and thereby reducing such non-performing loans. The main findings are as follows:

5.1.1 Credit Scoring and Credit Risk Assessment

The research found that the Bank does not measure credit risk, neither does it score credit. Even though some documentary information was obtained from applicants, they were not used for the purposes of credit scoring and credit risk assessment. The credit scoring information generated by the Bank include monthly income, information on outstanding debt, type of business, home ownership, and information on previous loan default. This brought to the fore, the credit risk management issues of the Bank. There was no doubt therefore, that the asset quality of the Bank deteriorated over the years. The credit risks of its borrowers were not properly

assessed for the purpose of credit risk management. Credit risk management tools used by the bank were collaterals, credit limits, use of guarantors and group guarantees for group lending. The Bank did not adopt risk-adjusted pricing in pricing its loans.

5.1.2 Credit Risk Concentration

The study identified the customers of the Bank to include; farmers, salaried workers, petty traders, auto mechanics and student-teachers. The customer distribution analysis revealed that farmers were concentrated at branches in the hinterland, whereas petty traders were concentrated at branches in the cities. This gave a good picture of credit risk concentrations of the Bank. It also came to light that petty traders were the most defaulters at all the branches apart from Nsuta and Beposo branches where the farmers were the most defaulters. This knowledge promotes value-for-money credit risk management by allocating resources to manage the category of customers with high risks. This also assists in pricing credit risk, in that pricing for credit risk is efficient so long as risk concentrations are not excessive and the default risk of borrowers remains independent of the promised rate of interest.

5.1.3 Credit Appraisal Process and Due Diligence

The credit approval process of the Bank was found to involve verification of Project viability of borrowers, Bank references of borrowers, Credit history from the bank and other accessible sources, and Collateral intended to be used to secure the loan. It came to light that due diligence was most frequently carried out in respect of project viability, followed by credit history analysis and bank reference verifications. The infrequent verifications were done on customer background and collaterals at

branches in the hinterland. Due diligence was done on collaterals offered by borrowers more frequently in the cities than in the hinterland. The study established that customer background check was not given the needed attention at branches in the cities and this might continue to have repercussions on customer identification programmes of the Bank in its bid to becoming KYC compliant. The researcher also thought that lack of efficient customer due diligence (customer background check) would impinge on the Bank's fight against financial fraud risk.

The Bank also relied heavily on documentary methods of knowing its customers. Lending was therefore, done without properly identifying the risk status of customers who do not have documentary information for verification.

5.1.4 Factors Influencing Loan Defaults

Factors responsible for loan defaults were identified as follows:

- Insider/fraudulent lending
- Insufficient due diligence
- Macroeconomic situation of the nation
- Lending to high risk borrowers and
- Unqualified and inefficient staff.

When these factors were ranked, it came to light that lending to high risk borrowers was the most influential factor responsible for loan defaults. Prevailing Macroeconomic situation was rated second, whilst inefficient due diligence was ranked third. Insider lending followed inefficient due diligence in the rating whilst unqualified and inefficient staff was the least in the ranking. It was noted that these

factors are related in various ways. For instance, insider lending/fraudulent lending also results from inefficient due diligence done by unqualified and inefficient staff. Additionally, lending to risky borrowers results from inefficient due diligence in identifying risk categories of borrowers.

It is obvious that due diligence plays a major role in indentifying risky borrowers for managing credit risk and preventing fraud risk. These definitely lead to improvement in the non-performing loans position of the Bank.

5.1.5 Fraud Risk Prevention through Due Diligence

From the study, the Bank was found to be exposed to mainly the risk of insider lending and fraudulent lending. It was learnt that the bank officials were not doing efficient due diligence and this has led to lending to unknown or faceless customers. Some also lent to risky customers and obtained personal benefits from such customers thereby compromising on credit risk management. Drive for profitability was offered as one of the reasons for rushing loans through the approval process. It was learnt from the study that financial fraud, especially fraudulent lending/Insider lending have resulted in heavy losses to the Bank. The Bank also lost reputation in the recent past through frauds committed on it by its customers with the connivance of the Bank's officials. Huge withdrawals were made by depositors during those periods.

