# ASHESI UNIVERSITY COLLEGE

# AN ASSESSMENT ON THE EFFECTIVENESS OF CREDIT RISK MANAGEMENT TOOLS UTILIZED BY FINANCIAL INSTITUTIONS IN GHANA

Ву

ABIGAIL NANA YAA BADU

2012

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Thesis submitted to the Department of Business Administration, Ashesi
University College.

In partial fulfillment of the requirements for the award of Bachelor of Science degree in Business Administration

**MAY 2012** 

**Declaration Page** 

I hereby declare that this thesis is the result of my own original work and

that no part of it has been presented for another degree in this university or

elsewhere.

Candidate's Name: Abigail Nana Yaa Badu

Candidate's Signature: .....

Date: 12/04/2012

I hereby declare that the preparation and presentation of the thesis were

supervised in accordance with the guidelines on supervision of thesis laid

down by Ashesi University College.

Supervisor's Name: Mr. Ebenezer Ato Simpson

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Date: .....

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# **Abbreviations**

CRM – Credit Risk Management

SMEs – Small and Medium Enterprises

BoG - Bank of Ghana

NPL - Non-performing Loans

UT Bank - Unique Trust Bank

SPSS – Statistical Package for the Social Sciences

ADB – Agricultural Development Bank

#### **Abstract**

Credit risk management is a very essential model for any financial institution, since most of the financial decisions revolve around the corporate cost of holding risk. This management practice is particularly important to banks since credit risk constitutes their core business processes. The banking industry in Ghana though is thriving profitably; the industry suffers the problem of credit risk.

Results of the study revealed that credit risk management is a very effective and efficient management tool that helps to reduce credit default rate, non-performing loans, and increase in cash flows as well as portfolio growth amongst financial institutions. However, this paper concludes that methods and procedures used by financial institutions to manage credit risk are credit assessment, purpose of the credit, track records of applicant, monitoring of credit, controlling of credit, evaluating collateral provided by the customer, and proposing of terms and conditions in relation to the loan requested.

Further, the study also revealed that both external and internal factors of environment affected the operations of credit risk management. These factors are: interest rates, currency exchange rates, efficient management of government fiscal policies and political stability of the country.

**Keywords**: Bank, industry, risk management, financial institutions, bad debt, credit risk, Non-performing loans

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### **Chapter One**

#### 1.1 Introduction

Credit Risk Management has become the most important issue among financial institutions in Ghana (Ghana Business & Finance, 2012). More so, one of the objectives of financial institutions is to maximize profits. Credit Risk Management is defined as the process of eradicating, reducing, and managing risks to circumvent certain mishaps like financial losses in firms (Kalapodas and Thomson, 2005). Banks use credit risk management procedures to protect against the possibility of a borrower defaulting on a loan (Scott S, 2012).

This research paper sought to assess the effectiveness of Credit Risk Management tools utilized by financial institutions. This chapter entails the background of the study, discusses the problem statement, the objectives of the study, the research questions, the scope of the study, limitations of the study and the significance of the study.

# 1.2 Background Information

The research study concentrated on the growth of credit risk management, the practices of credit risk management tools, and the benefits of credit risk management. Generally, firms in the banking industry compete for high market share, market value and profitability performance thus higher profits and sustainable growth in order to gain competitive edge over their competitors. However credit risk deters them from achieving their expected goals. Kalapodas and Thomson (2005) defines Credit Risk

Management as an attempt to eradicate, reduce, and manage risks to circumvent certain mishaps like financial losses in firms. The highest and crucial problem faced by financial institutions in Ghana is credit risk. This is as a result of defaulters not repaying credits. The failure to manage bad debts leads to insolvency and losses among financial institutions.

Some possible problems that results to credit risk are; laid-back credit standards for borrowers, loan applicants, poor risk management, absence of attention to changes in economic and other situations that can lead to the worsening of the credit standing of a bank's counterparties (Basel Committee on Banking Supervision, 1999). Again, this paper seeks to assess the effectiveness of credit risk management among financial institutions in Ghana and find the problems financial institutions face in order to recover debts and the measures put in place to prevent these institutions from encountering bad debts. Going forward, the relevance of the research paper was to assess the impact of credit risk management amongst financial institutions and transform Risk Management activities to reduce losses in the banking industry.

#### 1.2.1 Credit Risk

As mentioned earlier, Credit Risk is a type of risk that causes insolvency and bankruptcy to financial institutions; affects financial performances of institutions. Correspondingly, credit risk is defined as the risk of loss due to a party in an agreement not meeting its contractual financial obligation in a timely manner (Gestel et al, 2009). This denotes that

defaulters fail to make payments on agreed terms. Amongst the types of risks suffered by financial institutions, credit risk is the most familiar. There has been always scope for borrowers to default from commitments for one or two reasons resulting in illustration of credit risk to the banks. These losses could take the form of outright default or alternatively, losses from changes in portfolio value arising from actual or perceived deterioration in credit quality that is short of default. Credit risk is inherent to the business of lending funds to the operations linked closely to market risk variables" (Raghavan, 2003).

Credit risk occurs when a defaulter or bank borrower fails to meet obligations in accordance to the terms agreed upon. Another cause of credit risk is the existence of fake collateral of borrowers and inappropriate documentation. Furthermore, credit risk can be seen in the various activities of a bank, which includes transactions performed both in the banking book, trading book, and both on and off the balance sheet.

Moreover, banks are increasingly facing credit risk (or counterparty risk) in various financial instruments other than loans, including acceptances, interbank transactions, trade financing, foreign exchange transactions, financial futures, swaps, bonds, equities, options, and in the extension of commitments and guarantees, and the settlement of transactions (Basel Committee on Banking Supervision 1999). Since banks hold little owners' capital relative to the aggregate value of their assets, only a small percentage of total loans need to go bad to push a bank to the brim of failure

(Tsorhe et al). Thus, management of credit risk is very important and central to the financial health of banks and indeed the entire financial system.

As banks grant loans to customers, they need to make provisions for loan losses in their books. The higher this provision becomes, relative to the size of total loans, the riskier a bank befits. An increase in the value of the provision for loan losses relative to total loans is an indication that the bank's assets are becoming grimmer to collect. In effect the types of activities of various banks in Ghana causes higher credit risk and important for financial institutions to practice good and effective credit risk management in Ghana. The risk of a trading partner not fulfilling his obligations in full on due date or at any time thereafter is a risk that affects all aspects of business. It is also the risk to which supervisors of financial institutions pay the closest attention because it has been the risk most likely to cause a bank to fail.

