KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

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SCHOOL OF BUSINESS

ANALYSIS OF BAD DEBT ISSUES AT GARDEN CITY SAVINGS & LOANS LTD., KUMASI.

A DISSERTATION SUBMITTED TO THE SCHOOL OF BUSINESS IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTERS OF BUSINESS ADMINISTRATION

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DECLARATION

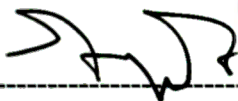"I declare that I have personally, under strict supervision undertaken the study therein submitted".

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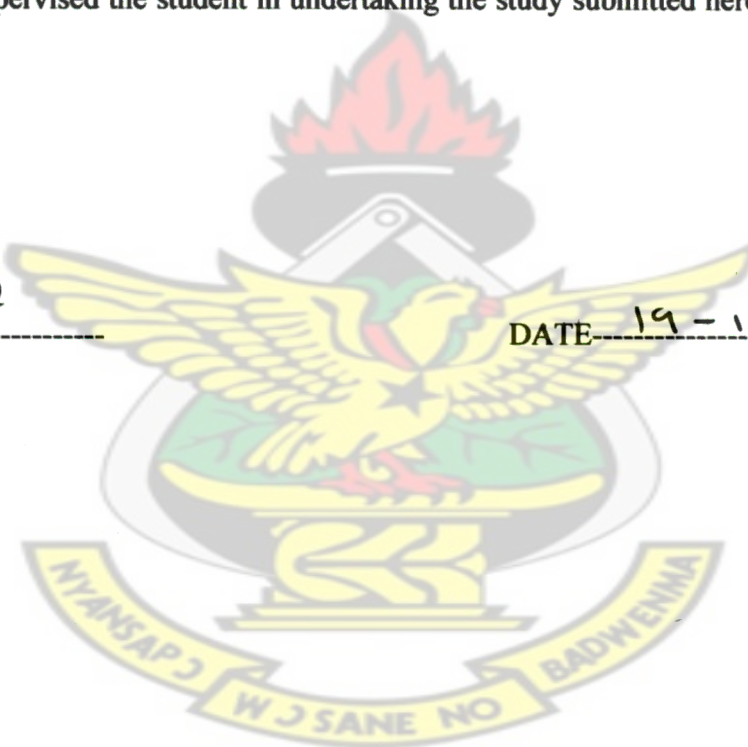
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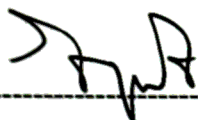------------------------------------ DATE------- 19 - 10 - 09

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DEDICATION

To God be the Glory, Great things he has done! I thank the Almighty God for how far he has brought me as far as this study is concerned.

I wish to dedicate this work to the following people:

i.   My dear wife, Yaa Fosua, for the encouragement and support without which it would have been difficult to accomplish this study.

ii. To my loving children: Festus Kesse, Claudia Kesse, Griffiths Kesse, Gilbert Kesse and Jeffrey Kesse, I say "ayekoo" for the patience especially when I had to stay away from you at certain times preparing to reach the "goal".

iii. And to my dear mum and late father, I cherish the love and trust you brought to bear on me during my upbringing which set the strong foundation that has brought me this far.

ACKNOWLEDGEMENT

ABSTRACT

The study attempts to ascertain the determinants of bad debt loans in microfinance institutions in Ghana with Garden City Savings and Loans Ltd, in Kumasi as the case study. The study employs both primary and secondary data to determine the determinants of bad debt in microfinance institutions in Ghana. Consistent with international evidence we find that the real effective exchange rate has a significant positive impact on non-performing loans. This indicates that whenever there is depreciation in the local currency the bad debt portfolios of microfinance institutions are likely to be higher. Our empirical results show that GDP growth is inversely related to bad debt, suggesting that an improvement in the real economy translates into lower bad debt. We also find that banks that charge relatively higher interest rates and lend excessively are likely to incur higher levels of bad debt. However, contrary to previous studies, our evidence does not support the view inflation has any impact on bad debt.
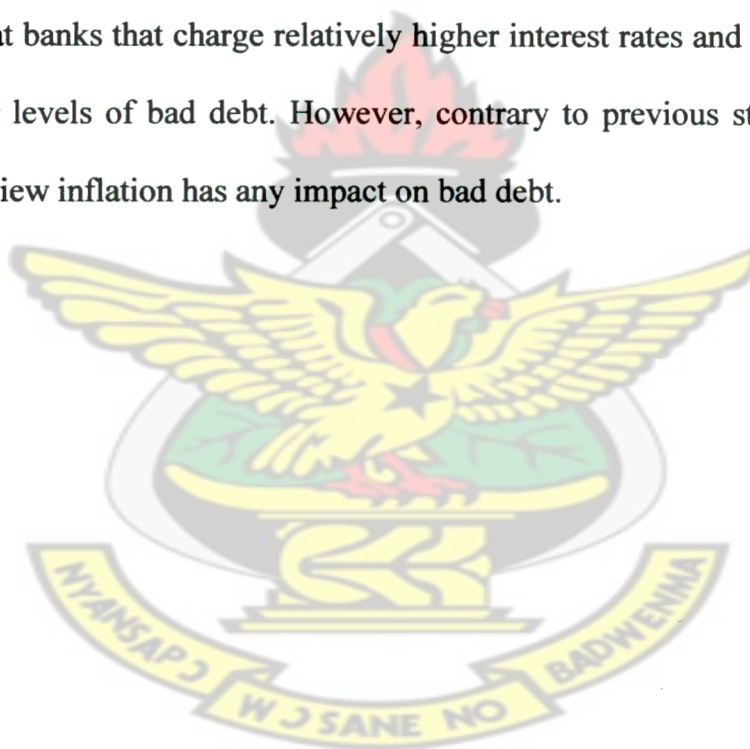
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CHAPTER ONE

INTRODUCTION

1.0   Background to the Study

Many financial institutions are continually being faced with difficulties dealing with bad debts spanning over several years thereby posing a danger to their profit margins, working capital and sustainability; and causing consternation in the financial sector. The most affected groups among financial institutions that are often hit by bad debts are the savings and loans institutions. This is because these institutions usually grant unsecured loans to their clients.

Bad debt means money owed by persons or institutions which are unlikely to be recovered. Financial theory attributes non-recovery of loans in financial contracts to widespread informational asymmetry between borrowers and lenders in financial markets regard with their credit worthiness. Financial institutions are claimed to have the ability to deal with such informational asymmetry and the resulting moral hazards and adverse selection in financial contracts. However, close examination of financial statements of many financial institutions reveal horrifying pictures of high bad debts.

The causes of bad debt are many and varied and not usually due to irresponsibility on the part of the borrower as is commonly assumed. Economic shocks such as high inflation, exchange rate volatility and upward movements in interest rates as well as lending strategies of financial institutions contribute to the occurrence of bad debts (Popiel, 1994). The literature also attributes job loss, ill health and unexpected changes in factor prices among other things to the causes of bad debts in organizations. Nevertheless, mismanagement or misappropriation of borrowed funds can also results in bad debt. Unfavourable weather conditions can also cause huge losses to

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farmers and hence the credit to the agricultural sector will suffer repayment problem. Dishonesty on the part of officials of lending institutions can result in huge bad debt bills for financial institutions. There are instances where loan officers or managers give unsecured loans to clients because of their personal relationship with the clients. The relationship could range from friendship to family or church member. Since such loan may be unsecured, repayment may be much doubtful.

The effects of debts can be devastating to people, their families and sustainability of lending institutions. Most companies in preparing their annual budgets make provisions for bad debts. Companies make an estimate of bad debt that may be incurred within the current time period. This estimate is usually based on past records and used in the process to estimate the overall earnings. A banks profit primarily, is earned from the interest on loans, credit cards and bank charges from their customers. If a customer falls into debt with a bank, the interest paid on the amount owed and charges earn the bank some money, therefore, from the foregoing example, it seems to be in the bank's interest to have customers whose debts eventually end up bad. An unfortunate deception!

Among other things, this study would attempt to unveil the the impact of changes in macroeconomic variables on bad debts in financial institutions, specifically, in savings and loans institutions, using Garden City Savings and Loans Limited as a case.

1.2 Statement of Problem

Bad debts are by far the most common cause of bank failure. In recent years, financial institutions have suffered very large losses due to non-repayment of loans, or because of

provisions against non-repayments. The rising volume and sizes of these losses pose serious threat to financial stability. In Nigeria for instance, five banks' executives were arrested for rising bad debt in their respective banks. This problem posed serious threat to the whole financial sector of the country. Bad debt is a canker that financial institutions try to avoid. Bad debt arises when loans granted is not paid back on schedule. Therefore, from the lay man's point of view, the easiest way to reduce bad debt is to reduce the amount of loans granted. This then presents a paradox. The main function of financial institutions is to serve as an intermediary between surplus units and deficit units. The institutions take deposits from surplus units (savers) and lent to deficit units (borrowers). Reducing the loans given out would directly affect their profit levels and threaten their sustainability. The task facing the management of financial institutions is how to balance their quest to increase profit in order to continue operations and how to reduce the incidence of bad debt.

This study would provide a coherent insight into the issue of loan loss provisions by savings and loans institutions in Ghana with special reference to Garden City Savings and loans limited, Kumasi. The study would examine the issue from a number or perspectives: accounting, regulatory, taxation, finance and economics; and demonstrate that there are wide national differences in the accounting and management of bank losses. These inconsistencies lead to competitive distortions, as well as supervisory problems and potential macroeconomic instability. Among other things, the study would attempt to find answers to the following questions:

- How are the trends in loans and bad debts at GCSL?

- What loan portfolio is highly prone to bad debt at GCSL?

- What are the impact of inflation, exchange rates and interest rates on bad debt at GCSL?

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- What are the policies put in place by GCSL to reduce the incidence of bad?

1.3   Objectives of the Study

The objective of this study is to investigate the causes of bad debts in financial institutions with the emphasis on savings and loans companies. Among other things, the following specific objectives are set for the study:

1. To establish and analyze the trend of bad debt of Garden City Savings and Loans Limited (GCSL) for the period 2000-2008.

2. To establish which sectors of bank lending portfolio are more prone to developing into bad debt.

3. To determine the impact of exchange rate, inflation and interest rate (macroeconomic volatility) on the incidence of bad debt.

4. To identify the various policies put in place by GCSL to reduce the incidence of bad debt

5. To make appropriate recommendations to credit/loans managers

1.4   Justification of the Study

Banks and financial institutions that offer credit facilities to individuals and business firms are grappling with the ways of minimizing the incidence of bad debts. Management of financial institutions has been trying by all means to reduce bad debts in their institutions. The relevance of this study stems from the fact that it seeks to bring to the fore the major causes of bad debts;

which would benefit the management of financial institutions. The recommendations that would be made at the end of the study would be of immense importance to financial institutions in their bid to manage the incidence of bad debts.

1.5 Hypotheses of the Study

The study will test the following hypotheses:

- ➤ Micro loans are less prone to bad debt than other loans

- ➤ There is a positive relationship between bad debt and interest rate charge on loans

- ➤ There is a positive relationship between bad debt and inflation

- ➤ Currency depreciation causes bad debt

1.6 Scope of the Study

This study is limited to critical analysis of bad debt portfolio of Garden City Savings and Loans Limited, a deposit taking non-bank financial institution based in Kumasi with five branches. The study covers a nine year period; 2000-2008. The study would employ quarterly data. The limited scope of the study would make possible an in-depth analysis of the causes of bad debts in savings and loans companies.

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1.7 Organization of the Study

This study would be organized into five chapters. Chapter one would provide the general introduction and background to the study. Chapter two focuses on the review of relevant literature on the subject of bad debt. Chapter three presents the methodology adopted for the study. Chapter four presents the results and major discussions and analysis. The final chapter, five, concludes the study with major findings and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1   Moral Hazard, Adverse Selection and Financial Fragility

Moral hazard (or adverse incentives) is a concept with relevance to a variety of principal agent relationships characterized by asymmetric information (Brownbridge, 1998). According to Mishkin and Eakins (1998), moral hazard arises after a transaction occurs; the lender runs the risk that the borrower will engage in activities that are undesirable from the lender's point of view because they make it less likely that the loan will be paid back. The moral hazard discussed in this paper concerns the adverse incentives on bank owners to act in ways which are contrary to the interests of the bank's creditors (mainly depositors or the government if it explicitly or implicitly insures deposits), by undertaking risky investment strategies (such as lending at high interest rates to high-risk borrowers) which, if unsuccessful, would jeopardize the solvency of the bank. Bank owners have incentives to undertake such strategies because, with limited liability, they bear only a portion of the downside risk but stand to gain, through higher profits, a large share of the upside risk. In contrast, the depositors (or the deposit insurers) gain little from the upside risk but bear most of the downside risk. The inability of depositors to adequately monitor bank owners, because of asymmetric information and free rider problems, allows the latter to adopt investment strategies which entail higher levels of risk (not fully compensated for by deposit rate risk premiums) than depositors would prefer.

Moral hazard on bank owners can be exacerbated by a number of factors. First, an increase in the interest rate may lead borrowers to choose investments with higher returns when successful but with lower probabilities of success (Stiglitz and Weiss, 1981): hence, a rise in deposit rates could induce banks to adopt more risky investment strategies. A rise in bank lending rates can have

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similar incentive effects on the bank's borrowers. Second, macroeconomic instability can also worsen adverse incentives, if it were to affect the variance of the profits of the bank's borrowers, especially when there is covariance between borrowers' profits (e.g. if a large share of borrowers are in the same industry) or if loan portfolios are not well diversified among individual borrowers (McKinnon,1988). Third, the expectation that the government will bail out a distressed bank may weaken incentives on bank owners to manage their asset portfolio prudently and incentives on depositors to monitor banks and choose only banks with a reputation for prudent management. Deposit insurance also reduces incentives for depositors to monitor banks.

Fourth, moral hazard is inversely related to bank capital. According to Brownbridge (1998), the owners of poorly capitalized banks have little of their own money to lose from risky investment strategies. By implication, financial distress in the bank itself worsens moral hazard, because, as the value of the bank's capital falls, the incentives on its owners to pursue strategies which might preserve its solvency are reduced (Berger et al., 1995,). For similar reasons, intensified competition in banking markets can also encourage moral hazard, by reducing the franchise value of banks: the present value of a bank's future profits (Caprio and Summers, 1993; Demetz et al., 1997).