Compliance to KYC (Customer Due Diligence), strengthening internal control systems, regular monitoring of customer accounts and employee monitoring were recognized as tools necessary for mitigating fraud risk. The Bank is yet to be KYC compliant due to the difficulty in assessing personal information; both documentary and non-documentary from the customers. As the analysis of the educational

background shows, most of the staff were not of high calibre and this is likely to have a negative impact on their credit risk management tasks.

5.2 CONCLUSION

The study ascertained that the Bank was not up to scratch in its credit risk management endeavour. This was due to the fact that due diligence in its various forms was not done judiciously and holistically. Therefore, borrowers' risks were not identified properly for credit risk management purposes. This state of affairs was exacerbated by non-adoption of credit scoring systems which would have assisted in measuring the risk of borrowers. The Bank also relied on documentary methods of identifying its customers (wherever it was done, though not frequently) more than non-documentary methods which did not allow for identification of risk of borrowers who do not have documentary information.

The study also discovered that credit risk concentration was likely to affect the bank due to concentration of borrower categories in the various branches of the Bank. Lending to high risk borrowers was found to be the most influential factor affecting loan defaults. The next factor was macroeconomic situation of the nation, followed by inefficient due diligence.

Financial fraud risks namely; fraudulent lending and insider lending were identified and the study observed that complying with KYC, strengthening of internal control systems, monitoring of employees and customer accounts, and complying with code of conduct; could help fight these frauds. The Bank has not attained the KYC compliant status at the time of this research due to difficulty in obtaining information from the customers, majority of which were illiterates. The difficulty also has to do with lack of expertise in gathering information from customers.

If the Bank is to succeed in the implementation of credit and fraud risk programmes, due diligence must be taken very seriously. Due diligence has led to identification of risky borrowers. This further helps to control non-performing loans on the books of banks and hence pre-empting bank crises.

5.3 RECOMMENDATIONS

From the findings and conclusions drawn, the following suggestions and recommendations aimed at improving the non-performing loan position of the Bank through credit risk management and prevention of financial fraud with great emphasis on due diligence, were made:

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- There is the need for the Bank to take a close look at credit risk measurement and credit scoring in order to adopt risk-adjusted pricing in its loan pricing. This is because credit-scoring tools are necessary to assist the loan officer in making loan decisions, controlling and monitoring loan portfolio risk and isolating loans that need additional attention.
- As a matter of urgency, the Bank must adopt a holistic approach to due diligence involving; due diligence on the borrower itself, due diligence on borrower's project and due diligence on collaterals offered by the borrower. This is because the approach helps in identifying the risk that is acceptable to the Bank and how to manage such risks. The identification of the risk turned up by due diligence should not prevent the lender from doing the deal, but instead enabled it to fashion terms that will make the risk acceptable.
- The Bank requires training of staff in credit risk management with specialty in due diligence, due to the kinds of customers that deal with the bank. Most of the

customers are illiterates and soliciting non-documentary information from them requires expert's approach.

- It is also recommended that the Bank should put in the necessary measures such as quality information gathering (through due diligence) and upgrading of its Information Technology Systems in order to fully accommodate KYC programmes.
- There is the need for government or regulators to introduce and enforce statutes that deal with several issues such as insider lending and lending without adequate collateral to help reduce non-performing loans of rural banks. This should be an important case if the nation wants to achieve the millennium development goals of eradicating poverty and empowering women.
- One credit risk management tool recommended for the consideration of the Bank is credit risk insurance, whereby the loans are insured against default.
- Credit risk concentrations of the bank are associated with farmers and petty traders. The Bank can therefore, minimize this risk through diversification of its lending so that when things go wrong in one sector, the other sectors can sustain the Bank.
- One of the factors discovered as very influential in causing loan defaults is inclement microeconomic situation. It is worth emphasizing that government must put tight controls on fiscal and monetary policies that will provide the benefits of low or stable interest and foreign exchange rates so as to improve loan performance of rural banks.