#### 1.2.2 Causes of Credit Risk

Financial institutions suffer from credit risk due to the following reasons elaborated below:

- (a) Poor management practices: The practices of management of financial institutions can result to bad debts. This occurs when decisions made are not effective regarding loans.
- (b) Ineffective machinery for debt: this means the kind of mechanisms established to reduce bad debts are not effective.

- (c) Insider dealings: some employees of financial institutions causes of bad debts. This is because these employees engage in illegal activities that results to debts which cannot be recovered.
- (d) Poor credit administration: some financial institutions have poor credit administration where decisions or techniques for reducing bad debts are made.

# 1.2.3 Credit Risk Management

Credit risk management is a management tool that helps to minimize the rate of credit risk. However, 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 (Casu et al, pg. 282). Banks need to manage the credit risk inherent in the entire portfolio as well as the risk in individual credits and transactions.

Furthermore, credit risk management is responsible for the establishment of credit policies and procedures in financial institutions. Internationally, bad debts and NPLs are the most noticeable cause of credit risk among financial institutions; however, other sources of credit risk exist throughout the activities of a bank as mentioned earlier. Losses among banks are attributed to guarantees, that is either from third parties or any posted collateral, of recovery after bankruptcy and the liquidation of assets.

Going on, it is also responsible for the implementation of actions that limit the lending exposure of an organization and performs several functions aimed at reducing the risk associated with company financial assets and

banks. Credit policies and procedures, credit analysis and credit review help to prevent poor lending decisions and protect company investments (Franklin J. 2012).

### 1.2.4 The Growth of the Banking Industry

The banking industry in Ghana contributes to the economic development and growth. The existence of the banking industry enables the eradication of poverty and promotes employment through the existence of SMEs. The banking industry has promoted the activities of various business ventures such as Small and Medium Enterprises in Ghana by providing loans to commence and operate. However, it has enabled easy access to money into the economy through short-term loans and long-term loans as well as other securities.

Ghana's financial sector according to the Bank of Ghana is well capitalized, very liquid, profitable and recording strong asset growth. The total banking system assets at the end of October 2006 were GH¢4.8 billion, representing an annual growth of 35.5 per cent, as against 16.6 per cent as of the end of October 2005. The banking sector has emerged from severe financial and reputational damage resulting from economic recession and government debt in the 1980s and 90s, when Ghanaian banks and other financial institutions stopped lending to the private sector (M. George and Bob-Milliar, 2007).

The banking industry in Ghana for the last three decades has resulted total shareholders' funds to double up from GH¢792 million to GH¢1.8 billion

as banks injected new capital and retained earnings to meet the minimum capital requirements (Ghana Banking Survey, 2010). Though there is an outstanding growth in the industry, high interest rates and other risks such as credit risk affect the industry. In the banking industry, there is high competition among banks. Also, customers on the other hand have a lot of expectation in terms of customer service and product offerings. Industry firms have not only grown in terms of profitability but technology as well. Notwithstanding, the total value of NPLs amounted to GH¢I.445 billion, with some 65% classified as lost. Sub-standard and doubtful loans comprised 18.4% and 16.8%, respectively, of total NPLs (Business & Financial Times, 2011). From the above, it can be notified that the industry is suffering from bad debts which results to an increase in credit risk.

#### 1.3 Problem Statement

In Ghana, there has been an upsurge in default stemming from the low quality of the loan books written in prior years resulted in the non-performing assets in recent years for which financial institutions are still burdened with the associated costs but receive no interest income (Ghana Banking Survey, 2011). This has been cited by many banks as the reason preventing them from cutting further their lending rates. Thus, the inability of banks performing financially is due to the rate at which bad debt occurs in the industry.

The inability of defaulters to pay their loans on the agreed date prevents financial institutions from granting loans to people. Due to the

existence of bad debt provisions, there has been the tightening of money in the economy. Hence, loan applicants are denied access to credits to commence businesses of their choice and other purposes. As at December 2010, 17.6% of the banks' total outstanding loans were classified as non-performing. It is also worth noting that a year earlier the figure was 16.2%. Even as the operating environment for businesses has improved, the loan repayment performance has worsened (Ghana Business & finance, 2011). This is evident that a provision of loans to customers leads to risk. This makes banks insist on high interest margins on loans. However, debt collection is very difficult in Ghana as well as small companies give rise to risk since they have small cash flows.

	Sep - 06	Sep - 07	Sep - 08	Sep - 09	Sep - 10
SUB-STD (GH¢m)	42.9	49.2	109.7	258.6	227.6
DOUBTFUL (GH¢m)	61.5	59.5	134.1	248.8	361.8
LOSS (GH¢m)	143.4	112.4	164.3	340.6	780.1
Non-Performing Loans (GH¢m)	247.8	221.0	408.1	847.9	1,369.4
Non-Performing Loans Ratio (%)	11.0	6.1	7.6	13.2	18.1
NPL Net of Provision to capital (%)	4.8	4.2	9.2	15.2	18.3
Loan Provision to Gross Loan (%)	7.8	4.2	4.8	8.5	10.1

Source: Bank of Ghana

Figure 1.1 Quality of Asset of Ghanaian Banks Source: Ghana Business and Finance 2011

SECTORAL DISTRIBUTION OF TOTAL CREDIT AND NON-PERFORMING LOANS										
	Mining & Quarrying	Transport, Storage & Comm.	Agric, Forestry & Fishing	Electricity, Gas & Water	Construction	Misc.	Manufacturing	Services	Commerce & Finance	
Share of Total Credit	3.0	4.3	5.5	6.4	7.5	7.6	12.1	21.1	32.4	
Share of Total NPL	7.5	3.4	6.0	3.1	8.2	6.5	17.4	16.7	31.2	

Figure 1.2 Sectoral Distributions of Total Credit and NPLs Source: Ghana Business and Finance 2011

From figure 1 above, it can be realized that Non-Performing Loans as at September 2010 was GH¢1369.4 million and the Non-Performing Loans ratio was 18.1%. This shows that the banking industry is at risk though has attained high financial performance. Also, figure 2 illustrates the different shares of the total Non-Performing Loans and the share of total credit granted in the various sectors of Ghana. Commerce and Finance sector has the highest share of both credit and NPL in the country. For the share of the total credit, the Commerce and Finance sector has GH¢32.4 million and the share of total NPL is GH¢31.2 million. This signifies that there is an appalling performance of the Commerce and Finance sector in terms of the management of credits amongst members of the sector. The above portrays the reasons for the assessment of CRM amongst financial institutions.