Moral hazard becomes even more acute when the bank lends to projects connected to its own directors or managers (insider lending). In such cases the incentives for imprudent (and fraudulent) bank management are greatly increased in that all of the profits arising from the project are internalized (in the case of loans to unconnected borrowers the project returns are split between lender and borrower), whereas that part of the losses borne by depositors or taxpayers are externalized. Not surprisingly, insider lending is a major cause of bank failure around the world (Caprio, 1997,). Moral hazard can be constrained by strict regulation and

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prompt action to close banks as soon as they become insolvent, but regulatory authorities are often pressured to exercise "forbearance": i.e. delay in enforcing regulations or closing insolvent banks (Garcia, 1996,).

Informational asymmetries can also affect the financial soundness of a bank through the adverse selection of its borrowers. Adverse selection is an asymmetric information problem that occurs before the transaction occurs; potential bad credit risks are the ones who most actively seek out loans (Mishkin and Eakins, 1998). Thus the parties who are the most likely to produce an undesirable outcome are most likely to want to engage in the transaction. Higher lending rates and a greater volatility in expected rates of return to borrower's projects can lead to a decline in the average quality (i.e. creditworthiness) of the pool of loan applicants willing to borrow from the bank. The more creditworthy applicants are driven out of the market by higher lending rates. A prudently managed bank would therefore be wary of raising real lending rates too high because of the likely adverse impact on loan quality. Instead it would ration credit (Stiglitz and Weiss, 1981). But if it has to pay above market interest rates to mobilize funds (because, for example, it is perceived as a poor credit risk), the bank's scope for not raising lending rates may be limited without cutting margins to levels insufficient to generate profits. The bank may be trapped in a cycle of high deposit and high lending rates which lead to high loan default rates, which in turn further raises deposit rates through its impact on the perceived soundness of the bank.

To a much greater extent than the established foreign banks, the local banks have been vulnerable to adverse incentive and selection problems. This is partly because they have operated in segments of the credit markets where these problems have been at their most acute (i.e. at the bottom end of the market, which contains the least creditworthy borrowers, often with limited, if

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any, collateral), and partly because of deficiencies in the institutional mechanisms for constraining adverse selection and moral hazard (banks are under-capitalized and lack adequate expertise, supervisory systems are weak, etc.). Moreover, some features of the local banks, notably close links with politicians, have exacerbated problems of moral hazard.

2.2   The Causes of Bad Debt in Financial Institutions

Financial distress has afflicted numerous local banks, many of which have been closed down by the regulatory authorities or have been restructured under their supervision. In Kenya two local banks and 10 NBFIs were closed or taken over between 1984 and 1989. A further five local banks and 10 NBFIs were taken over in 1993/94, and two more local banks in 1996. In Nigeria four local banks were put into liquidation in 1994 and another had its license suspended, while in 1995 a further 13 local banks were taken over by the Central Bank of Nigeria (CBN). Many more local banks were distressed and subject to some form of "holding action" imposed by the CBN and Nigeria Deposit Insurance Corporation (NDIC) in 1995. The Bank of Zambia (BOZ) closed three local banks in 1995, including the local subsidiary of Meridien BIAO, a bank which had been founded in Zambia in the 1980s and had expanded into an international bank with subsidiaries in many African countries. Another Zambian local bank was closed in 1991, but was subsequently restructured and re-opened.

The Bank of Uganda (BOU) closed down a small local bank in 1994 and took over two more local banks for restructuring in 1995. Failed local banks accounted for as much as 23 per cent of total commercial bank assets in Zambia. In Kenya in 1993/94 around 11 per cent of the total assets of banks and NBFIs were held by the failed local banks, while in Nigeria and Uganda the failed local banks accounted for 8 per cent and 6 per cent respectively of bank assets.

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The cost of these bank failures is very difficult to estimate: much of the data is not in the public domain, while the eventual cost to depositors and/or taxpayers of most of the bank failures which occurred in the 1990s will depend upon how much of the failed banks' assets are eventually recovered by the liquidators. The costs are almost certain to be substantial. According to Brownbridge, a statement in the Kenyan parliament in October 1995 revealed that the Central Bank of Kenya (CBK) lost a total of KSh 10.2 billion (equivalent to 3.8 per cent of 1993 GDP) from frauds involving the "political banks" (Economist Intelligence Unit, 1995). The CBK had provided KSh 17.8 billion (equivalent to 6.6 per cent of GDP) in liquidity support to three of the failed banks in 1992/93 (Brownbridge, 1998). The provision of liquidity support to banks was the major cause of the loss of monetary control and the subsequent inflation during this period.

Most of the bank failures were caused by non-performing loans. Arrears affecting more than half the loan portfolio were typical of the failed banks. 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 (Brownbridge, 1998).

Insider lending

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 referred to above, 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.13 Insider loans accounted for 65 per cent of the total loans of the four local banks liquidated in Nigeria in 1995, virtually all of which was unrecoverable (NDIC, 1994).

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Almost half of the loan portfolio of one of the Ugandan local banks taken over by the BOU in 1995 had been extended to its directors and employees. 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.

The high incidence of insider lending among failed banks suggests that problems of moral hazard were especially acute in these banks. Several factors contributed to this. First, politicians were involved as shareholders and directors of some of the local banks. Political connections were used to obtain public-sector deposits: many of the failed banks, particularly in Kenya, relied heavily on wholesale deposits from a small number of parastatals. Because of political pressure, the parastatals which made these deposits are unlikely to have made a purely commercial judgment as to the safety of their deposits. Moreover, the availability of parastatal deposits reduced the need to mobilize funds from the public. Hence these banks faced little pressure from depositors to establish a reputation for safety. Political connections also facilitated access to bank licenses and were used in some cases to pressure bank regulators not to take action against banks when violations of the banking laws were discovered. All these factors reduced the constraints on imprudent bank management.

In addition, the banks' reliance on political connections meant that they were exposed to pressure to lend to the politicians themselves in return for the assistance given in obtaining deposits, licences, etc. Several of the largest insider loans made by failed banks in Kenya were to prominent politicians.

Second, most of the failed banks were undercapitalized, in part because the minimum capital requirements in force when they had been set up were very low. Owners had little of their own funds at risk should their bank fail, which created a large asymmetry in the potential risks and rewards of insider lending. Bank owners could invest the bank's deposits in their own high-risk projects, knowing that they would make large profits if their projects succeeded, but would lose little of their own money if they were not profitable. Of the 13 distressed local banks taken over by the CBN in 1995, all except one had paid-up share capital which barely exceeded the minimum required by law of N50 million and N40 million, for commercial and merchant banks respectively, at the end of 1994. The average paid-up share capital of the four commercial banks taken over by the CBN was N51 million compared with an average of N94 million for all 36 private-sector commercial banks, while the average paid-up share capital of the nine merchant banks taken over by the CBN was N52 million compared to an average of N68 million for all 48 private-sector merchant banks. The paid-up share capital of these 13 failed banks amounted to an average of only about 4 per cent of their total loans.

The third factor contributing to insider lending was the excessive concentration of ownership. In many of the failed banks, the majority of shares were held by one man or one family, while managers lacked sufficient independence from interference by owners in operational decisions. A more diversified ownership structure and a more independent management might have been expected to impose greater constraints on insider lending, because at least some of the directors would have stood to lose more than they gained from insider lending, while managers would not have wanted to risk their reputations and careers.

Lending to high-risk borrowers

The second major factor contributing to bank failure was lending, at high interest rates, to borrowers in 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. It was in part motivated by the high cost of mobilizing funds. Because they were perceived by depositors as being less safe than the established banks, local banks had to offer depositors higher deposit rates. They also had difficulty in attracting non-interest bearing current accounts because they could offer few advantages to current account holders which could not also be obtained from the established banks. Some of the local banks relied heavily on high-cost interbank borrowings from other banks and financial institutions, on which real interest rates of over 20 per cent were not uncommon.

The high cost of funds meant that the local banks had to generate high earnings from their assets; for example, by charging high lending rates, with consequences for the quality of their loan portfolios. The local banks almost inevitably suffered from the adverse selection of their borrowers, many of who had been rejected by the foreign banks (or would have been had they applied for a loan) because they did not meet the strict creditworthiness criteria demanded of them. Because they had to charge higher lending rates to compensate for the higher costs of funds, it was very difficult for the local banks to compete with the foreign banks for the "prime" borrowers (i.e. the most creditworthy borrowers). As a result, the credit markets were segmented, with many of the local banks operating in the most risky segment, serving borrowers prepared to pay high lending rates because they could access no alternative sources of credit. High-risk borrowers included other banks and NBFIs which were short of liquidity and prepared to pay above-market interest rates for interbank deposits and loans. In Nigeria some of the local banks

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were heavily exposed to finance houses which collapsed in large numbers in 1993, as well as to other local banks (Agusto, *et. al*, 1995) Consequently, bank distress had domino effects because of the extent to which local banks lent to each other Within the segments of the credit market served by the local banks, there were probably good quality (i e creditworthy) borrowers as well as poor quality risks But serving borrowers in this section of the market requires strong loan appraisal and monitoring systems, not least because informational imperfections are acute the quality of borrowers' financial accounts are often poor, many borrowers lack a track record of successful business, etc The problem for many of the failed banks was that they did not have adequate expertise to screen and monitor their borrowers, and therefore distinguish between good and bad risks (Brownbridge, 1998) In addition, credit procedures, such as the documentation of loans and loan securities and internal controls, were frequently very poor Managers and directors of these banks often lacked the necessary expertise and experience (Mamman and Oluyemi, 1994) Recruiting good staff was often difficult for the local banks because the established banks could usually offer the most talented bank officials better career prospects Moreover, the rapid growth in the number of banks in countries such as Nigeria outstripped the supply of experienced and qualified bank officials

Macroeconomic instability

The problems of poor loan quality faced by the local banks were compounded by macroeconomic instability Periods of high and very volatile inflation occurred in all four of the countries covered here During the 1990s, inflation reached in Zambia 191 per cent, in Kenya 46 per cent, in Nigeria 70 per cent, and in Uganda 230 per cent With interest rates liberalized (except in Nigeria), nominal lending rates were also high, with real rates fluctuating between

positive and negative levels, often in an unpredictable manner, because of the volatility of inflation (Collier, 1993,). Macroeconomic instability would have had two important consequences for the loan quality of the local banks. First, high inflation increases the volatility of business profits because of its unpredictability, and because it normally entails a high degree of variability in the rates of increase of the prices of the particular goods and services which make up the overall price index. The probability that firms will make losses rises, as does the probability that they will earn windfall profits (Harvey and Jenkins, 1994). This intensifies both adverse selection and adverse incentives for borrowers to take risks, and thus the probabilities of loan default.

The second consequence of high inflation is that it makes loan appraisal more difficult for the bank, because the viability of potential borrowers depends upon unpredictable developments in the overall rate of inflation, its individual components, exchange rates and interest rates. Moreover, asset prices are also likely to be highly volatile under such conditions. Hence, the future real value of loan security is also very uncertain.

Liquidity support and prudential regulation

Deposit insurance schemes were not crucial factors in contributing to moral hazard in the failed banks. Kenya and Nigeria have provided deposit insurance since the late 1980s, but only for deposits below a specified minimum amount. Many of the failed banks' deposits were not insured, because they were too large (as in the case of most of the institutional deposits) and/or because they were from sources not covered by the insurance scheme. But the willingness of the regulatory authorities to support distressed banks with loans, rather than close them down, was probably an important contributor to moral hazard. Many of the failed banks in Kenya, Uganda

and Zambia had been able to borrow heavily from their respective Central Banks for several months, and in some cases for more than a year, before they were closed.

The extent of imprudent management in the failed banks indicates that there were serious deficiencies in bank regulation and supervision. When many of the banks were set up in the 1980s or early 1990s, banking legislation was outdated and Central Bank supervision departments were seriously understaffed. In Kenya and Nigeria many banks avoided being inspected for long periods because the rapid expansion of banks in the second half of the 1980s overwhelmed supervisory capacities (Kariuki, 1993). Furthermore, political pressure was brought to bear on Central Banks to exercise regulatory forbearance. The Central Banks often lacked sufficient independence from the government to refuse liquidity support to politically connected banks and to strictly enforce the banking laws. In particular, for those banks with strong political connections, the expectation that regulators could be pressured to exercise forbearance must have seriously undermined discipline and incentives for prudent bank management.

2.3 Empirical Literature:

Over the last few years, the literature that examines bad debt has expanded in line with the interest afforded to understanding the factors responsible for financial vulnerability. This situation may be attributed to the fact that impaired assets plays a critical role in financial vulnerability as evidenced by the strong association between bad debt and banking/financial crises in Argentina, East Asia and Sub-Saharan African Countries during the 1990s and recently in Nigeria.

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Keeton and Morris (1987) present one of the earliest studies to examine the causes of loan losses. In the latter paper, the authors examined the losses by 2,470 insured commercial banks in the United States (US) over the 1979-85. Using bad debt net of charge-offs as the primary measure of loan losses Keeton and Morris (1987) shows that local economic conditions along with the poor performance of certain sectors explain the variation in loan losses recorded by the banks. The study also reports that commercial banks with greater risk appetite tend to record higher losses.

Several studies that followed the publication of Keeton and Morris (1987) have since proposed similar and other explanations for problem loans in the US. Sinkey and Greenwalt (1991), for instance, investigate the loan loss-experience of large commercial banks in the US; they argue that both internal and external factors explain the loan-loss rate (defined as net loan charge offs plus bad debt divided by total loans plus net charge-offs) of these banks. These authors find a significant positive relationship between the loan-loss rate and internal factors such as high interest rates, excessive lending, and volatile funds. Similar to the previous study, Sinkey and Greenwalt (1991) report that depressed regional economic conditions also explain the loss-rate of the commercial banks. The study employs a simple log-linear regression model and data of large commercial banks in the United States from 1984 to 1987.

Keeton (1999) uses data from 1982 to 1996 and a vector autoregression model to analyse the impact of credit growth and loan delinquencies in the US. It reports evidence of a strong relationship between credit growth and impaired assets. Specifically, Keeton (1999) shows that rapid credit growth, which was associated with lower credit standards, contributed to higher loan losses in certain states in the US. In this study loan delinquency was defined as loans which are overdue for more than 90 days or does not accrue interest.