- It is advised that aside considering prevailing national macroeconomic situation, the Bank should assess the economic conditions in the specific regions or locations of its borrowers before advancing loans. This would enhance Credit risk management in the Bank.

In conclusion, the study has discovered things that are being done rightly and those that are done wrongly as far as due diligence is concerned. At the root of every credit risk management policy is due diligence which has been taken for granted for far too long. The time has come for the Bank to turn its attention to managing credit risk with emphasis on due diligence, so as to free up a significant amount of capital held for credit risk cover and also be determined that it obtains adequate returns for taking such risks.



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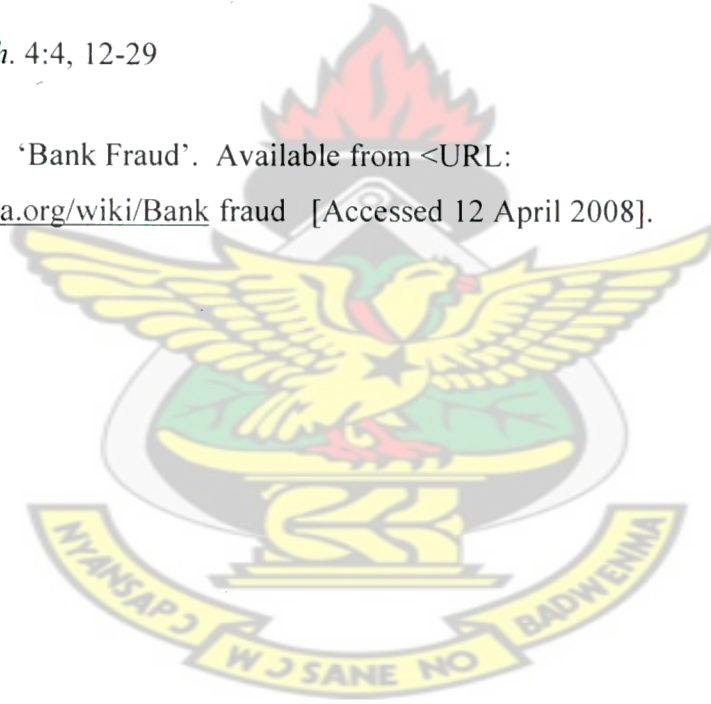
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APPENDIX 1: QUESTIONNAIRE FOR CREDIT OFFICERS, SUPERVISING MANAGER AND BRANCH MANAGERS

This questionnaire is designed to solicit information to complete an academic survey as par of MBA course requirements of KNUST School of Business. Please, you are assured of confidentiality of the responses provided. Please tick/fill in the appropriate box and write where necessary.

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1. Job title:

.....
2. What is your educational background?

MSLC GCE/SSCE/WASSCE Tertiary Others (specify)
3. Name of Department:
4. What role do you play in the granting of loans?
 - a. Assessment of customers for creditworthiness
 - b. Monitoring of customer's project
 - c. Computation of loan figures
 - d. Others (specify)
5. What categories of customers obtain credit from your bank?
 - a. Farmers
 - b. Salary Workers (Formal sector workers)
 - c. Petty Traders
 - d. Small and Medium Scale Enterprise owners
 - e. Others (Specify)
6. Which of the categories above obtain the most credit? Assign relative percentages. Please leave blank if a category is not applicable.
 - a. Farmers
 - b. Salary Workers

- c. Petty Traders
- d. Small to Medium Scale Enterprise owners
- e. Others specified in 6 (e) above

7. Do you have dedicated credit risk management department and functions in this bank? If there are; mention them.....

8. Do you do credit scoring on loan applicants? Yes No

9. What personal information do you obtain from loan applicants for credit scoring?
 Please leave blank if a factor is not applicable.

- a. Monthly income
- b. Outstanding debt
- c. Financial assets
- d. Employment tenure
- e. Home ownership
- f. Previous loan default
- g. Others (specify).....