### 1.4 Research Objectives

### 1.4.1 Main Objectives

 To assess the effectiveness of credit risk management amongst financial institutions.

# 1.4.2 Specific Objectives

- To find out the methods financial institutions use in recovering debts.
- To find out the procedures used to prevent bad debts.
- To identify the reasons why firms in the banking industry are not able to recover debts.
- To make recommendations to the effective use of credit risk management.

# 1.5 Research Questions

### 1.5.1 Main question

How do financial institutions manage credit risk?

# 1.5.2 Other questions:

- What are the methods used to recover debts?
- What are the procedures used to prevent bad debts?
- What are the reasons why Financial Institutions unable to recover debts?

#### 1.6 Significance of the Study

The research study intends to aid policy makers such as the Ministry of Finance and the financial and economic planners in formulating new and appropriate procedures to hit the potentials of the growing banking industry.

Bank of Ghana which is a regulating body in the country will be enabled to formulate required and appropriate credit risk management strategies to curb the rate of credit risk in the industry. In addition, the study would assist BoG to be able to have good strategies for the effective supervision of Credit Risk Management.

The study intends to serve as a reference material and guide for upcoming researchers in credit risk management and provides important information of the study is envisioned to be useful to banks in the banking industry in a way of managing credit risk.

# 1.7 Scope and Limitation of Study

The scope of the research study embraced the effectiveness of credit risk management among financial institutions in Ghana. It also basically focuses on the problems encountered during debt recovery, the reasons why debts are difficult to collect, and the methods used to prevent credit risk.

Some limitations of the study are as follows:

- The research study was time consuming because most employees at the Risk department were very busy to the extent of not having time to answer questionnaires.
- In addition, firms in the banking industry required certain procedures to be followed before questionnaires could be answered and this made the research stressful.
- The cost involved in undergoing the study was high since the selected banks used for the study were situated at far distances. Some employees were reluctant to answer questionnaires owing to the level of work load.

# 1.8 Chapter Organization

Chapter one focuses on the introduction, background information of the study, the problem statement, research objectives, and significance of the study and growth of banking industry.

Chapter two also focuses on the theoretical framework, review of literary works concerning the study and a conceptual framework.

Comparative analysis will be made using the various materials for the study.

Chapter three explains the methodology for the research which includes study design, study population sampling, data collection methods and procedures used in analyzing the data collected.

Chapter four illustrates and discusses data that were collected from the field and chapter five presented a summary of the findings, conclusions and recommendations.

# **Chapter Two: Literature Review**

#### 2.1 Introduction

This chapter discusses other literary materials or work done on credit risk management tools. Furthermore, the chapter makes comparative analysis and attempts to evaluate the credit risk management system with respect to Ghana's financial institutions. This literature review is important because it seeks to help answer questions the research paper attempts to answer. The performance of credit risk management tools will be evaluated as to whether it has helped curb credit risk among financial institutions in Ghana.

#### 2.2 Theoretical Framework

## 2.2.1 Definition of Credit Risk Management

According to the Casu et al (2006:282), authors of Introduction to Banking, credit risk management is explained as a management tool which enables to maximize a bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters. The authors further explain that "the need for financial institutions like banks to manage credit risk arising from individual creditors, individual transactions and the risk inherent in their entire portfolio". The essential functions of credit risk management according to Raghavan (2003) are to "identify, measure, and more importantly monitor the profile of the bank". By this definition, credit risk management helps financial institutions be able to check, track and evaluate their various activities in order to prevent and correct credit risk.

The author also describes risk management as a system which is "a proactive action in the present for the future".

Furthermore, Kalapodas et al (2005) describes credit risk management as a management tool which attempts to eradicate, reduce and manage risks, increase the benefits and avoid harm from taking risks. In effect credit risk management prevents financial institutions from credit risk and enables them to improve in terms of financial performance. Also, CRM is described by Gestel et al as primarily concerned with reducing earnings volatility and avoiding large losses in a firm. In a proper risk management process, one needs to identify the risk, measure and quantify the risk and develop strategies to manage the risk effectively.

# 2.2.2 Evolution of Credit Risk Management

According to Aaron Brown, credit risk can be traced back thousands of years. To him credit is much older than writing. Hammurabi's Code, which codified legal thinking form 4000 thousand years ago in Mesopotamia, did not outline the basic rules of borrowing and as well as concepts like interests, collateral and default (Brown A, 2004). However, this code highlights that failure to pay a debt is a crime that should be treated as robbery and swindle.

This literature goes on by arguing that the Bible had archives of enslavement for debt without discontentment; for example, the story of Elisha and the widow's oil concerns the threatened enslavement of two children because their father died without paying his debts. But the Bible also

goes further than Hammurabi in limiting the collection rights of creditors – purely as a matter of mercy. The modern bankruptcy concepts of protection from creditors and extinguishment of debt are entirely absent from both the Bible and Hammurabi. Historically, credit avoidance was a misconduct which was punishable by death, torture etc.

Credit risk is a necessary consequence of a vibrant economy. Everyone involved in complex production processes must wait for payment until the goods or services are delivered to the final consumer. When there is a failure in the process, the loss must be allocated among producers or between producers and investors. These intermediaries can reduce the amount of risk through fractional reserves and the amount of risk through diversification. However, the delays in paying of credits led to the promotion of credit risk. "From the 18<sup>th</sup> century to the 19<sup>th</sup> century, Lewis Tappan founded the Mercantile Agency which became Dun & Bradstreet. This company provided commercial information on businesses throughout the United States"(Brown Aaron, 2004).

About the same time, specialized financial press arose. This firm merged with Standard Statistics which became Standard & Poor's. During 1916 Standard & Poor's got its official credit ratings (Brown A, 2004). The first major attempt at quantification was W. Braddock Hickman's three-volume study of US corporate bonds, published between 1953 and 1960. Due to his economics field, all his facts about finance led him to wrong conclusions. Also, Brown(2004) argues that, as older practitioners took

Hickman's wrong turn, the field of credit risk management opened up to young innovators and during the period of 1965 to 1975, people under the age of thirty were interested in credit risk management and performed jobs pertaining to credit risk.

#### 2.2.3 Merits and Demerits of CRM Tools

CRM system is a risk management tool that has brought success to most financial firms who are able to implement it in their day to day activities. Santomero (1997) highlights some benefits of credit risk management. He articulates that the practice of credit risk management involves helps to reduce the chances of idiosyncratic losses from standard banking activity by eliminating risks that are unnecessary to the institution's business purpose. Furthermore, Santomero argues that credit risk management has led to standardized ratings across borrowers and a credit portfolio report that presents meaningful information on the overall quality of the credit portfolio.