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Studies that examined other financial systems also provide similar results to those in the US. For instance, Bercoff et al (2002) examine the fragility of the Argentinean Banking system over the 1993-1996 period; they argue that bad debt are affected by both bank specific factors and macroeconomic factors. To separate the impact of bank specific and macroeconomic factors, the authors employ survival analysis.

Using a dynamic model and a panel dataset covering the period 1985-1997 to investigate the determinants of problem loans of Spanish commercial and saving banks, Salas and Saurina (2002) reveal that real growth in GDP, rapid credit expansion, bank size, capital ratio and market power explain variation in bad debts. Furthermore, Jimenez and Saurina (2005) examine the Spanish banking sector from 1984 to 2003; they provide evidence that bad debts are determined by GDP growth, high real interest rates and lenient credit terms. This study attributes the latter to disaster myopia, herd behaviour and agency problems that may entice bank managers to lend excessively during boom periods.

Meanwhile, Rajan and Dhal (2003) utilise panel regression analysis to report that favourable macroeconomic conditions (measured by GDP growth) and financial factors such as maturity, cost and terms of credit, banks size, and credit orientation impact significantly on the bad debts of commercial banks in India.

Using a pseudo panel-based model for several Sub-Saharan African countries, Fofack (2005) finds evidence that economic growth, real exchange rate appreciation, the real interest rate, net interest margins, and inter-bank loans are significant determinants of bad debts in these countries. The author attributes the strong association between the macroeconomic factors and non-performing loans to the undiversified nature of some African economies.

More recently, Hu et al (2006) analyse the relationship between bad debts and ownership structure of commercial banks in Taiwan with a panel dataset covering the period 1996-1999. The study shows that banks with higher government ownership recorded lower non-performing loans. Hu et al (2006) also show that bank size is negatively related to bad debts while diversification may not be a determinant.

Based on our review of the literature it is clear that there is extensive international evidence which suggests that bad debts may be explained by both macroeconomic and bank specific factors.

CHAPTER THREE

PROFILE OF THE CASE STUDY COMPANY AND RESEARCH METHODOLOGY

3.0   Introduction

This chapter consists of two parts. The first part presents the profile of the case study company. The second part is devoted for the presentation of the research methodology and tools and skills of data analysis in detail.

3.1   Profile of the case study Company

3.1.1   Establishment

Garden City Savings & Loans Limited (GCSL) was incorporated as a private limited liability company under the Companies Code 1963 (Act 179) on 17th September. 1998. GCSL was licensed by the Bank of Ghana on 5th July, 1999 and authorized to carry out the business of non-banking financial institutions under the Financial Institutions (Non-Banking) Law 1993 (PNDCL 328). Having complied with the provisions of Sections 7 and 28 of the Companies Code, it commenced business on 9th August, 1999.

GCSL's registered main business premises are located in the Trust House at Bantama in Kumasi. It is the third Savings and Loans Company to be established in Kumasi and the seventh in Ghana. GCSL currently has five branches located at Adum, New Tafo, Tanoso and Bantama and Suame. The location of the company and its branches offer an atmosphere which is consistent with its mission of serving people in its catchment area. The institution has 256 employees, 146,300 depositors and 5,230 loan clients.

3.1.2 Corporate Objective

Micro and small enterprises play a key role in the development of Ghana's economy; however, a major obstacle to the growth of this sector is the lack of access to external financing. Thus, the creation of a lasting supply of credit for this client group is a way of promoting economic growth in Ghana.

Garden City Savings & Loans Limited was set up with the objective of providing financial services that are specifically tailored to the needs of such client groups thereby narrowing the gap that exists between the supply of and demand for financial services at the lower end of the market.

GCSL has the following main objectives among others:-

(i)   To provide financial services through savings mobilization and granting of credit/loans to individuals and small scale operators who cannot obtain such services from the existing banks.

(ii) To design and implement attractive financial products to suit the varied needs of customers both in the formal and informal sectors of the Ghanaian economy

(iii) To reach out to target clients in its catchment area.

(iv) To provide business advisory services to micro, small and medium scale entrepreneurs through training and counseling.

3.1.3 Vision

It is the vision of GCSL to maintain a high public image as the leading savings and Loans Company in Ghana.

3.1.4 Mission Statement

The mission of the company is to develop demand-driven financial products and services and make them easily accessible to its target market through:

➢ Comprehensive understanding of the market;

➢ Application of State of-the-art technology and systems;

➢ The use of innovative, flexibility and enthusiasm in meeting the needs of la changing environment and

➢ Presence and accessibility to products and services.

In this regard, the company is engaged in the following activities:-

• Provision of excellent and efficient customer service and a wide range of financial products and services that will ensure profitability and sustainability;

• Focusing on lending to individuals, micro, small and medium-sized enterprises and thereby contribute to the socio-economic development of its catchment area.

• Investment in the training of staff in order to create an enjoyable and efficient working atmosphere and;

- Provision of the friendliest and most competent services possible for customers.

3.1.5 Products and Services

Garden City Savings & Loans Ltd primarily offers four main products namely; Deposit mobilization, Consumer (personal) credit, Micro enterprise credit and Commercial credit.

The deposit services which primarily differ in terms of liquidity and return include:

- Regular Savings Deposits

- Time/Fixed Deposits

- Susu Savings Deposits

- Group Savings / Compulsory Savings Deposits

In addition to savings deposits, the company provides demand deposit (Current Account) service.

On the credit side, GCSL offers various products which address the needs of certain target groups like micro, small and medium entrepreneurs co-operates solidarity groups, market vendors and salaried employees.

3.1.6 Loan Profile of GCSL:

Garden City Savings and Loans runs several loans for its customers. Some of these are current Account Loans for current account customers, Salary Loans, Employee Loans, Special Susu Loans, "Yemma Daakye" Loans, "Boafo Yenna" Loans, Personal Loans, Corporate Loans,

Group Loans and Prestige Susu Loans. However the most common loans are Special Susu, Personal, Corporate Loans and Personal Loans. For the purpose of this analysis, we will group all the loan portfolios into four groups. These are Corporate Loans, Personal Loans, employee Loans and Micro Loans made up of Special Susu loans and all the other loans listed above. For a client to qualify for client to qualify for a Micro Loans, the client is supposed to open Susu account and make a daily contribution for three months. After the three months, a saving account is opened in the clients name and the total amount contributed in the Susu account is moved into the saving account to serve as collateral for the loan. The client is now given a loan which is equivalent to at least double the amount contributed and the client is given six months to pay the principal and the interest. After payments, if the client wants another loan, he/she is immediately given based on the amount in the saving account. For personal and corporate loans, a customer is supposed to operate a current account for a minimum of six months after which critical assessment of the account turn-over is done. Based on the performance of the account, a loan is either given or denied. A client who is given a loan is given a minimum of one year to repay. Employee loans are given to salaried workers who receive their month-end salaries through the bank. They include teachers, nurses, pastors, etc.
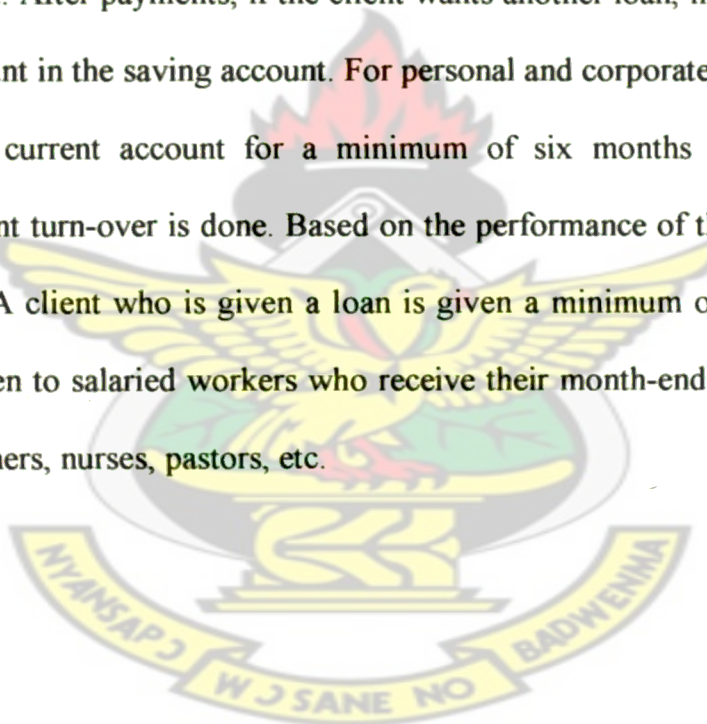
3.2   Methodology

The method of study is dived into two parts. The first part deals with the primary data while the second part deals with the secondary data

3.2.0 Primary Data Collection and Analysis

3.2.1 Population

The population for this study includes all the customers of Garden City Savings and Loans Limited, Kumasi as well as all the staff of this institution from all the branches. The researcher deemed it quite expedient to choose Garden City Savings and Loans due to the fact that it is among the most vibrant deposit taking non-bank financial institutions in Ghana in General and Kumasi in particular.

3.1.2 Sample size and Sampling Technique

Due to budgetary constraints as well as the virtual impracticability of surveying the entire population, samples were taken for this study. The stratified simple random sampling technique was applied to select the respondents for the customers. However, the sample of officials of the case study company were purposive and judgmental. The total sample for this study were 216, made up of 200 borrowers and 16 officials.

3.2.3 Data Collection

The study relied on primary and secondary data. As pointed out already, the primary data used for the study were taken from the samples of borrowers and officials of the case study institution. The instruments for data collection include structured questionnaires to selected customers of the Case Study Company and face to face interviews with carefully selected officials of the institution understudy. The questionnaires would be self- administered to minimize errors in the data obtained. The secondary data for the study would be taken from audited financial statements of Garden City Savings and Loans Limited for 10 years spanning 1999. Data on inflation and exchange rate would be taken from the data base of the Bank of Ghana and Ghana Statistical Service, whilst the interest rate that would be used for this study would the institution's annual lending rate.

3.2.4 Designing the Questionnaire

Saunders, *et al* (2007), argue that the validity and reliability of the data the researcher collects and the response rate he achieves depend, to a large extent on the design of questions, the structure of his questionnaire and the rigour of his pilot testing. Zikmund (1994), corroborated by Warwick and Lininger (1998), also maintain that the relevance and accuracy are the two basic criteria to be met if the questionnaire is to achieve the researcher's purpose. The wording of each question would therefore be given careful consideration to ensure that the responses are valid and reliable. The order and the flow of questions would be arranged in a logically consistent manner to both the researcher and the respondent. This would be achieved through the inclusion of filter questions which would identify those respondents from whom the question or some questions may not be applicable, so they could skip such questions.

The type of questions that would be asked would include both open-ended questions (where some problem or topic would be posed and the respondent asked to answer in his own words with complete freedom to respond to the best of their ability); close-ended or fixed-alternative questions (which consisted of a question or a statement and a list of specific, limited alternative responses from which the respondent select the appropriate option applicable to his case); simple dichotomy or dichotomous-alternative questions which required the respondent to choose one of two alternatives. These would mainly be simple YES or NO as well as checklist questions which also allowed the respondent to provide a multiple answers to a single question.

3.2.5 Data Analysis

The data obtained from the primary sources would be critically analyzed using graphs, charts, Tools for data analysis include Microsoft Excel and Statistical Package for Social Sciences (SPSS),

3.3. Secondary Data Collection and Analysis

3.3.1 Sources of Data

The secondary data were collected from the annual and quarterly data from the financial books of GCSL. They included loans granted, bad debt reported, and the profit levels of the company.

3.3.3 Analysis of Secondary Data

Ordinary least square regression technique was be employed to analyze the effect of loans granted, past levels of loans and past levels of bad debts on current levels of bad debt. To reduce the huge values associated with financial data, we employ log-linear forms of the models. Four models would be estimated. It should be noted that these models are exploratory and are not based on any existing literature. The models to be estimated are stated below:

Model 1 $\qquad lnBD = \beta_0 + \beta_1 lnLOANS + e_t$

Model 2 $\qquad lnBD = \beta_0 + \beta_1 lnLOANS + \beta_2 lnBD_{t-1} + e_t$

Model 3 $\qquad lnBD = \beta_0 + \beta_1 lnLOANS + \beta_2 lnBD_{t-1} + \beta_3 lnLOANS_{t-1} + e_t$

Model 4 $\qquad lnBD = \beta_0 + \beta_1 lnBD_{t-1} + \beta_2 lnLOANS_{t-1} + e_t$

Where BD→ Current level of Bad Debt, LOANS→ Current levels of loans

BD_{t-1}→ One year lags of bad debt and $LOANS_{t-1}$→ one year lag of loans.

In model 1 we expect β_1 to have a positive sign since more loans means more bad debts all things being equal. In model two we expect past level of bad debt to have positive impact on current levels of bad as the interest charged on these debts add up to these debt increasing their value. Thus the coefficient of β_2 is expected to be positive. As stated before, the coefficient of current loans is expected to be positive. In model 3, the coefficient of past levels of loans is expected to be positive. This is because if past loans are unpaid, they are regarded as bad debts and they increase the levels of existing bad debt. Therefore, the more past loans we have, the more bad debts expected all things being equal. In model 4, we regress bad debt on the past values of loans

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and bad debt alone. This is to examine whether past values of loans and bad debt alone could help explain changes in bad debt. As pointed out before, we expect both β_1 and β_2 to be positive.

To study the impact of macroeconomic variables on bad debt, the following log-linear model would be estimated:

$$lnBD = \beta_0 + \beta_1 lnER + \beta_2 lnINFL + \beta_3 lnINTR + \beta_4 \Delta GDP + e_t$$

Where ER=Exchange Rate, INFL=Inflation rate, ΔGDP = growth of GDP and INTR=Interest rate proxied by the 90-day Treasury bill rate. We expect both β_2 and β_3 to be positive while β_1 and β_4 expected to possess a negative sign. The coefficient of interest rate is expected to be zero because high interest rates means high risk of lending and hence high default rates. The literature also provides evidence of a positive relationship between the inflation rate and non-performing loans. Inflation is responsible for the rapid erosion of commercial banks' equity and consequently higher credit risk in the banking sectors. It should be noted, that we were unable to take the log of ΔGDP since there were negative growth rates during our sample period.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS OF RESULTS

4.0   Introduction

The results from data collected and collated are analyzed in this chapter. The analysis is divided into two parts, part one looks at the analysis of secondary data while part two looks at the analysis of the primary data obtained through the questionnaires administered and the informal interviews conducted.