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10. Apart from credit scoring, how do you assess loan applicants for credit worthiness? Rank the activities using 4 as “frequently”, 3 as “fairly often”, 2 as “sometimes”, 1 as “once a while” as and 0 as “not at all”. Please leave blank if an activity is not applicable.

- a. Verifying project viability of applicants (financial documents)
- b. Background check on applicant
- c. Verifying from other bank references
- d. Credit history Analysis
- e. Verification of collaterals/securities
- f. Others (Specify)

11. Which of the following forms part of due diligence in the bank. Rank their frequency of performance using 1 as “not performed”, 2 as “Sometimes”, and 3 as “frequently”.

- a. Due diligence in respect of the borrower
- b. Due diligence in respect of borrower’s project

- c. Due diligence in respect of securities/collaterals
- d. Others (specify)

12. Why are others ranked as least/not performed in question 11 above?

13. Which of the following elements of due diligence do you consider most relevant for credit risk management? (Rank them in the order of importance, 0 as “not relevant”, 1 as “fairly relevant”, 2 as “relevant” and 3 as “very relevant”). Please leave blank if not applicable.

- a. Verifying data on customer background
- b. Verifying data on collateral or security
- c. Verifying data on project for which funding is required (financial data)
- d. Others (specify)

14. What information do you verify on customer background? Please leave blank if not relevant.

- a. Government-issued identifications
- b. Employment tenure
- c. Court records for criminal conviction/pending court action
- d. Bank reference
- e. Home ownership
- f. Monthly income
- g. Financial statements
- h. Annual Reports (if company)
- i. Outstanding debt
- j. Company registration documents
- k. Verifying compliance to tax payments
- l. Others (specify).....

15. How do verify collaterals offered by loan applicants? Please leave blank if not relevant.

- a. Verifying existence and location of the collateral
- b. Verification of ownership of the collateral
- c. Verifying the present and future value and of the collateral

- d. Verifying the salability of the collateral
- e. Others (specify).....

16. How do you carry out due diligence on the project being funded? Please leave blank if not applicable.

- a. Verifying competence of customer/management and staff
- b. Verifying output/sales data
- c. Others (specify)

17. What are the benefits to the bank of doing due diligence?

- a. For credit risk identification and control
- b. For fulfillment of regulatory compliance
- c. For fraud detection and prevention
- d. For protection and value addition
- e. Others (specify)

18. Which information is/are very difficult to obtain from loan applicants and why?

.....

19. Which of the following categories are the highest defaulters on loan repayment, rank them by assigning 0 to "no default or not a customer", 1 to "very low default", 2 to "fairly low default, 3 to "fairly high default" and 4 to "very high default"

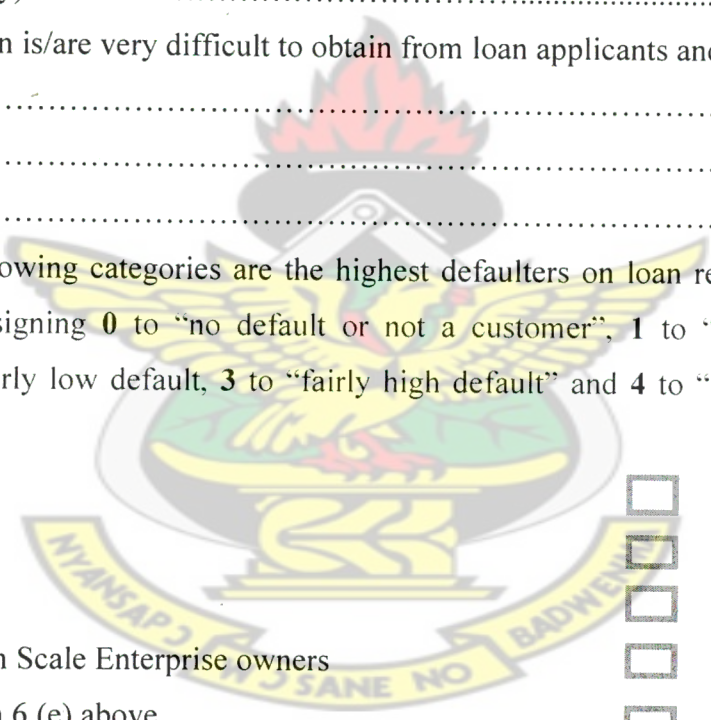
- a. Farmers
- b. Salary Workers
- c. Petty Traders
- d. Small and Medium Scale Enterprise owners
- e. Others specified in 6 (e) above