Wenner et al (2007) spells out that CRM enables financial institutions to become viable and attain sustainable growth, leads to solvency and reduces costs and improve profit margins. In the book Credit Risk Management, Gestel et al (2009), also identifies reduce earnings volatility, avoidance of losses, it acts as a decision aid to bankers, better risk return, avoidance of pitfalls like credit concentrations, lack of credit discipline, aggressive underwriting to high-risk counterparts and products at inadequate prices.

On the contrary, there are demerits or costs that may prevent some financial institutions from practicing CRM. Although these costs, cost of expertise, time consuming, expensive to practice, can easily affect the firm's performance but these are usually experienced in the early stages of implementation. CRM is a system that needs careful practice which can prevent cost from arising in a firm; it also depends on a strong relationship and total quality management with employees.

#### 2.2.4 Process of CRM

In the book Credit Risk Management, by Gestel et al (2009), states that credit risk is managed in various ways. The most important techniques to manage credit risk are:

- Selection: A good credit risk management starts with a good selection of counterparts and products. Effective risk assessment models and qualified credit officers are key requirements for a good selection strategy. During this stage, important credit decisions are made at credit committees. Further, counterparts with a higher default risk, more collateral is required in order to reduce recovery risk. Recovery risk is also reduced by requiring more stringent covenants, examples, on asset sales. A good selection strategy also implies a good pricing of the products in line with the estimated risk.
- **Limitation**: This step helps to restrict the exposure of the bank to a given counterpart, it avoids the situation that one loss or a limited number of losses endanger the bank's solvency. The total amount of

exposure to riskier counterparts is more restricted by a system of credit limits. The limit setting of the bank determines how much credit a counterpart with a given risk profile can take.

- Diversification: This has got to do with the allocation process of banks will provide a good diversification of the risk across various borrowers of different types, industry sectors and geographies. This method spread the credit risk in order to avoid a concentration on credit risk problems. It is also easier for large and international banks.
- Credit enhancement: The authors described this step as when a
  bank observes it is too exposed to a certain category of counterparts;
  it does this buying credit protection in the form of guarantees from
  financial guarantors or via credit derivative products. By the
  protection, the credit quality of the guaranteed assets is enhances.
  This is also known as credit risk mitigation.

Basel committee on Banking Supervision elaborates on the basic principles for the assessment banks' management of credit risk. One of the principles is establishing an appropriate credit risk environment therefore management should have responsibility for approving and periodically reviewing the credit risk strategy and important credit risk policies of the bank, and banks should be able to identify and manage credit risk inherent in all products and services. The second principle mentioned in the article operating under a sound credit granting process, this is where banks operates under sound, well-defined credit-granting criteria. These criteria include a thorough understanding of the borrower or counterparty, as well as

the purpose and structure of the credit, and its source of repayment (Basel Committee on Banking Supervision, 1999).

According to the Basel Committee on Banking Supervision, banks should be able to establish overall credit limits at the level of individual borrowers and counterparties, and groups of connected counterparties that aggregate in comparable and meaningful manner different types of exposures, both in the banking and trading book and on and off the balance sheet. Maintaining an appropriate credit administration, measurement and monitoring process, establishing adequate controls over credit risk and the role of supervisors in order to measure, monitor and control credit risk as part of an overall approach to risk management.

However, with these methods and principles of credit risk management can be prevented or reduced among financial institutions. With effective and efficient use of these methods financial institutions can attain high financial performance and remain solvent.

#### 2.2.5 The Ghanaian Economy and CRM

The Ghanaian economy has gone through many different eras of structural adjustment programs because it has suffered many financial and economic distresses which have also affects the performance of financial institutions. As with most developing countries that have pursued economic and structural reforms, Ghana has been undergoing a process of financial sector restructuring and transformation as an integral part of a comprehensive program for some time (Bank of Ghana Consultation Paper,

2007). "Unlike most central banks, which contended the global crisis through the lessening of monetary policy, the BoG was compelled to tighten policy in 2009. The finance, insurance, real estate and business services contributed about 5% of the GDP in Ghana" (Mhango, 2010).

Domestic credit growth was influenced by the change in fiscal policy in 2009 as well as the global economic recession. Following public sector credit growth's acceleration in 2008, which crowded out the private sector, it slowed in 2009 under a more fiscally prudent administration. However, as public sector credit growth slowed, the global crisis emerged and further subdued the private sector's appetite for credit therefore the need for credit risk management. The slowdown in economic activity in 2009 depressed incomes and reduced borrowers' abilities to service their debt. The author further spells that as a result of the economic crisis, the ratio of non-performing loans increased to 9.6% at the end of March 2009, with above-average ratios in the forestry, mining and construction sectors. The NPL ratio continued to increase during 2010 and reached an alarming 20% in February 2010. In response to the rising NPL ratio, commercial banks tightened their lending standards as a means of limiting their risk exposure (Mhango, 2010).

# 2.3 Conceptual Framework

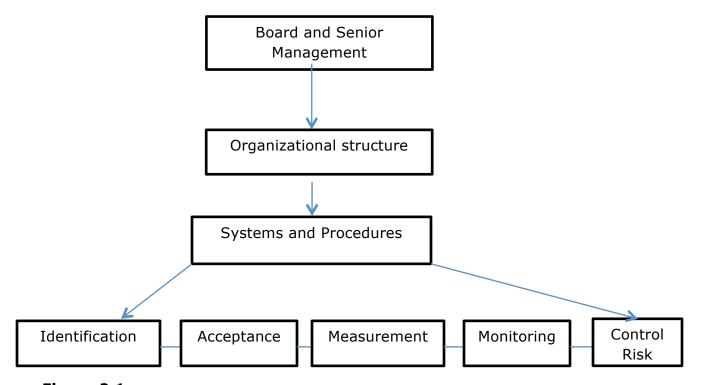


Figure 2.1 Source: Author's Field Work

The conceptual framework shows a framework of the relationships between the components of credit risk management that contribute the reduction of credit risk. The figure also shows a flowchart of the components of credit risk management. However, these components contribute to efficiency and effectiveness of credit risk management. They constitute the Board and Senior Management, the Organizational Structure, and Systems and Procedures. Under systems and procedures, there are identification, acceptance, measurement, monitoring, and control risks.