4.1 Analyses of Secondary Data

4.1.1   Trend Analysis of Loans and Advances Granted

A critical analysis of the data on loans and advances granted show a general upward trend as shown by the quarterly trend graph below (Figure 1) with a fitted least squares line. Loans and advances are fitted against a time trend which reveals a significant positive time trend impact on loans. Another interesting observation of the loan trend indicate a rather fluctuating pattern around the trend with peaks around the third quarter of 2003Q1 through to 2008Q3 and troughs around the first quarters of the same period. The results are consistent with normal business cycle typical of Ghana. Normally, during the first quarter of the year, business activities are slow and hence demand for loans and advances are low. It must be emphasized that in 2003, new loan types and new branches were introduced and this explains the sharp increase in loans and advances from 2003.

Figure 1: Trends in Loans Granted (2000Q1-2008Q4)

$y = 38981x + 90166$
$R^2 = 0.674$
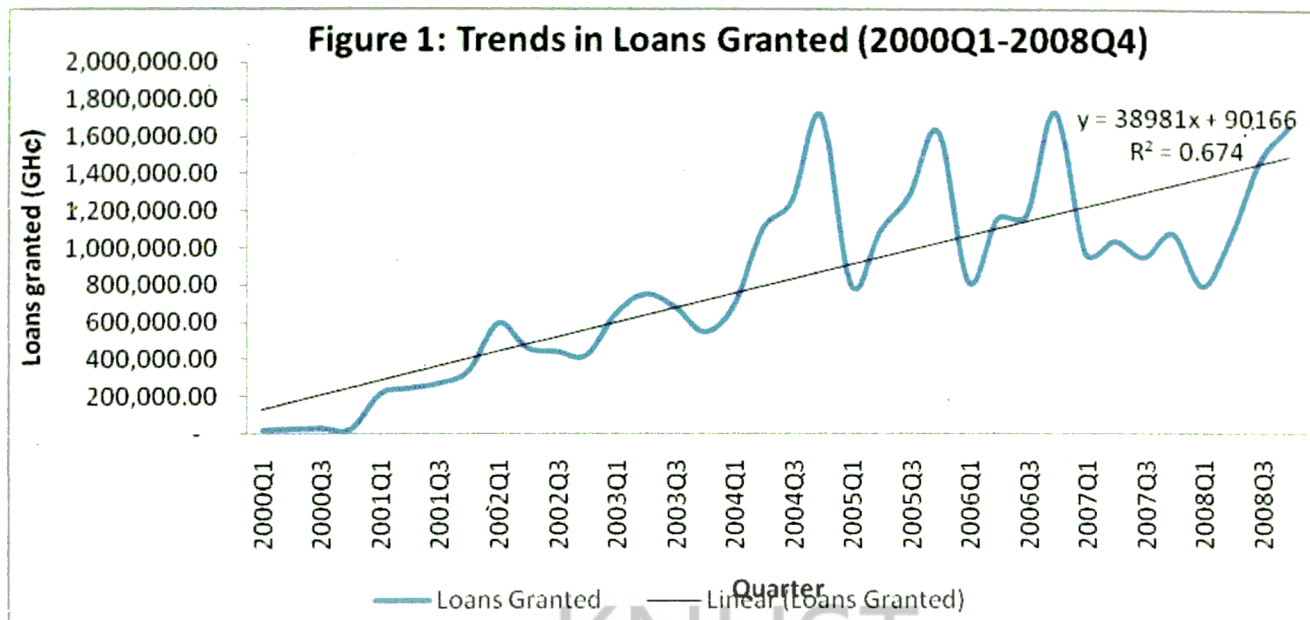
From 2, it can be inferred that loans and advances granted by GCSL to its clients have been increasing in nominal terms steadily over the period under investigation. Between 2000 and 2001, the amount of loans and advances granted has increased from GH¢ 117,103.50 to GH¢1,078,100.00, representing over 820%. The growth rate in loans and advances however declined steadily from the figure recorded 2000 and 2001 to 37% between 2002 and 2003. The trend plateaued between 2004 and 2006 before decelerating. Generally, however, there has been a gradual decline in growth terms of loans and advances granted since 2001 (see Figure 2 and table 1) with rates falling from 78% in 2002 to 23% in 2008. The lowest growth rates in loans and advances were recorded in 2005 (0.84%) and 2006 (1.80%) respectively. It is interesting to note that loans and advances even recorded a negative growth in 2007 of 17% (i.e. GH¢4,881,506 in 2006 to GH¢4038344 in 2007) before picking up to 23.5% in 2008 (i.e. GH¢ 4,985,899). There, we can conclude that though there has been nominal increase in the amount of loans and advances granted, the actual growth has not been encouraging as could be inferred from figure 2.

Figure 2: Trends in Total Annual Loans Granted and Growth (%)

Figure 3: Types of Loans and Advances Granted

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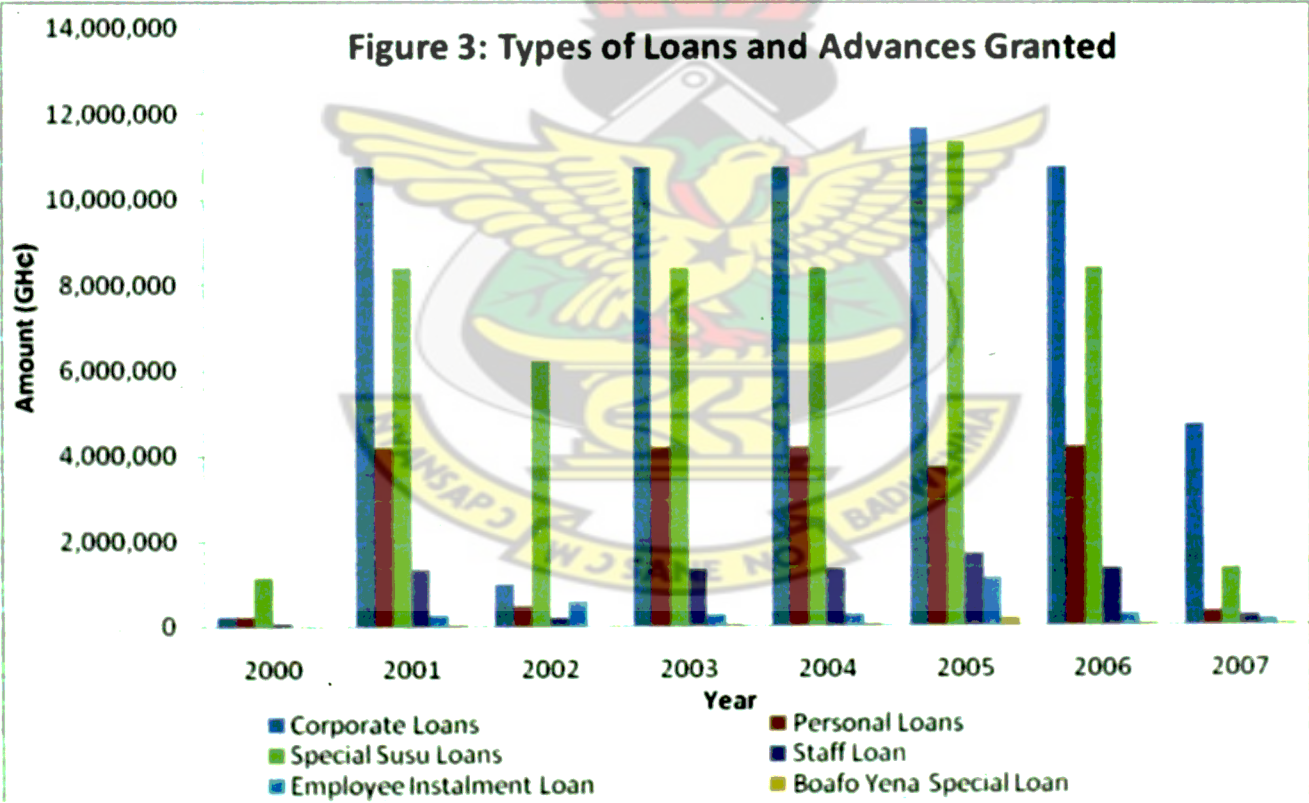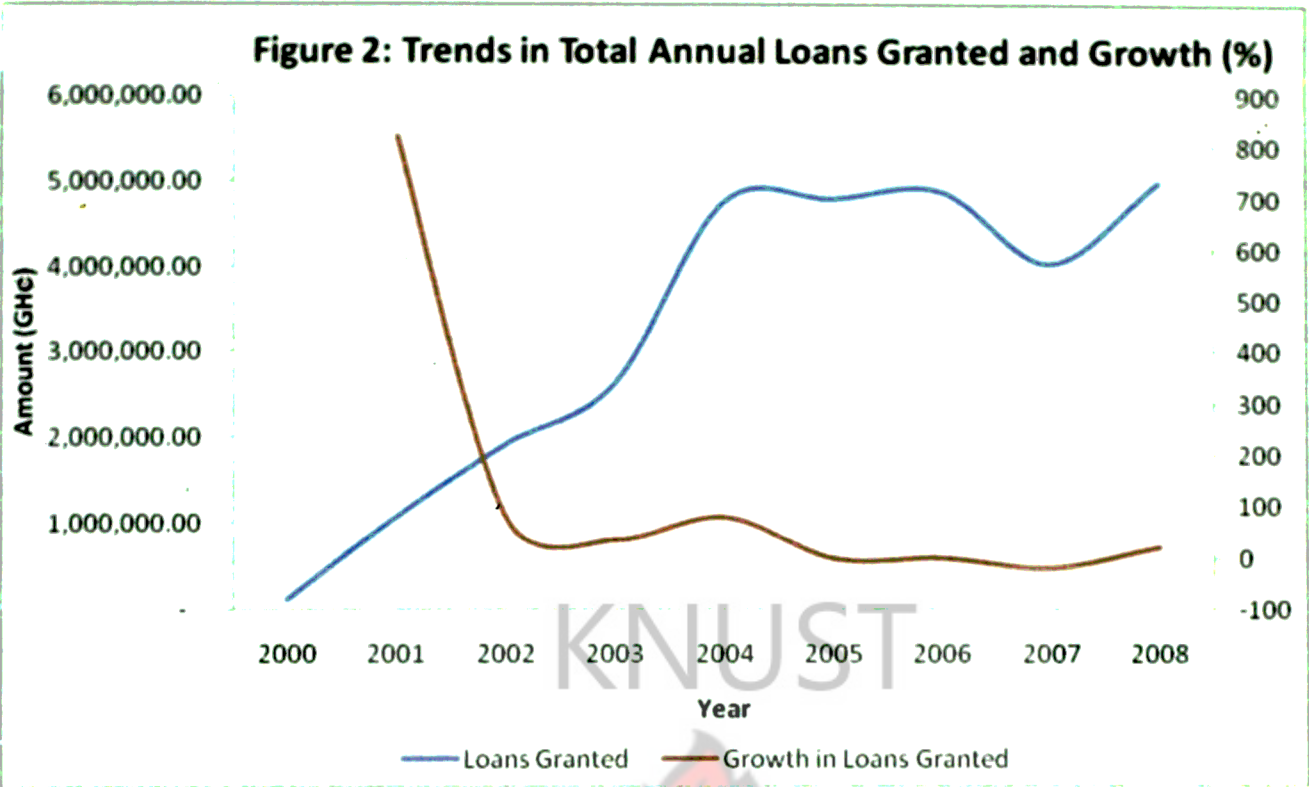
Garden City Savings and Loans Limited has operated different categories of loan schemes over the years. These are Corporate Loans, Corporate Advances, Personal Loans, Pre Deposit, Special Susu Loans, "Daakye" Loans (i.e. Future Loans), Staff Loan, "Boafo Yena" Special Loan and Employee Installment Loan. As depicted in Figure 3, most of the loans have gone into the Corporate, Special Susu and Personal Loans categories. For all the years under review, the corporate sector loans have the highest portion of all the loans granted. Thus in terms of the volume of loans granted, the corporate loan is far more than any other category thus making it an important clientele base. It should however be pointed out that the number of Special Susu Loan customers far exceed the number of corporate loan customers. The volume of loans granted to the corporate clients are normally more than those granted to the other clients. The next most important loan portfolio is the special Susu loan which is the very foundation of the institution's setup. Thus mobilizing resources from the grassroots and lending it to the corporate, SME and Micro sectors. Even though corporate loans have usually outstripped the Special Susu Loan scheme, this was not the case in 2005. Indeed, the pair was almost at par in performance in the 2005 financial year.

4.1.2 Trend Analysis of Bad Debt

Bad debt, similar to loans and advances granted, show a general upward trend over the period 2000Q1-2008Q4 with actual data fluctuating around the trend line. Time trend explains approximately 76% of the changes in bad debt over the period (see Figure 4). Given the high R^2 means that the trend line could be used for analysis. The trend line in figure 4 shows that bad debt has risen above its normal trend growth over the period under review. To show the long

term growth trend in bad debt, we employ the Hodrick-Prescott filtered trend analysis shown in figure 5.