20. Do you measure the risk of loan loss per applicant or portfolio risk?

- a. stand-alone risk/risk per applicant
- b. Portfolio risk
- c. None of the above

21. If you measure risk of loan loss, how do you do this?

- a. Through the use of mathematical models



- b. Through the use of credit scoring models
- c. Use of own discretion
- d. Use of credit history data
- e. Others (Specify)

22. How do you mitigate the risk of loan loss?

- a. Using collaterals/securities
- b. Insuring the loans
- c. Use of guarantors
- d. Selling of the loans to a third party
- e. Use of credit derivatives
- f. Use of credit limits
- g. Ensuring quality customer data gathering
- h. Others (Specify)

23. What is the major cause of loan defaults in the bank? Rate them as 1= Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree. Please also assign percentage of default caused by factors rated.

	<u>Percent</u>	<u>Rates</u>
a. Insider/fraudulent lending		<input type="checkbox"/>
b. Inefficient due diligence		<input type="checkbox"/>
c. Macroeconomic situation of the nation		<input type="checkbox"/>
d. Lending to high risk borrowers		<input type="checkbox"/>
e. Unqualified and inefficient staff		<input type="checkbox"/>
f. Others (Specify)		<input type="checkbox"/>

24. What types of fraud are experienced by the bank?

- a. Fraudulent loans
- b. Cheque fraud
- c. Money laundering
- d. Identity theft
- e. Others (Specify).....

25. What is the effect of these frauds on the bank if any?

.....

.....

.....

26. How do you hope to fight or prevent these frauds?

- a. Customer background check (due diligence)
- b. Proper internal control procedures
- c. Monitoring of accounts
- d. Employee monitoring
- e. Compliance with KYC
- f. Ensuring compliance with code of conduct
- g. Others (Specify)

27. Is the bank Know-Your-Customer (KYC) compliant? If no why; and if yes, how was it achieved?

.....
.....

28. Do you factor risk of loan loss into the pricing of loans? If no why?

- a. Yes
- b. No

.....
.....
.....

29. Do you regularly review data on customers after the first time? If yes how regular? (daily, weekly, monthly, quarterly etc.)

.....

30. What do you recommend as the way forward in carrying out enhanced due diligence that reduces credit risk and prevent financial frauds?

.....
.....
.....
.....

APPENDIX 2: INTERVIEW QUESTIONS FOR SUPERVISING MANAGER

1. What is the Position of interviewee?
2. What is your educational background?
3. What categories of customers do you grant credit?
4. What is your credit policy?
5. Do you practice credit risk management?
6. What entails your credit risk management?
7. What tools do you use in credit risk management?
8. How do you conduct due diligence on credit applicants?
9. What information do you look out for when performing due diligence?
10. Do you get all information you require from applicants? Explain.
11. What has been the effect of lack of such information on your credit risk management?
12. What types of financial frauds do you experience in the bank?
13. What factors predispose the bank to financial fraud?
14. What are the measures put in place to prevent financial fraud?
15. Has due diligence been relevant in credit risk management and financial fraud prevention? Why?
16. What is the attitude of loan applicants towards due diligence performance?
17. What is the major cause of loan loss in your bank?
18. How do you measure the risk of loan loss in the bank?

19. How do you secure your loans against the risk of loan loss?
20. What goes into the pricing of loans in the bank?
21. What are your difficulties in achieving the KYC complaint status?
22. What do recommend as the way forward in ensuring good due diligence?