### 2.3.1 Board and Senior Management

The board and senior management of financial institutions are responsible for the approval and formation of credit risk. Also, the board and senior management are responsible for reviewing strategies of the bank. In a literary paper on credit risk management (Guidelines for Commercial Banks), there are other duties of the Board and Senior Management. These include: delineating bank's overall risk tolerance in relation to credit risk, ensuring that bank's overall credit risk exposure is maintained at prudent levels and consistent with the available capital, ensuring that top management as well as individuals responsible for credit risk management possess sound expertise and knowledge to accomplish the risk management function, ensuring that the bank implements sound fundamental principles that facilitate the identification, measurement, monitoring and control of credit risk. They are also responsible for ensuring that appropriate plans and procedures for credit risk management are in place.

### 2.3.2 Organizational Structure

The organizational structure helps to maintain bank's overall credit risk exposure within the parameters set by the board of directors, the importance of a sound risk management structure is second to none. While the banks may choose different structures, it is important that such structure should be commensurate with institution's size, complexity and diversification of its activities. It must facilitate effective management oversight and proper execution of credit risk management and control processes. Each bank, depending upon its size, should constitute a Credit Risk Management

Committee (CRMC), ideally comprising of head of credit risk management

Department, credit department and treasury

(http://www.sbp.org.pk/riskmgm.pdf).

This committee reporting to bank's risk management committee should be empowered to oversee credit risk taking activities and overall credit risk management function.

# 2.3.3 Systems and Procedures

**Identification:** Banks operate within a sound and well-defined criteria for new credits as well as the expansion of existing credits. Banks make sure that credits extend within the target markets and lending strategy of the institution. Before allowing a credit facility, the bank must make an assessment of risk profile of the customer/transaction. This may include:

- a) Credit assessment of the borrower's industry, and macro-economic factors.
- b) The purpose of credit and source of repayment.
- c) The track record / repayment history of borrower.
- d) Assess/evaluate the repayment capacity of the borrower.
- e) The Proposed terms and conditions and covenants.
- f) Adequacy and enforceability of collaterals.
- g) The application is accepted by the required authority.

#### 2.3.4 Measurement

The measurement of credit risk is of vital importance in credit risk management. A number of qualitative and quantitative techniques are used

to measure risk. Banks establishes a credit risk rating framework across all type of credit activities. The rating may incorporate business and financial risk.

### 2.3.5 Credit Risk Monitoring and Control

Credit Risk Monitoring refers to relentless monitoring of individual credits inclusive of Off-Balance sheet exposures to obligors as well as overall credit portfolio of the bank. Banks need to enunciate a system that enables them to monitor quality of the credit portfolio on day-to-day basis and take remedial measures as and when any deterioration occurs. Such a system would enable a bank to ascertain whether loans are being serviced as per facility terms, the adequacy of provisions, the overall risk profile is within limits established by management and compliance of regulatory limits.

Establishing an efficient and effective credit monitoring system would help senior management to monitor the overall quality of the total credit portfolio and its trends.

The banks credit policy should explicitly provide procedural guideline relating to credit risk monitoring. At the minimum it should lay down procedure relating to:

- a) The roles and responsibilities of individuals responsible for credit risk monitoring.
- b) The assessment procedures and analysis techniques (for individual loans & overall portfolio).
- c) The frequency of monitoring.
- d) The periodic examination of collaterals and loan covenants.

- e) The frequency of site visits.
- f) The identification of any deterioration in any loan.

# **Chapter Three: Methodology**

#### 3.1 Introduction

Already mentioned previously in chapter one, the pursuit to discern whether financial institutions in Ghana possesses effective and efficient use of CRM tools and the challenges undergone, as consequence the need to find suitable data which upon analysis would inform whatever conclusions and recommendations put across. The research paper focused on the financial institutions in Ghana for relevant data collected.

The study concentrated on primary data from UT Bank, CAL Bank, Agricultural Development Bank, Prudential Bank and Ecobank; other secondary sources were particularized upon, and the rationale behind each choice is explained in the chapter. However, the chapter explains research tools employed and methods that were used in the data collection process. This explanation entails the types of data to be collected, the sources of data, sample methods to be used and research analytical tools.

#### 3.2 Research Design

Descriptive and Exploratory forms of research were employed in conducting the research. Descriptive method of research is a type of research method, used to acquire data relating to the existing status of a phenomenon in order to define what already exists in the status quo (Key, 1997). Descriptive method of research is beneficial for researchers due to its litheness. It employs the use of both qualitative and quantitative data. In addition, the researcher further concentrated on the use of surveys. Surveys

are classified as a type of descriptive research tool. Surveys assist researchers to obtain data about practices, status quos or opinions through the use of questionnaires or interviews.

On the other hand, exploratory research is habitually used to acquire data in order to explain problems which are unclearly defined. The research study presently is an investigative endeavor to collect information regarding the practices of Credit Risk Management that enables CRM to be effective, the methods utilized for debt recovery, and the problems of debt recovery. The researcher used exploratory research to acquire data from respondents so as to communicate coherent recommendations and conclusions for the study.

# 3.3 Target Population

The study population for the research was heterogeneous because it consisted of five banks which are the head offices of Ecobank, CAL Bank, ADB, UT Bank and Prudential Bank. These financial institutions were selected due to the burdensome of the entire population. However, the main target of this study was the employees of the Risk Department of each of these banks. Since the risk department is responsible for the processing of loans for applicants and the management of risk in their banks. They are also responsible for monitoring and controlling credits granted to customers.

#### 3.4 Sample Size

Out of the study population above, the sample size for the study was thirty (30) respondents. These respondents were from the five selected

institutions mentioned above. Sample size of thirty was chosen because the number of employees responsible for risk management in most financial institutions is limited. From each institution, six employees from the risk department took part in the filling of the questionnaires.

# 3.5 Sampling Technique

The sampling technique used for the research was qualitative and quantitative methods of purposive sampling. These sampling methods were utilized because they are very useful for conducting exploratory research. Also, the reason for these techniques was because they are cost effective and time spent is less.

# 3.5.1 Purposive Sampling

Purposive sampling is a non-representative subset of some larger population, and is conducted to serve a very specific need or purpose" (Trochim 2005). This method of sampling was useful to the research because it consumes less time and is much less expensive. Another reason for the usage of purposive sampling was that the employees not qualified for the requirements are eliminated since the results are expected to be more accurate.

# 3.6 Research Methodology

Primary and Secondary sources of data were used for the research.

Primary data was adopted because information obtained is reliable and objective. As compared to secondary data, primary data is very valid.