Figure 4: Trends in Bad Debt (2000Q1-2008Q4)
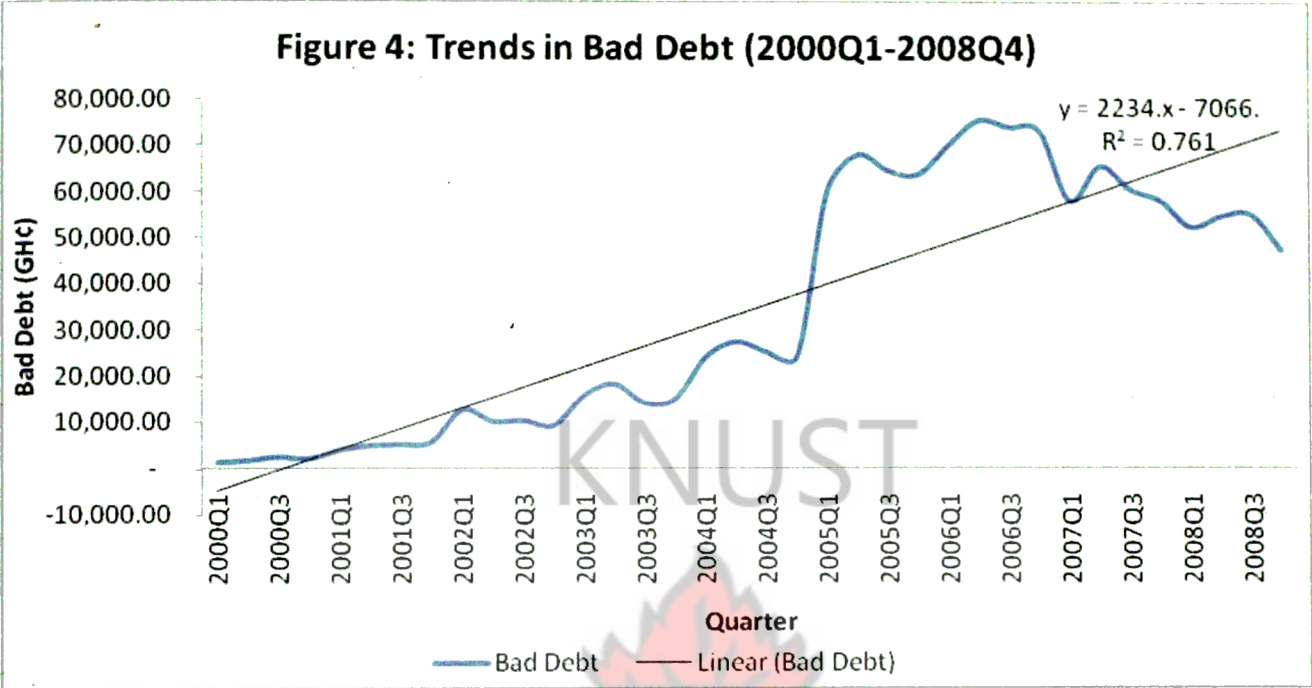
The Hodrick-Prescott filtered trend of bad debt over the same period traces a general accelerating long-term trend. Available annual data over the period 2000-2008 shows that bad debt increased from GH¢7,360 to GH¢209,294 representing 2,700% growth over the nine year period. It increased from GH¢7,360 in 2000 to GH¢19, 365 in 2001 (163%) and continued the trend till it peaked at GH¢292,890 before it began falling. In 2005, GCSL recorded yet another huge growth in bad debt of over 150% from the 2004 figure of GH¢100, 752 to GH¢256,511 for 2005 respectively (see Figure 6). The highest bad debt over the entire period was recorded in 2006 (GH¢292,890). Data analysed generally imply that bad debt is a real challenge to the profitability prospects of GCSL Limited. It is important to point out that debt recovery policy put in place by the company since 2007 has yielded positive results. However, Figures 5 clearly shows that there

is a decline in the growth of bad debt since 2007. The figures clearly show that bad debts are real problem in GCSL and there is the need to strengthen the policies put in place to sustain the current achievement in terms of loans recovery.

Figure 5: Trends in Total Annual Bad Debt and Growth (%)
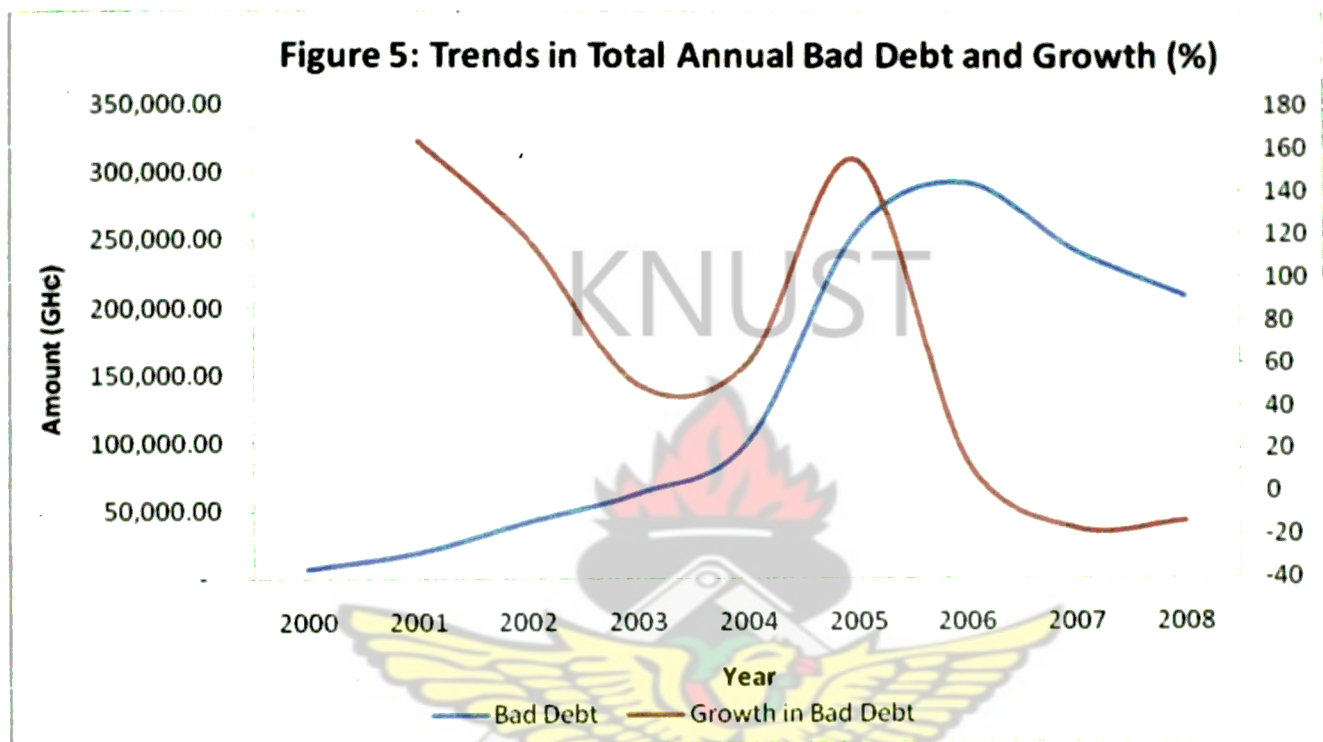
To determine the relationship between loans and bad debt we employ the techniques of ratios. In ratio terms, bad debt to loans remained relatively stable between 2001Q1 and 2003Q3 but peaked in 2000Q3, 2004Q4, 2005Q1, 2006Q2 and 2008Q1. Significant troughs were also recorded in 2004Q4, 2005Q4, 2006Q4 and 2007Q4. The ratio started falling sharply from the first quarter of 2008 (see Figure 7).

Figure 6: Trends in Bad Debt to Loans Ratio
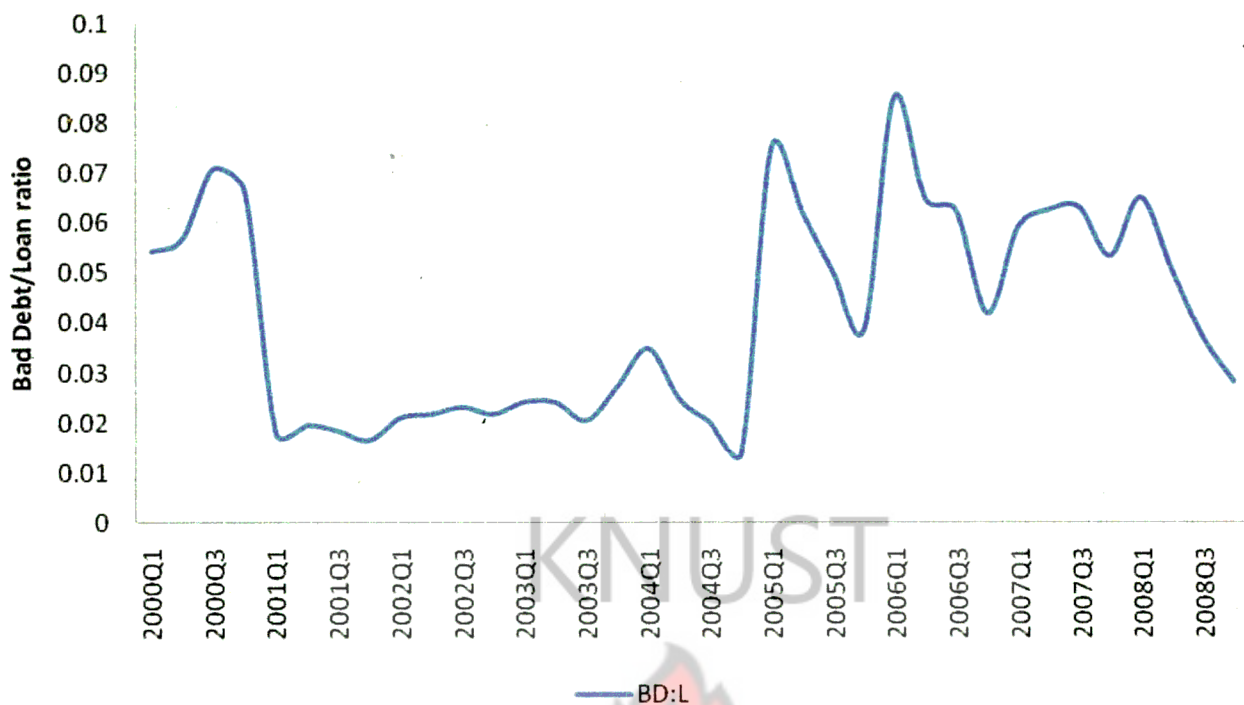
Looking at the trend in the ratio of bad debt to loans, it shows similar trend with that of loans as well as that of bad debt. This means that the growth in loans and bad debt are similar.

4.1.3 Trends in Profitability

Profit levels in GCSL have generally been impressive. Figure 8 below displays the annual trend in net profit before tax, net profit after tax and retained profit over the period 2000-2007. Profit has been following an upward path over the period under review.

Figure 7: Trends in Annual Profits of GCSL Limited
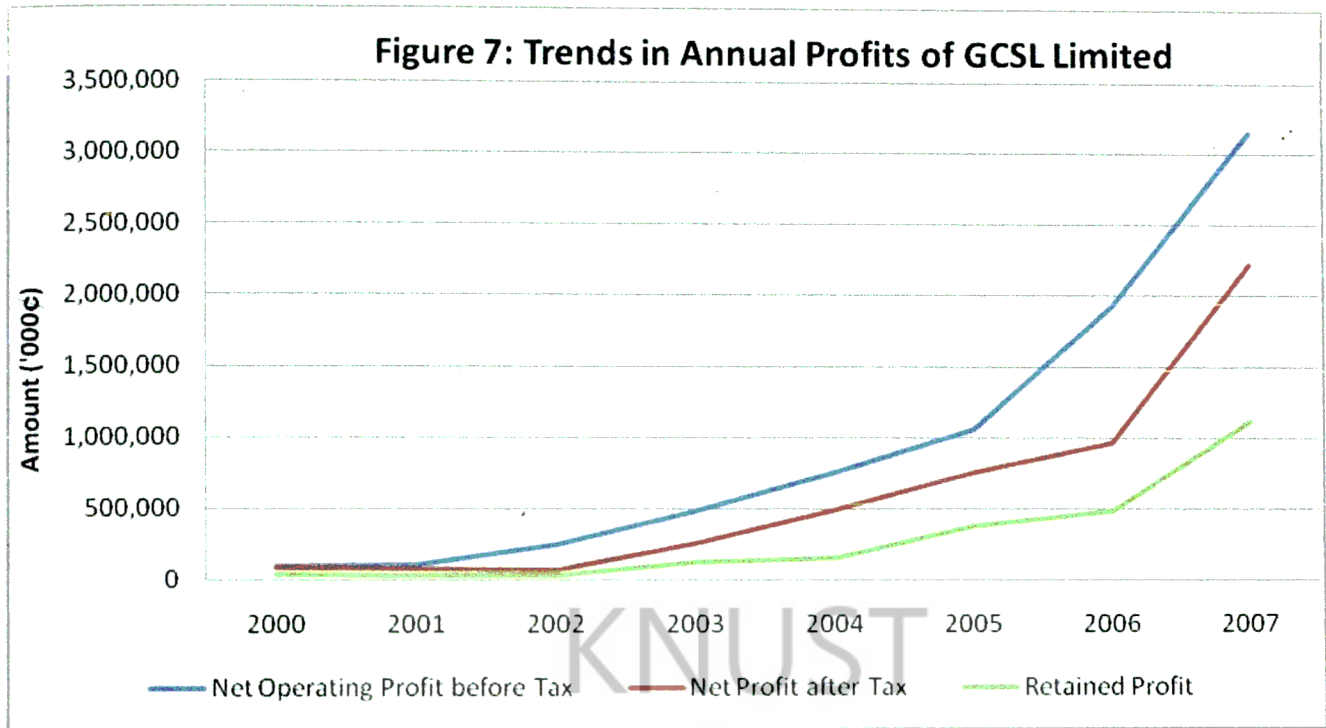
4.1.4: Types of Loans Prone to Bad Debt

To examine the type of loan portfolio prone to bad debt, we calculate the percentage of each loan portfolio that goes bad. This is shown in Figure 9 below. The figure shows that with the exception of the year 2000 that saw higher percentage of Micro Loan going bad, Personal loan had the highest of it going bad. In other words, Personal loan is the highest prone to bad debt. For instance, from 2005 and 2007, averages of 36% of all personal loans granted were reported to have gone bad. The good news is that Micro Loans, which is the backbone of the company, has the least percentage going bad. This may be because stringent methods are put in place in the recovery of Micro Loans compared to that of personal loans. Another reason for the high bad dent recorded for the personal loans and corporate loans portfolios lies in the differences in the repayment periods. Clients who take micro loans are given a maximum of six months and are also told the amount they have to contribute daily to meet the deadline for the repayment. The

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surprising thing discovered however was that the company is still giving high personal and corporate loans despite the risk involved and the slow recovery rate involve.