APPENDIX 3: Branch-by-Branch Default Rating Analysis

Customers, UCEW-K	No Default/Not Customers (0)	Very Low Defaults (1)	Fairly Low Defaults (2)	Fairly High Default (3)	Very High Default (4)	Total Scores
Farmers	4	0	0	0	0	0
Salary Workers	0	3	1	0	0	5
Petty Traders	0	1	0	0	3	13
SMEs	0	2	0	0	2	10
Auto Mechanics	4	0	0	0	0	0
Student-Teachers	0	3	1	0	0	5
Customers, Amakom						
Farmers	4	0	0	0	0	0
Salary Workers	0	2	2	0	0	6
Petty Traders	0	0	0	1	3	15
SMEs	0	0	1	2	1	12
Auto Mechanics	0	2	2	0	0	6
Student-Teachers	4	0	0	0	0	0
Customers, Old Tafo						
Farmers	4	0	0	0	0	0
Salary Workers	1	2	1	0	0	4
Petty Traders	0	0	1	1	2	13
SMEs	0	1	2	1	0	8
Auto Mechanics	0	1	1	2	0	9

Student-Teacher	4	0	1	0	0	0	
Customers, Mampong							
Farmers	0	1	1	2	0	9	
Salary Workers	1	2	1	0	0	4	
Petty Traders	0	0	1	1	2	13	
SMEs	0	2	2	0	0	6	
Auto Mechanics	0	2	2	0	0	6	
Student-Teachers	1	2	1	0	0	4	
Customers, Nsuta							
Farmers	0	0	1	1	2	13	
Salary Workers	1	1	2	0	0	5	
Petty Traders	0	0	1	2	1	12	
SMEs	1	1	1	0	1	7	
Auto Mechanics	4	0	0	0	0	0	
Student-Teachers	4	0	0	0	0	0	
Customers, Beposo							
Farmers	0	0	0	1	3	15	
Salary Workers	0	3	1	0	0	2	
Petty Traders	0	0	1	1	2	13	
SMEs	0	2	2	0	0	6	
Auto Mechanics	4	0	0	0	0	0	
Student-Teachers	4	0	0	0	0	0	
Customers, Kwaman							
Farmers	0	0	1	0	3	14	
Salary Workers	0	2	2	0	0	6	
Petty	0	0	1	3	0	11	

Traders							
SMEs	0	2	1	1	0	7	
Auto Mechanics	4	0	0	0	0	0	
Student-Teachers	4	0	0	0	0	0	

**APPENDIX 4: Analysis of Total Scores obtained from Rating of Loan Defaults
by Branches**

Customers, All Branches	UCEW-K	Amakom	Old Tafo	Mampong	Nsuta	Beposo	Kwaman
Farmers	0	0	0	9	13	15	14
Salary Workers	3	6	4	4	5	2	6
Petty Traders	13	15	13	13	12	13	11
SMEs	10	12	8	6	7	6	7
Auto Mechanics	0	0	9	6	0	0	0
Student-Teachers	5	6	0	4	0	0	0



	Amakom	UCEW-K	Old Tafo	Mampong	Nsuta	Beposo	Kwaman
Farmers	0%	0%	0%	35%	50%	50%	55%
Petty Traders	50%	40%	55%	22%	20%	25%	29%
SMEs	10%	15%	14%	18%	15%	14%	5%
Salary Workers	25%	24%	20%	14%	15%	11%	11%
Student-Teachers	0%	21%	0%	11%	0%	0%	0%
Mechanics/Artisans	15%	0%	11%	0%	0%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%

APPENDIX 5: Customer Distribution and Concentration per Branch



APPENDIX 6: Provisions for Bad Debt – 2001 to 2008

Year	Provision for Bad Debts (GH¢000)	Total Loans (GH¢000)	Percentage (%)
2001	108.24	521.131	20.8
2002	125.135	554.57	22.6
2003	225.142	693.431	32.5
2004	263.448	743.873	35.4
2005	238.121	704.771	33.8
2006	264.214	794.642	33.3
2007	258.522	759.452	34
2008	249.11	685.881	36.3