However, it is very difficult to use primary data because some of the data are

limited and very difficult to collect due to lack of cooperation from respondents. On the other hand, secondary data are data or information already existing and processed information which has some relevance to the study. The secondary data collected was from written publications such as books, journals, articles, newspapers and other important papers. This type of data source can be biased, less useful and not reliable.

#### 3.7 Research Instruments

The research instruments used for the assessment of credit risk management were questionnaires. The research instrument can be seen in the Appendix.

#### 3.7.1 Questionnaires

Open-ended and close ended questions were asked during the data collection period. Open-ended questions allows for depth response from respondents whereas close-ended questions allows for short responses such as "Yes" or "No" answers. This was aimed at the employees of the risk department of each selected financial institution. Questionnaires may be easy to analyze, and cost effective. One of the limitations of the questionnaires is that some employees were reluctant in answering the questions because they taught it was time wasting. However, due to accuracy and reliability of outcome from the questionnaires answered, the researcher examined all the feedback from the survey to guarantee that good answers derived from respondents addressed the main objectives of the research. Questionnaires can be referred to in the appendix.

# 3.8 Data Analytical Tools

With the aid of SPSS, graphical charts such as bar charts, pie charts and frequency tables were employed to critically analyze the data and evaluate the study. Content analysis was also used in analyzing the data collected. Content analysis is a type of analytical tool used for the interpretation of content of text data through the systematic classification process of coding and identifying themes or patterns (Zhang et al, Pg. 1). Therefore, for the qualitative data content analytical tool was used.

# Chapter Four - Analysis and Discussion of Data 4.1 Introduction

This chapter comprises of the findings, analysis and interpretations of data collected in relation to the study. These findings will be presented in a form of pie charts, bar graphs and frequency tables to make it easier for data obtained to be understandable. The information ascertained was based on the responses from the questionnaires distributed to the employees of the risk department of each bank taken into consideration. The findings were centered on the employee information and company practices on credit risk management that makes CRM effective. In addition, problems and factors of the external environment pertaining to the operations of credit risk management were obtained. Also the methods used for debt recovery and problems encountered during debts recovery were discovered.

#### 4.2 Employee Information

The information of employees included the working experience of the employees, age and the positions of employees at the risk department of the sample population. From table 4.1 below, the total frequency which is the total number of respondents is 30; the highest most occurred frequency is eighteen (18) which corresponds to 5-10 years of working experience and represents 60% of the sample population. This implies that most of the employees at the risk department of the sample population are very much experienced pertaining to credit risk management. This also means employees have enough knowledge as to managing credit risk and could result to quality management.

	Frequency	Percent	Valid Percent	
less than 5 years	4	13.3	13.3	
5-10years	18	60	60	
11-15 years	8	26.6	26.6	
Total	30	100	100	

Table 4.1: Work Experience Source: Field Survey, 2012

In table 4.1.2, ninety percent (90%) of the sample population constitute the middle employees. This shows that from the sample population; the middle employees mostly work on credit risk and processes loans applied by applicants. It also depicts that they also assist the senior employees and the Board of Directors to minimize risk in their firms. However, the activities of the middle employees must be supervised in order to promote Credit Risk Management. During the research study, it was realized that most of the executive employees aided in the policy formation in relation to credit risk and supervises the work of the middle employees.

	Frequency	Percent	Valid Percent
Executive employee	3	10	10
Middle employee	27	90	90
Total	30	100	100

**Table 4.1.2: Employees' Position** 

Source: Field Survey, 2012

As shown in table 4.1.3 below, 46.667% employees fall under the ages between thirty-one to forty years. Since the greater proportion of the employees fall within the ages between 31-40 years, it shows that the managing of credit risk management is efficient. However, the ages of respondents are very significant for some banks in Ghana. It is realized that

employees over 60 years are normally expelled or asked to go on pension since most of such employees are seen not to be productive. The management of CRM is efficient because individuals who fall under such age category are very active in terms work.

	Frequency	Percent	Valid Percent
20-30 years	6	20	20
31-40 years	14	46.667	46.667
41-50 years	10	33.333	33.333
Total	30	100	100

Table 4.1.3: Ages of the Employees

Source: Field Survey, 2012

#### 4.3 Credit Risk Management Tools Used by Financial Institutions

The tools utilized for the effectiveness of CRM were discussed to discover the methods or ways used to manage credit risk management. Some of these tools are credit control, monitoring, identification, measurement and others. The respondents were asked to state the procedures or tools of Credit Risk Management in their respective institutions. The chart below summarizes their responses. From the responses it was seen that 37% of the respondents practice the following tools of managing CRM: Credit Assessment, the purpose of credit, track records of the applicants, assessment of the repayment, proposal of terms and conditions, and the adequacy of collateral presented for the credit. These practices constitute the components of credit risk management. They also contribute to the effectiveness of risk management among financial institutions.

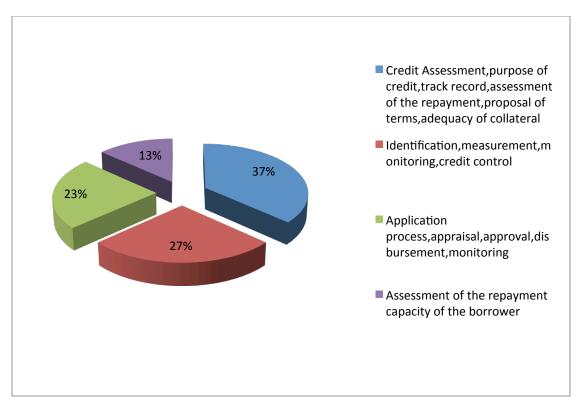


Figure 4.2: Practices of Credit Risk Management Source: Field Survey, 2011

#### 4.4 The Effectiveness of Credit Risk Management

The effectiveness of Credit Risk Management is very essential to financial institutions. This enables the financial institutions to know whether they are achieving good financial performances in relation to Credit Risk Management. The respondents were asked to rate the effectiveness of CRM; 21 respondents (that is 70% of the sample size) said the methods adopted for the practice of credit risk management are effective whiles 9(30%) of them said they were good. From the survey, it can be realized that the methods and procedures used in managing credit risk in the various financial institutions have high positive impact on them. Figure 4.3.1 below, illustrates the reasons for the effectiveness of credit risk management.

Some of the reasons stated from the survey are that credit risk management helps to reduce Non-Performing Loans, increases portfolio growth, increase in profitability performance, reduction of credit default rate and an increase in cash flows at the end of working period. However, majority (45%) of the respondents said credit risk management reduces Non-Performing Loans. Also, the number of times risk management trainings are conducted and the content of these trainings and workshops contribute to the effectiveness of Credit Risk Management. From the survey conducted, 46.667% of the respondents said trainings and workshops were organized every six months whiles 40% of them had trainings annually. However, trainings and workshops are centered on risk management procedures and assessment, financial statement analysis, and monitoring of risk.