Table 4.1 Percentage of Loan Portfolios Gone Bad

Year	% of Corporate Loans gone bad (%CBD)	% of Personal Loans gone bad (% PBD)	% of Employee Loans gone bad (% EBD)	% of Micro Loans gone bad (% MBD)
2000	0.00	1.06	0.00	7.09
2001	4.58	1.49	0.99	0.64
2002	3.96	5.74	1.55	1.09
2003	9.35	6.09	2.51	1.05
2004	4.52	10.39	3.42	0.78
2005	10.01	35.66	8.86	1.61
2006	14.57	36.99	5.58	0.93
2007	29.19	37.91	12.20	1.49
2008	25.26	15.79	0.82	1.77
Total	101.43	151.12	35.94	16.46
Average	11.27	16.79	3.99	1.83

Figure 8: Proportion of Loan Porfolio Going Bad
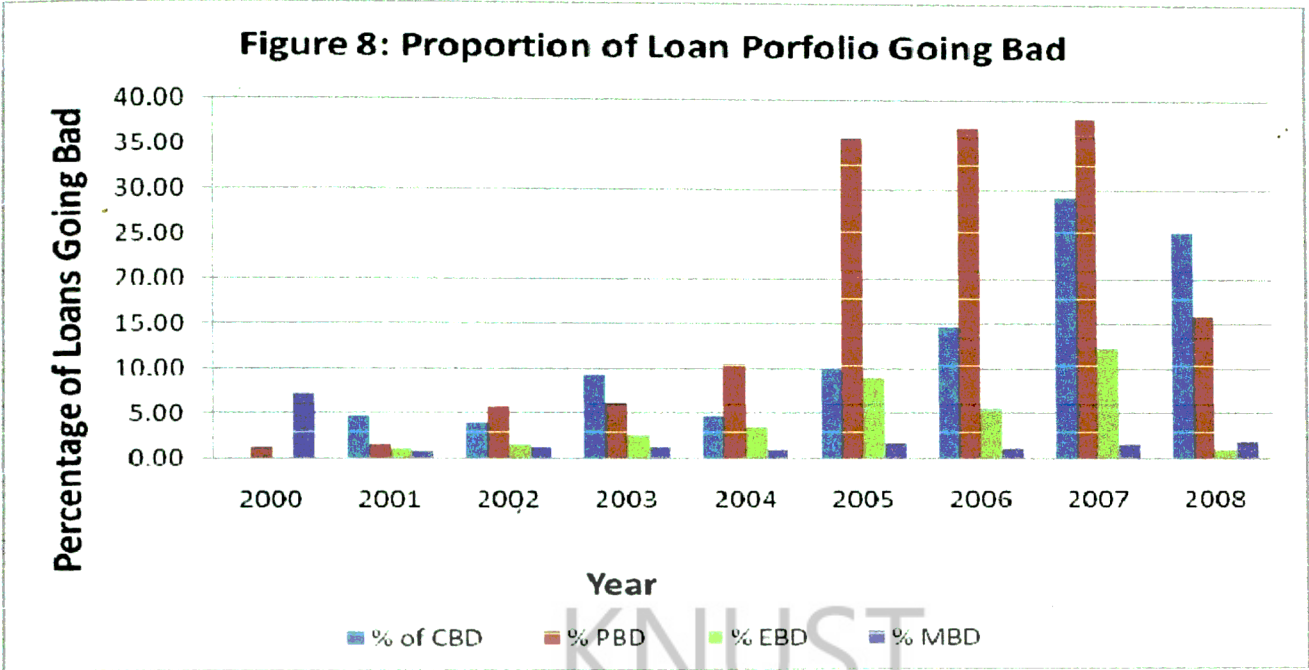
The results indicate that on the average, 17% of all Personal Loans granted by GCSL have the probability of going bad. Corporate loan has a probability of 11%. This implies that Corporate Loan is the second riskiest loan portfolio at GCSL. This is very alarming giving the fact that GCSL is Microfinance institution with relatively small capital and profit levels. The probability figure for employee loan is 4%. This means that about 4% of all employee loans granted by GCSL are likely to go bad. For Micro loans, the figure is 1.8%. The results are shown in Table 4.1 above and Figure 10 below:

Figure 9: Probability of a Loan Going Bad
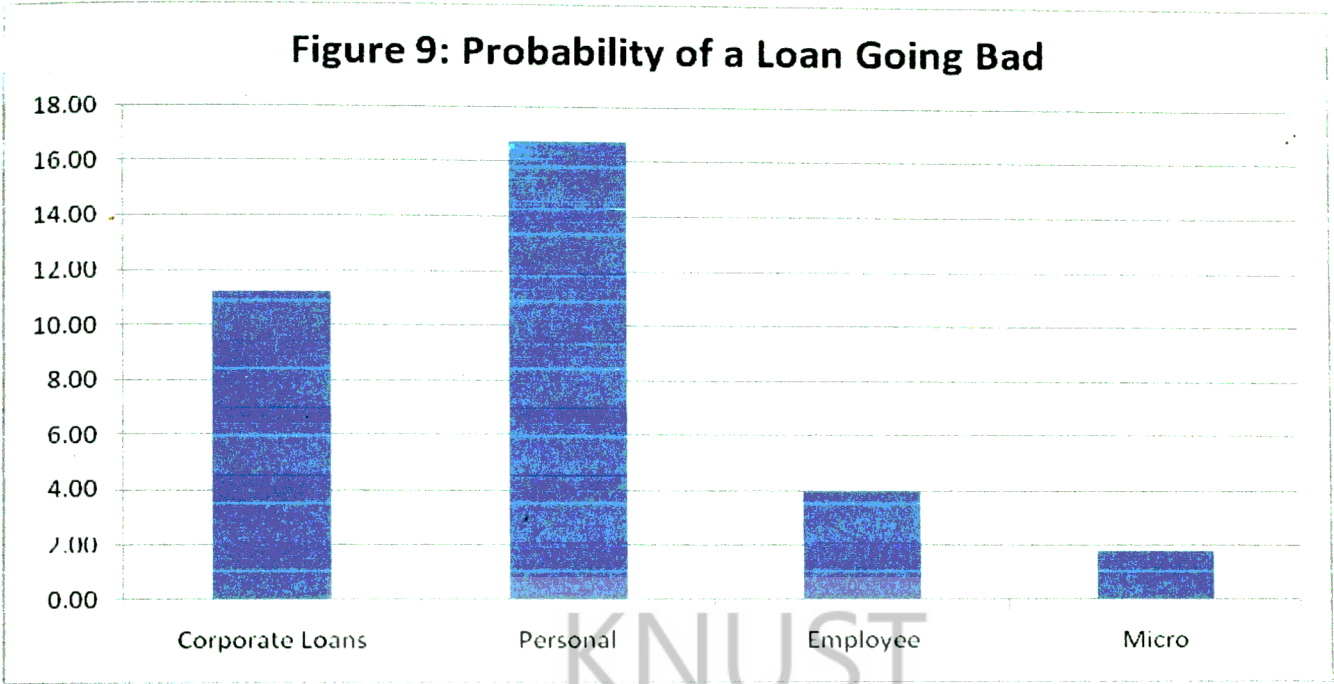
4.1.5 Regression Analysis

Results from a simple bad debt model estimated via log linear regression model are shown in Table 4.2 below. This regression, as pointed out is exploratory to determine the effect of bank specific effects on bad debt. Four models were estimated to explain bad debt at GCLS Ltd over the period 2000-2008 using quarterly data on bad debt and loans granted. In three of the four models (i.e. Model 1, Model 2 and Model 3) estimated, current loans granted to clients positively and significantly explain bad debt. Thus the higher the loans granted, the higher the level or rate of payment default, all things being equal. In other words, the high levels of bad debt experienced by GCSL could be attributed to loans granted. As pointed out in section 4.4 and table 4.1, the loan portfolio prone to bad debt is Personal loans and Corporate Loans. Thus one of the surest ways of reducing bad debt is to ensure that proper mechanisms and strategies are put up to ensure that recoveries are effective in these two troubled areas. Also, past bad debt significantly impacts positively effect on bad debt as indicated in Model 2, Model 3 and Model

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4. The lagged coefficient of bad debt in all three models is statistically significant at the 5% level. This means that past levels of bad debt can help explain current levels of bad debt. This may be due to the fact that outstanding levels of bad debts attract higher interest and added up to the existing debt to exacerbate the situation. Thus management of the Bank can discern current default trends on the basis of historical bad debt data and make informed decisions to manage its persistence. In conclusion, we can say that the important determinants of bad debt are loans granted by GCSL and past levels of bad debt. Since greater proportion of the bank's revenue comes from interest income, reducing loans granted as a way of reducing bad debt implies reduction in revenue for the company. Therefore the best way of managing the bad debt situation at GCSL is put in appropriate mechanisms to improve loans recoveries.
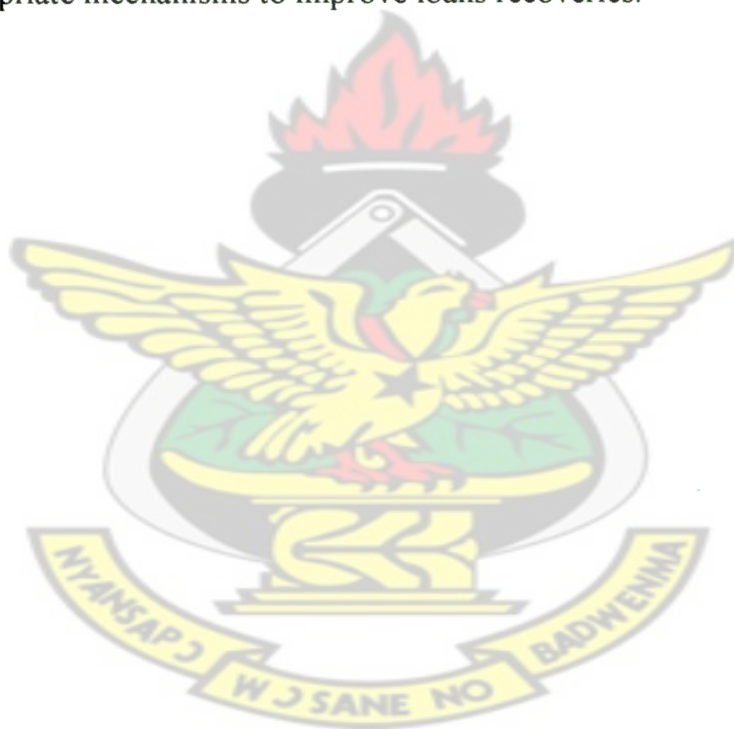
Table 4.2: OLS Estimates of Bad Debt Model

	Model 1	Model 2	Model 3	Model 4
Constant	-2.699**	0.02144	0.07915	0.6388
	(1.032)	(0.5920)	(0.6060)	(0.5461)
ln$Loans$	0.9539**	0.1622*	0.2059*	-
	(0.07775)	(0.08137)	(0.1106)	
lnBD_{t-1}	-	0.7899**	0.8142**	0.8472**
		(0.06902)	(0.08094)	(0.08196)
ln$Loans_{t-1}$	-	-	-0.06674	0.07394
			(0.1129)	(0.08709)
N	36	35	35	35
Adj. R^2	0.8103	0.9555	0.9546	0.9511

Standard errors in parentheses, Dependent variable: lnBD

* indicates significance at the 10 percent level

** indicates significance at the 5 percent level

The significant positive relationship between bad debt and loans is depicted in Figure 9 below. The scatter plot shows bad debt is explained positively by loans granted. The estimated

coefficient implies that if loans granted increases by say 1%, the level of bad debt will increase by 0.9539% all things being equal.

Figure 10 Scatter Plot Showing Bad Debt vs. Loans Granted

$$\ln BD = -2.699 + 0.9539 * \ln L$$
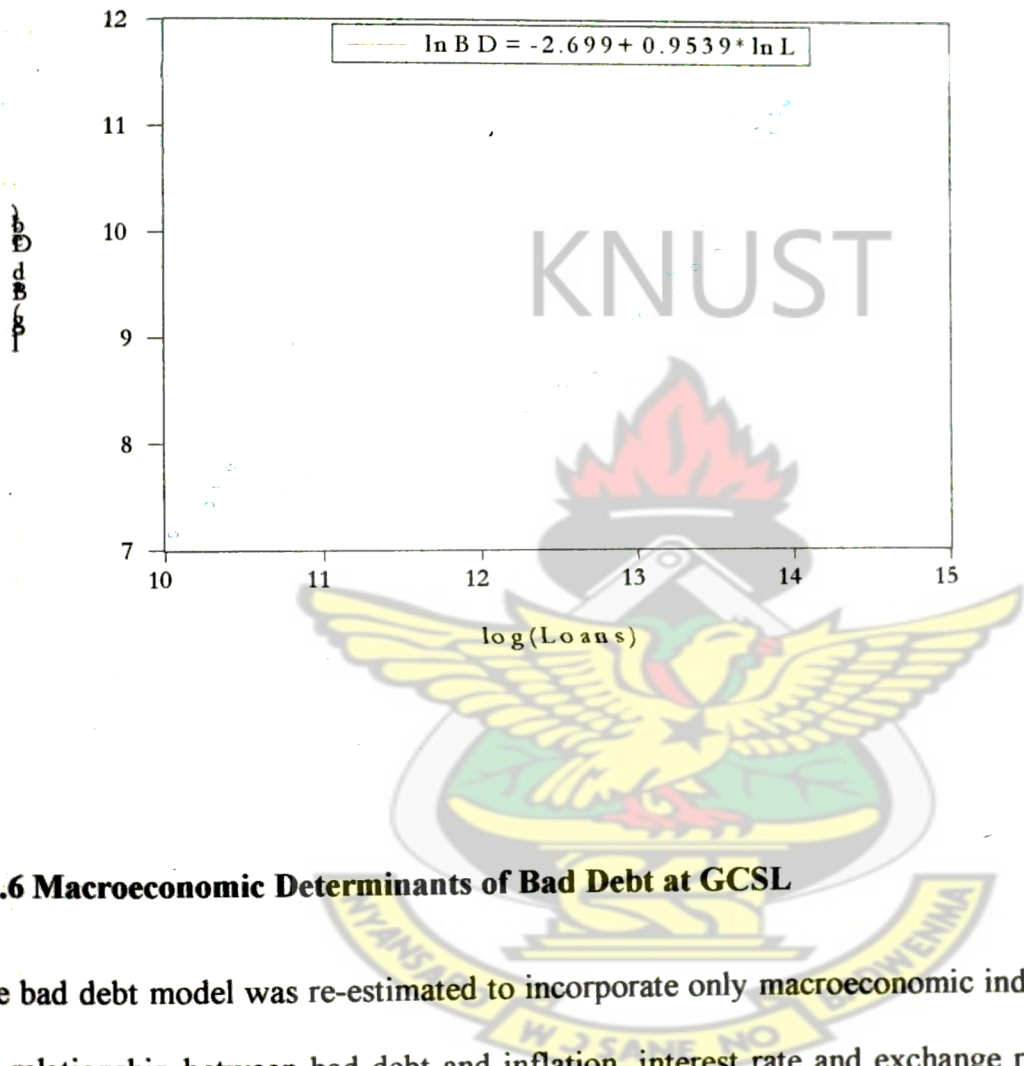
4.1.6 Macroeconomic Determinants of Bad Debt at GCSL

The bad debt model was re-estimated to incorporate only macroeconomic indicators to examine the relationship between bad debt and inflation, interest rate and exchange rate. The estimated model is also used in testing and validating the hypotheses formulated for the study. The results are shown in table 4.3 below.

Results obtained indicate a significant relationship between bad debt on one hand and exchange rate and interest rate on the other hand. Specifically, the estimated parameter estimates show a positive impact of exchange rate depreciation on bad debt while higher interest rate increase bad debt, all things being equal. The implication is that exchange rate depreciation of the cedi in particular can significantly increase GCSL' bad debt portfolio. The negative effect of currency depreciation of the cedi on bad debt could be explained by the fact that depreciation makes imports more expensive and since most of GCSL customers are traders, expensive imports means higher local prices and lower sales. The lower sales all things being equal translate into lower profits and higher default rates. Even though inflation registered the expected theoretical sign (i.e. +ve), the effect is not statistically significant during the period under consideration. This means that all things being equal, there is not enough evidence to suggest any significant relationship between bad debt situation at GCSL and the inflation rate in the economy. This result is surprising as inflation which is used as a proxy for economic instability affects all aspect of the economy. The coefficient of interest rate assumed the correct sign of positive indicating that all things being equal, higher interest rate means high bad debt at GCSL. This results meets expectations. High interest rates mean that the costs of loans are higher which could translate into higher production cost. The high production cost means higher prices of goods and services and as economic theory postulates, sales would fall. Given that the goods sold by the customers are elastic in nature from the stiff completion, lower sales means lower revenue and lower profits and hence higher probability of default. Thus, bad debt as far as GCSL is concerned is more responsive significantly to variations in the cedi and interest rates than on the level of prices in the economy. In other words, inflationary pressures have no significant effect on the levels of bad debt at GCSL The coefficient of ΔGDP possess the correct sign and significant at 99% level.

This implies that if there is a growth in GDP, signifying economic growth, bad debt would fall, all things being equal

Table 4.3: Estimated Bad Debt Model with Macroeconomic Indicators

Dependent Variable: lnBD

Method: Ordinary Least Squares

Sample (adjusted): 2000Q1 2008Q4

Included observations: 36

	Coefficient	Std. Error	t-Statistic	Prob.
lnER	-3.49683	0.384030	-9.106	0.0000
ln$INFL$	0.102666	0.237921	0.4315	0.6690
ln$INTR$	1.40313	0.227033	6.180	0.0000
ΔGDP	-0.40121	0.280721	-29.93	0.0000
C	8.0564	0.035625	16.45	0.0000
R-squared	0.939396	Mean dependent var		9.906280
Adjusted R-squared	0.933714	S.D. dependent var		1.250545

4.2: 0 Analyses of Primary Data

4.2.1: Demographic Characteristics of Respondents

In this section, we look at the demographic characteristics of respondents. These include gender, age, marital status, educational level and occupational status.

In terms of age, about 77% of all respondents fell between the ages of 20 and 40 years. This shows that most of the clients of GCSL are within the active working and youthful class. Another characteristic of GCSL clients is that majority of them are females as shown in figure 12 below.

Table 4.4 Age of Respondents

Age	Frequency	Percent	Valid Percent	Cumulative Percent
20-29 Years	66	33.0	33.0	33.0
30-39 Years	87	43.5	43.5	76.5
40-49 Years	39	19.5	19.5	96.0
50-60 Years	8	4.0	4.0	100.0
Total	200	100.0	100.0	

Figure 12: Gender of Respondents
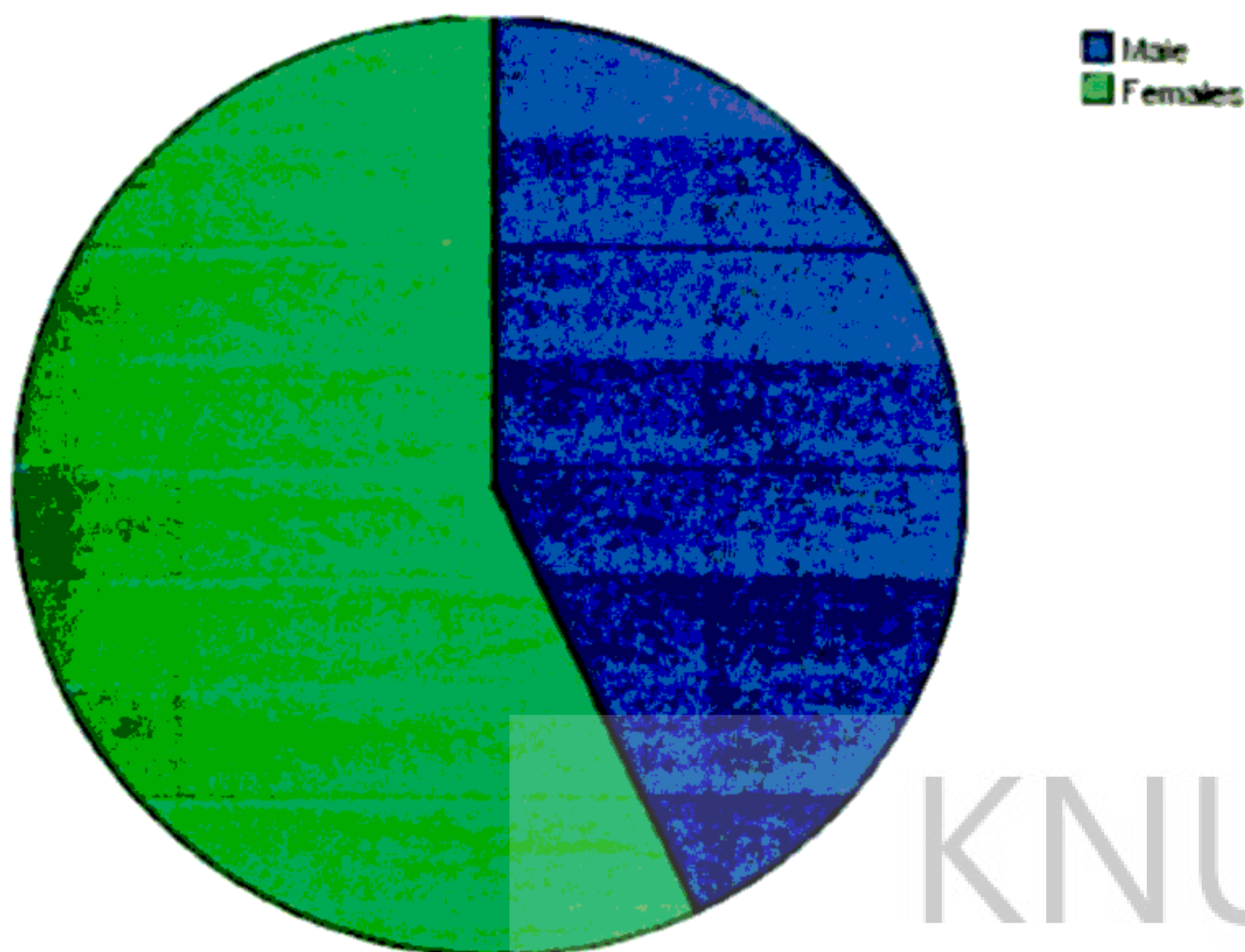
The figure shows that 57% of all respondents were females while 43% were males. This result is not surprising since microfinance institutions deal normally with low income earners of which women form the majority. Thus this result meets expectations about microfinance institution like GCSL.

One of the main characteristic of the poor is low level of education. One of the main focus of Microfinance institutions is to empower the poor who have low level of education and job potentials and financial securities. The research shows that about 65% of all respondents either had no formal education or had only basic education. As a matter of fact about 97% of all clients interviewed had only up to secondary education. The results are shown in figure 13 below

Figure 13: Educational Level of Respondents
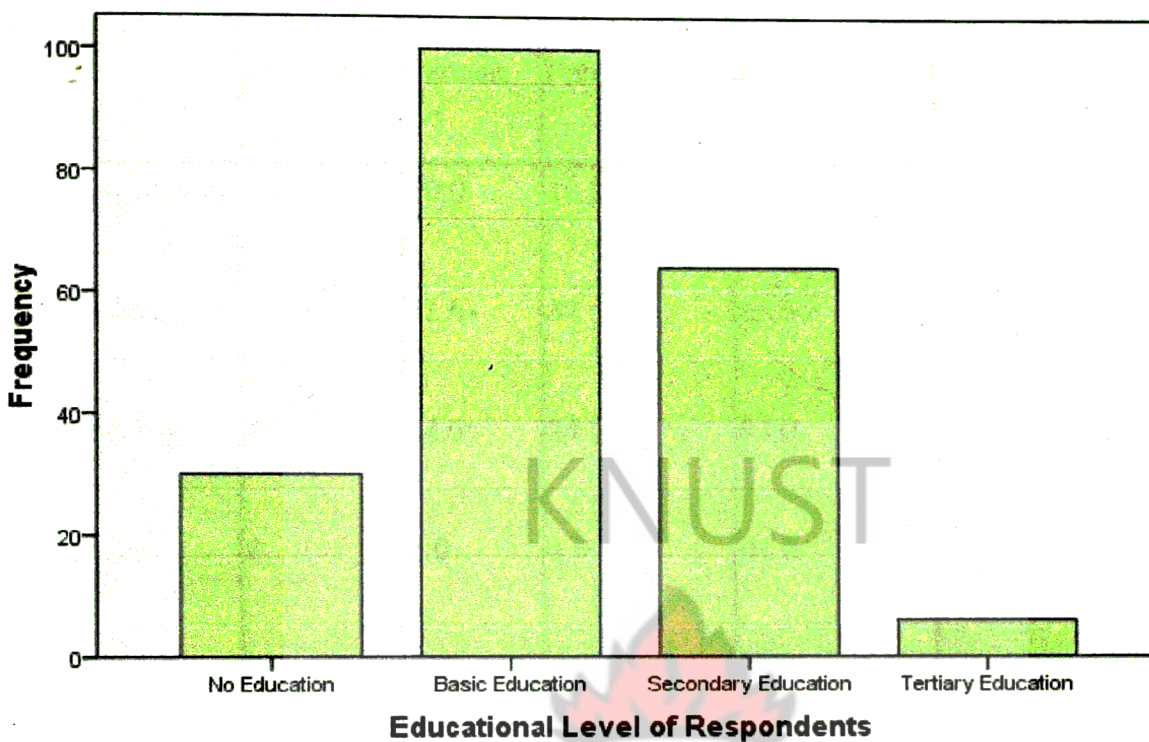
The figure clearly shows that GCSL is a pro poor institution. In other words, GCSL focus mainly on the poor as expected of microfinance institutions.

About 53% of all respondents are traders while only 3.5% are engaged in other businesses like consecution and imports and exports. This corroborates the fact that GCSL mainly serve the poor engaged in petty trading. Apart from traders however, GCSL provides financial services to teachers and civil servants as shown in the table below.

Table 4.5 Occupational Status of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Civil Servant	20	10.0	10.0	10.0
	Trading	105	52.5	52.5	62.5
	Teaching	49	24.5	24.5	87.0
	Student	8	4.0	4.0	91.0
	Mechanic	9	4.5	4.5	95.5
	Unemployed	2	1.0	1.0	96.5
	Other	7	3.5	3.5	100.0
	Total	200	100.0	100.0	

It should be pointed out that even though some clients are teachers and civil servants; these people are also engaged in some form of trading activities to augment their incomes.

4.2.2 Analysis of Current Loans Situations at GCSL

The most important motive for taking loans from loans from GCSL is to augment business as shown in figure 14 below. The figure shows clearly that most applicants of loans from GCSL do so to augment their business capital. This implies that one has to have foavourable business ties with the institution to benefit from its loan products. One area that the bank is helping the poor and its clients is in the area of school fees. The "Yemma Daakye" loan scheme aimed at helping clients to pay their children's school fees is actually helping the clients. One other area that the bank needs to look at is the provision of startup capital. Most of the clients who take the loans are to augment an already existing businesses.