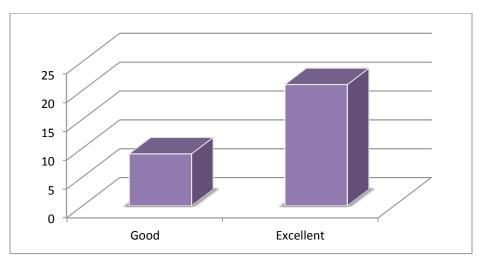


Figure 4.3: The Effectiveness of Credit Risk Management Source: Field Survey, 2011

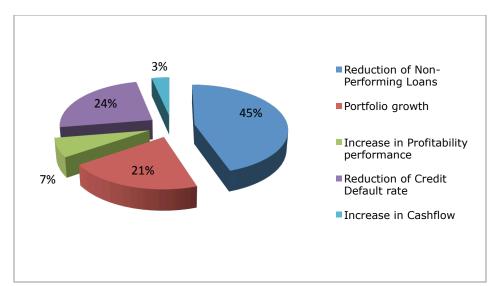


Figure 4.3.1: Reasons for the effectiveness of Credit Risk

Management

Source: Field Survey, 2011

#### 4.5 Methods of Bad Debt Recovery

A debt from a loan, credit line or accounts receivable that is recovered either in whole or in part after it has been written off or classified as a bad debt. Because it generally generates a loss when it is written off, a bad debt recovery usually produces income (Investopedia, 2012). However, it is a legitimate and necessary business activity where creditors and collectors are able to take reasonable steps to secure payment from consumers or businesses that are legally bound to pay or to repay money they owe. It is important that any organization involved in recovering debt is aware of their legal obligations. Therefore it is very important for financial institutions to engage in debt recovery in order to attain loans credited to customers. Respondents were asked to state the various ways debts are recovered. From the survey conducted, 50% said collection teams or unit and outsourcing methods of debt recovery are used for recovering debts but

other respondents alleged that they used legal proceedings and warning letters, follow –up and collateral.

Furthermore, though these methods assist financial institutions to ascertain debts; they also encounter certain problems. 47% of the respondent concluded that most of their defaulters were untraceable and due to the bad addressing system in Ghana defaulters are not traced. In addition, some customers who default change their addresses of both their place of resident and business enterprises.

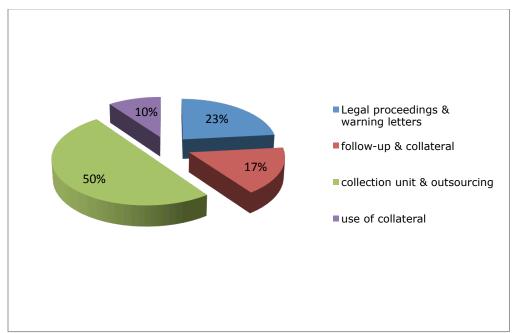


Figure 4.4: Methods of Bad Debt Recovery

Source: Field Survey, 2012

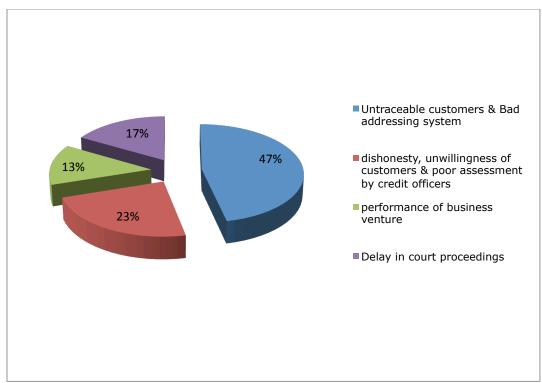


Figure 4.4.1: Problems of Bad Debt Recovery Source: Field Survey, 2011 4.6 Credit Appraisal

Credit Appraisal is a method of evaluating credits before and after loans has been granted to customers. In addition, credit appraisal is very important to financial institutions because helps to reduce the rate of risk exposure which can lead to insolvency. From the research it was gathered that methods of credit appraisal were used to perform credit assessment. According to the respondents, the mostly used methods of appraisal are the purpose of credit, nature of business, collateral security and financial performance.

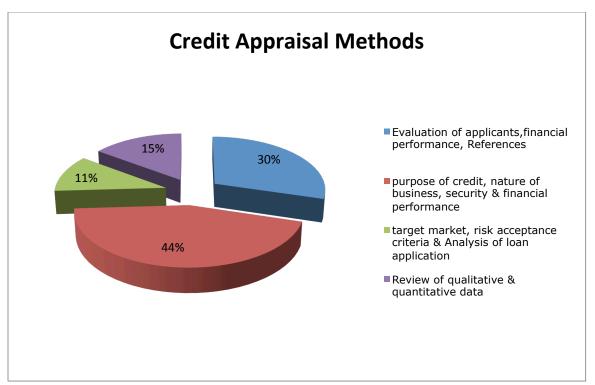


Figure 4.5: Methods of Credit Appraisal Source: Field Survey, 2012

#### 4.7 Internal and External Factors Affecting the Effectiveness of CRM

According to the responses derived from the research the following were the factors affecting the operations of credit risk management, interest rates, exchange rates, large number of SMEs, political stability, economy growth and the credit checking or referencing bureau and collateral registry introduced by Bank of Ghana. However, figure 4.6 below shows that 41% of the respondents said political stability and growth of the economy caused the major effect on credit risk management. This shows that policies of made by Government are of great significance to financial institutions.

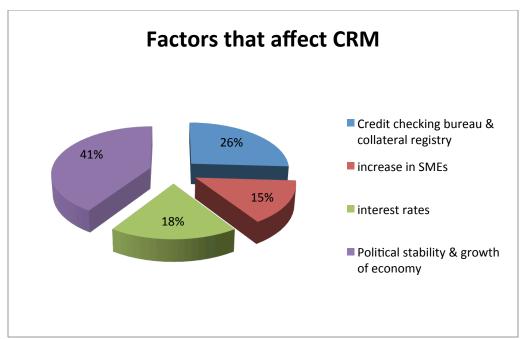


Figure 4.6: Factors Affecting Credit Risk Management Source: Field Survey, 2012

#### 4.8 Discussion of Findings

The findings of the study illustrates that financial institutions manage credit risk management in the following ways: credit assessment, the purpose of credit is known, track records of applicants is evaluated, assessment of repayment, Proposal of terms and conditions pertaining the credit, adequacy of collateral security, monitoring and controlling are considered to be the methods that enhances the reduction of credit risk. Further, the findings of the study indicate that financial institutions reap significant benefits from the management of credit risk. These benefits includes: reduction of NPLs and bad debts provisions, portfolio growth, increase in cash flow and good financial performance. Therefore, the overall results showed appreciable improvements in the banking industry of Ghana.

The bad addressing systems, the absence of defaulters are considered to be the major disadvantages of debt recovery. This is why an attempt is

made in most banks and other financial institutions to encourage, through formation of policies in order to address these problems.

The findings of the research study are further contrasted and compared with other studies for consistency. The operations of financial institutions in Ghana are influenced by factors both internal and external environment. It can be said that, they, through the Governmental policies, infrastructural development, societal attitudes, economical factors, and incompetency of some credit officials are affected both positively and negatively. These factors also determine the effectiveness of Credit Risk Management amongst financial institutions.

From the survey, the existing factors that currently affect the banking industry are interest rates, exchange rates, the increasing number of SMEs, political stability and economic growth, credit checking bureau and collateral registry. These factors contribute to the effectiveness of credit risk management. From the findings, credit checking bureau and collateral registry were recently introduced by Bank of Ghana in order to improve debt recovery.

Other findings from the research were that employees from the risk department are trained every six months within a year. The trainings are mostly done both internally and externally. For external trainings, workshops, seminars, and lectures are organized. Trainings are often about risk procedures and assessment of credits. It was realized that every training session was important because it enabled employees to work proficiently and through these trainings credit risk is prevented.

The findings from the study were that loans applied are processed by the end of three weeks and some respondents said loans were ready by within a week.

#### **Chapter 5: Conclusion and Recommendation**

This chapter presents the conclusion of the research study and discusses recommendations.

#### 5.1 Conclusion

As a result of an increasing rate of credit risk amongst financial institutions in developing countries such as Ghana, Credit Risk Management is a management function that creates opportunities for financial institutions to minimize bad debt provisions and Non-Performing Loans as well as credit risk. The research provides a broad review of certain theoretical areas perhaps believed to be very critical in influencing institutional credit risk management.

It was realized from the study that for financial institutions to prevent credit risk, key methods and policies should be followed in order to attain effective management practice.

The following are the conclusions derived from the study:

- Majority of the respondents stated that political stability, interest rates
  and economic growth contribute to the effectiveness of credit risk
  management. Also, the stability of the currency exchange rates and
  efficient management of government fiscal policies are factors that
  affect the operations of financial institutions in relation to credit risk
  management.
- Problems such as dishonest customers, poor performances of business ventures, bad addressing systems, court proceedings and untraceable

- customers are encountered by financial institutions. These problems cause the inability of these institutions to recover credits.
- In addition, it was comprehended that most of the financial institutions recovered debts through the use of warning letters, debt collection unit or teams, external collectors and legal proceedings.
- The methods and procedures used by financial institutions to manage credit risk appropriately and effectively were credit assessment, purpose of the credit, track records of applicant, monitoring of credit, controlling of credit, evaluating collateral provided by the customer, and proposing of terms and conditions in relation to the loan requested. Additionally, respondents realized that these methods were effective.
- From the research findings, it was concluded that credit risk
  management is effective because there was reduction of credit default
  rate, increase in cash flow, increase in portfolio growth and a reduction
  of NPLs. All these reasons applied to most of the respondents.
- Information about the process of credit appraisal was realized from the findings and majority of the respondents stated that these processes were done to make sure the qualified applicant is granted credit.

#### **5.2 Recommendations**

Based on the research findings, the following recommendations are put forward for policy consideration and implementation by financial institutions in Ghana.

- There is the need to encourage the enactment of strategies and policies to trace defaulters who are nowhere to be found.
- Furthermore, there is the need to provide severe sanctions to credit
  defaulters who do not meet their obligations agreed upon. Therefore,
  collateral securities should not be the only method used to recover
  debts.
- The addresses provided by customers should be thoroughly checked in order to be able to trace customers when the need arise. Also, alternate addresses should be requested by the customer or applicants to assist credit collectors recover debts easily.
- Training should be organized every three months in order to learn improve the productivity of employees. Also, frequent training will help to manage credit risk effectively and credit officials will become very competent when analysing and assessing credit.
- In terms of infrastructural development, the Government of Ghana should introduce policies that will promote good town planning to prevent the problem of untraceable addresses. Also, there should be the availability of professional services such as auditors to audit the SME sector since most SMEs default and have poor financial performances.

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# **Appendix**

### **Questionnaires**

# Thesis Topic: An Assessment on the Effectiveness of Credit Risk Management Tools Utilized by Financial Institutions in Ghana

This questionnaire is geared at seeking information on your organization's practices and your opinion on credit risk management.

Employee Information
1. How long have you worked for your bank?  Less than 5 years  5-10 years  11-15 years  16-20 years  Over 20 years  How old are you?
Less than 20 years 20-30 years 31-40 years 41-50 years over 60 years
3. What category of employees do you belong to in your current place of work?
Executive employee Middle class Junior employee
Company Environment
4. How is Credit Risk Management practiced in your firm?

5.	How would you rate the effectiveness of this management tool?
	Bad Good Excellent
6.	Under what basis is the effectiveness of credit risk management
	measured?
7	Have you ever received training on the duties and tasks you are
/.	
0	required to carry out? Yes No
δ.	How often are you given training on the job?
	Quarterly Monthly Six Months Annually
9.	What kind of training are you offered?
10	.What is the training about?
11	. Has the implementation of Credit Risk Management helped to
	minimize bad debts in your firm?
	Yes
12	.If yes, how has it minimized bad debts in your firm?

13.How does the firm recover debts? Briefly explain
14. What are the problems encountered during debts recovery from
customers?
castomers.
15. What steps are used to appraise credits in your firm?
16.What is the loan turnaround time of your firm?

# Company and External Environment

17. What is the effect of the following factors of the Ghanaian environment on your firm's operations?

	High-	Positive	Negative	High-
		1 0010110	regative	9
	Positive			Negative
Government				
Policies				
Economy				
Societal				
Attitudes				
Infrastructure				

18. What alterations can be done to the above factors to make your firm's operations better?

Government Policies	Economy	Societal Attitudes	Infrastructure

	the existir 's operatior	_		environment	that	make