Figure : Purpose of Taking Loan from GCSL
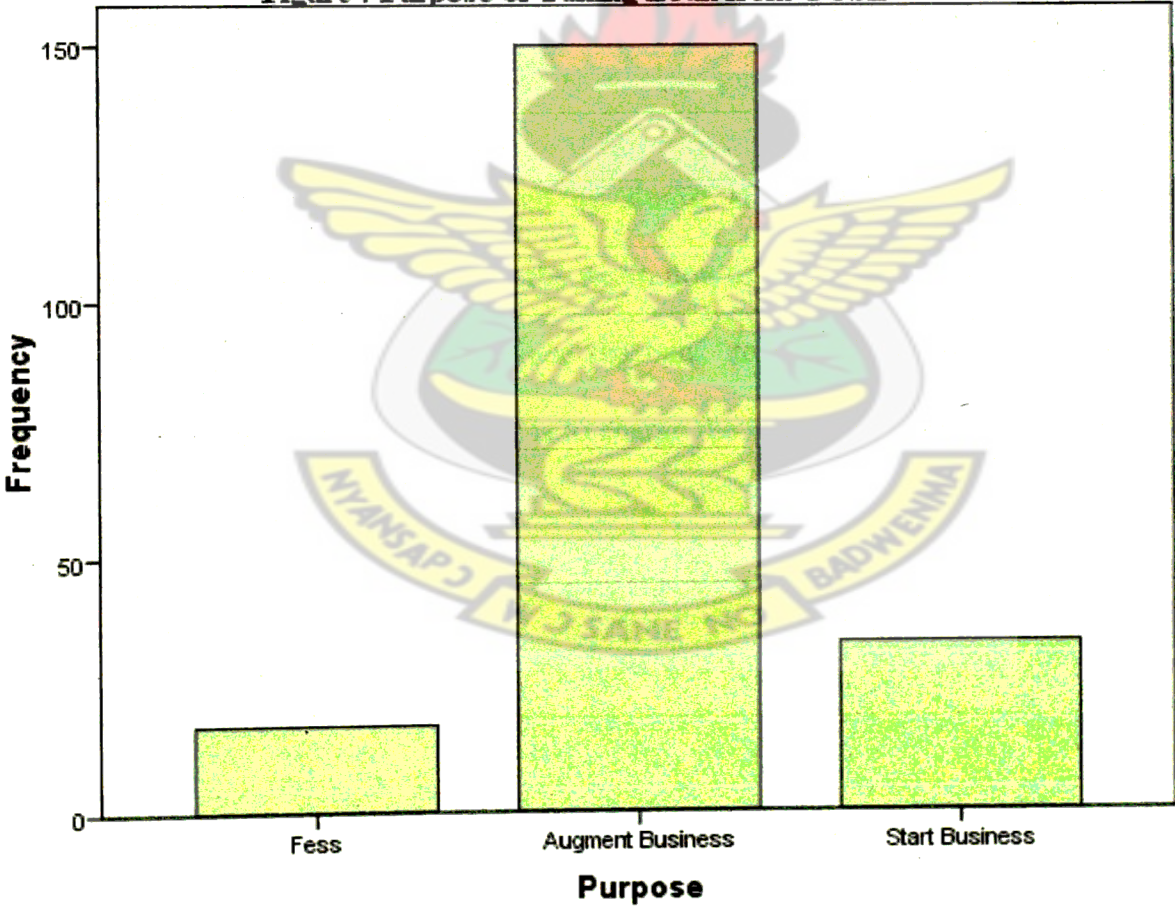
Most respondents complained that in most cases, they are not given the amount they want when they apply for loans from GCSL. In other words, customers say that when they apply for loans from GCSL, they do not get the amount they would have preferred. Out of the 200 clients interviewed, 138 said they could not obtain the amount they wanted. According to them the amount they are given are sometimes too small to be able to do the business for which they applied the loans. They sometimes have to obtain additional loans from other sources which affect their ability to pay back the loan. We could therefore say that from customers' point of view, one way to prevent or reduce the incidence of bad debt at GCSL is to meet customers' expectations about the amount of loan requested.

In the case of repayment, 21 percentage of the respondents complained that it was not enough while 79% saw nothing wrong with the time. Therefore, loan repayment period is viewed by majority are enough.

Interest rate charged by GCSL is viewed by almost all the clients as too high. However, management were of the opinion that for the institution to survive, the institution has to charge the interest it currently charges. Also, since the bank deals with the poor and relies less on collateral, the only way to incorporate risk is to charge the interest they currently charge.

Table 4.6 Previous Loan from GCSL

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	176	88.0	88.0	88.0
	No	24	12.0	12.0	100.0
	Total	200	100.0	100.0	

The results from the questionnaires show that most of the current loan clients are not first time borrowers. Only 12% were first time borrowers. According to information extracted from management, the bank is reluctant to lend to clients that default on their previous loan. Therefore those who are able to get second loans from GCSL are those who are credit worthy from the bank's point of view. As a matter of fact, about 80% of all previous borrowers were able to pay on schedule and hence were able to re-apply for another loan facility.

We wanted to find out whether customers take loans from other banks. Since double borrowing could hinder customers' ability to pay back loans contracted. The research shows that only 18 respondents representing 9% of respondents admitted to have taking loans from other banks as shown in table 4.8, but 14 of them had finished paying back as at the time they answered this questionnaires.

Table 4.7: Any Loan from other Banks

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	18	9.0	9.0	9.0
	No	182	91.0	91.0	100.0
	Total	200	100.0	100.0	

4.3 Policies To Check Bad Debt At GCSL

As pointed out earlier, bad debt is a very serious problem confronting GCSL. Realizing this, management has put in place measures to check this canker in order to position the bank to continue to serve its clients. Several policies have been put in place to check the bad debt situation in the micro sector of the loan portfolio.

The first strategy put in place by GCSL to improve loans recovery is the creation of the Loans Recovery Department headed by a Senior Management member. This department handles all loans that have the potential of going bad. Daily reports on loans are sent to the head office and the head of the department assess each of them and the overdue one are quickly tackled

Secondly, the monitoring department of the bang has been strengthened. Constant in-service trainings are conducted to sharpen the skills of both the loan officers and monitoring officers. To ensure that loans do not become bad before policies are put in place to recover, customers on loans have been shared among monitoring officer. This is to ensure that constant daily contributions of customers are checked and monitored. Those whose contribution may not allow them to repay the loan schedule are monitored closely and all assistance are given to encourage them to boost their contributions.

Thirdly, customers, especially loans customers are given training on management of business to increase their profitability and ability to pay back their loans. There are instances where loans contracted are misapplied. Misapplication of loans means that clients are not able to pay back the loans on schedule. To avert this situation the bank has made it a policy to train customers on best practices of loan usage and the importance of simple book keeping using loans for intended purposes.

The issue of collateral is also been critically adhered to as a way of revering loans. To check that the default rate is reduced, customers, especially personal loans and corporate loans customers are given loans up to only 40% the collateral they present. This is to ensure that all personal and corporate loans granted are fully secured so that in case of default, the institution can easily institute legal proceedings to get the property sold to recover the loan. Apart from fully securing the loans, only landed property with lease are accepted as collaterals. For those without landed property, the company takes assignment of charge over the stock and other valuable assets of the borrower so that in case of default, they could be sold to recover.

To ensure that repayments are monitored a comprehensive repayment plans are prepared by the company and agreed upon by the borrower. This repayment plans specify the monthly contributions that the borrower has to make to ensure that the loans are paid on schedule. This is done as a way of monitoring the speed with which the loans could be paid. Apart from the repayment plan, the client is visited from time to time as a way of learning at first hand the problems militating against their ability to pay the loans on schedule.

Group lending schemes are being encouraged as a way of lending to those without adequate security. The scheme ensures that each member serves as surety for each other. Since each member guarantees for the other, they ensure that everybody pays his/her part so that the group continues to enjoy the facility. Since the group scheme loans were instituted, the recovery rate is close to 100% and has helped to reduce bad debt.

Finally, constant reminders are given to clients who are potential defaulters. This is done to educate them on the legal implications of default and the actions that could be taken against them. Those who ignore these reminders are then given notices about the banks intentions of taking legal actions against them. As a final resort, legal actions are taken against those who default on payments. To ensure the smooth running of this policy, the company has created a legal department headed by an in-house lawyer. The department handles all legal issues pertaining to bad debt and other legal issues.

CHAPTER FIVE

SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSION

5.1   Introduction

We have been looking at the nature and seriousness of bad debt at GCSL. In this chapter, we summarize the findings of the research and offer recommendations for the company as to the best way to manage bad debt conditions at GCSL.

5.2 Summary of Findings

The research sought to find out the main determinants of bad debt at GCSL. Both secondary and primary data were used. In the course of the research the following findings were obtained:

- The results of the trend in loans and advances indicate that loans and advances are normally higher in the third and fourth quarters of the year and lower at the first quarters of the year.

- Available annual data over the period 2000-2008 shows that bad debt increased from GH¢7,360 to GH¢209,294 representing 2,700% growth over the nine year period. It increased and continued the trend till it peaked at GH¢292,890 before it began falling. In 2005, GCSL recorded yet another huge growth in bad debt of over 150% from the 2004 figure of GH¢100, 752 to GH¢256,511 for 2005 respectively (see Figure 6). The highest bad debt over the entire period was recorded in 2006 (GH¢292,890). Data analyzed generally imply that bad debt is a real challenge to the profitability prospects of GCSL Limited.

- Annual trend in net profit before tax, net profit after tax and retained profit over the period 2000-2007 has been rising over the years under review.

- Comparison of the various loan portfolios at GCSL indicates that Personal loans are the most prone to bad debt. In other words, all things being equal, about 17% of all personal loans granted by GCSL go bad. Micro loans (made up of Special 'Susu' Loan, "Boafo Yenna" Loans, "Yemma Daakye" Loans, etc) are the least prone to bad debt. The research showed that, all things being equal, only 1.8% of all Micro loans go bad.

- Four models were estimated to explain bad debt at GCLS Ltd over the period 2000-2008 using quarterly data on bad debt and loans granted. In three of the four estimated models, current loans granted to clients positively and significantly explain bad debt. Thus, the higher the loans granted, the higher the level or rate of payment default, all things being equal. In other words, the high levels of bad debt experienced by GCSL could be attributed to loans granted

- In addition, past bad debt significantly impacts positively on bad debt. The lagged coefficient of bad debt in all three models is statistically significant at the 5% level. This means that past levels of bad debt can help explain current levels of bad debt.

- The bad debt model was re-estimated to incorporate only macroeconomic indicators to examine the relationship between bad debt and inflation, interest rate GDP growth and exchange rate. The estimated model is also used in testing and validating the hypotheses formulated for the study. Results obtained indicate a significant relationship between bad debt on one hand and exchange rate and interest rate on the other hand

- Primary data collected indicated that majority of the clients of GCSL are females indicating that GCSL focus more on women than men. Also majority of clients fall within the ages of 20 and 40 years. In terms of education, majority of the clients of GCSL are basic school leavers. The greater proportions of the clients are traders. The treason for this is that for one to qualify for micro loan from GCSL, the person should contribute daily for certain minimum number of days which could only be met by traders.

- The main purpose of clients applying for loans from GCSL is to augment businesses. Many clients apply for loans from GCSL in order to top up their capital. As pointed out earlier, customers must save for a certain number of months before they could apply for a loan and this explains why few people are given loans to start up business.

- Most of the customers complain that they do not normally receive the amount of loans they request for. However, management were of the opinion that due diligence is done and loans are given based on the customers' ability to pay.

- Finally, it was found out that policies have been put in place by the management of GCSL to minimize the problems of bad debt. They include training programmes for both staff and clients. This is to ensure that loans are properly utilized by customers and monitored by management.

5.3 Recommendations:

Based on the findings, the following recommendations are made.

Since greater percentage of personal and corporate loans go bad, management must expedite action on the recovery rate at these two sectors. If possible, lending to these two sectors should be reduced until outstanding debts are recovered. However, if it is not possible to cut lending to these areas, a special unit should be created within the recovery department to be solely responsible for recovering personal and corporate loans. As a last resort, collateral for accessing corporate or personal loans should be strengthened to make recovery easier.

Secondly, Management must increase their monitoring activities not only among defaulters but also among those on loans described as current. This is to ensure that they do not go bad before they are monitored.

The third recommendation is that Management should strengthen the group loans scheme. Since members guarantee for each other under the scheme, potentials of default are minimized.

It further recommended that Management must intensify their educational drive among customers to understand the need to repay loans on schedule.

Finally, Management should take the initiative of insuring loan to mitigate the effect of bad debts.

5.4 Conclusion

Bad debt is an issue that all financial institutions grapple with throughout the world. this research sought to analyze this in savings and loans institutions using Garden City Savings and Loans Ltd as the case study. Using both Primary and Secondary data we analyzed the current bad debt issues at Garden City Savings And Loans Ltd. Four models were estimated to analyze bank specific factors that cause bad debt. The factors we considered were current loans, past values of loans and past values of bad debt. It was found out that current levels of loans and previous levels of bad debt all have significant impact on bad debt with little evidence suggesting any effect of past loans on current bad debt. To examine the impact of macroeconomic variables on bad debt, another model was estimated using macroeconomic variables such as Inflation, Exchange Rates, Interest Rates and GDP. Consistent with international evidence we found that the real effective exchange rate has a significant positive impact on non-performing loans. This indicates that whenever there is depreciation in the local currency the bad debt portfolios of microfinance institutions are likely to be higher. Our empirical results show that GDP growth is inversely related to bad debt, suggesting that an improvement in the real economy translates into lower bad debt. We also find that banks that charge relatively higher interest rates and lend excessively are likely to incur higher levels of bad debt. However, contrary to previous studies, our evidence does not support the view inflation has any impact on bad debt.

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APPENDIX

QUESTIONAIRES

QUESTIONNAIRES FOR CUSTOMERS OF GARDEN CITY SAVINGS & <u>LOANS</u> <u>LIMITED</u>

The purpose of this questionnaire is academic; therefore all provided information would be held confidential.

<u>Please tick, clarify, and provide additional information where appropriate</u>

1. Age:

   a. 20 – 30 years   [   ]

   b. 30 – 40 years   [   ]

   c. 40 – 50 years   [   ]

   d. 50 – 60 years   [   ]

   e. 60 years and above   [   ]

2. Gender:

   a. Male   [   ]

   b. Female   [   ]

3. Marital status:

   a. Single   [   ]

   b. Married   [   ]

   c. Separated   [   ]

4. Educational level

   a. None   [   ]

   b. Basic education   [   ]

   c. Secondary education   [   ]

   d. Tertiary education   [   ]

5. Occupation

    a. Civil servant   [   ]

    b. Trading   [   ]

    c. Teaching   [   ]

    d. Student   [   ]

    e. Mechanics   [   ]

    f. Unemployed   [   ]

    g. Other   [   ]

6. How many years have you been doing business with GCSL.

    Less Than 1 Year [ ]. 1-2 Years [ ] 3-4 years [ ] 5-6 Years [ ] Above 6 Years

7. How many times have you taken a Loan from GCSL?

    ....

8. State the purpose for taking the current loan and type of business.

    ....

    ....

9. How much did you request and how much were you given:

    Amount requested...................... Amount Given. ....

10. Is the amount given enough to be able to pay back on time?

    Yes [ ]   No [ ]

11. Length of time for repayment.

    ....

12. Is the time given for repayment sufficient to be able to pay back the loan?

    Yes [ ]   No [ ]

13. If no, what is the best repayment time for you?

    ....

14. Have you taken a loan from GCSL before?

Yes [   ]   No [   ]

15. Were you able to pay on schedule?

    a. Yes   [ ]

    b. No   [   ]. Why...

16. Have you taken a loan from any other financial institutions?

Yes [   ]   No [   ]

17. Were you able to pay on schedule?

   Yes   [ ]

   No   [   ]. Why..

18. From your own opinion, what are the causes of loan default in Ghana?

....

....

....