CHRISTIAN SERVICE UNIVERSITY COLLEGE

AN ASSESSMENT OF THE EFFECTS OF ECONOMIC FACTORS ON NON-PERFORMING LOANS: A CASE OF SELECTED UNIVERSAL BANKS IN GHANA

BY

LORD MYCROFT NIXON

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Dissertation submitted to the Department of Accounting and Finance of the School of Business, Christian Service University College in partial fulfillment of the requirements for the award of the Master of Science Degree in Accounting and Finance

JUNE, 2018

DECLARATION

Candidate's Declaration

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

Candidate's Signature …….. Date ……

Lord Mycroft Nixon
(Student)

Supervisor's Declaration

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

Supervisor's Signature …….. Date ……

Dr. Mrs. Joyce Ama Quartey
(Supervisor)

ABSTRACT

The main objective of the study was to assess the effect of economic factors (inflation, lending rate, budget deficit, exchange rate, GDP growth, credit growth, savings) on non- performing loans of selected universal banks in Ghana. Its specific objectives were to identify why firms in the banking industry are not able to recover debts; to investigate the influence of economic factors on NPLs of selected universal banks in Ghana: to examine the relationship between bank related factors. The empirical results revealed that non-performing loans was statistically significant at 1% (0.01) including gross domestic product, lending rate, exchange rate, savings, budget deficit and domestic credit growth. The result of the correlation analysis showed that lending rate has a significant influence on savings. The result indicated that there is a significant relationship between exchange rate and savings. In addition, the correlation analysis shows that exchange rate has a significant influence on budget deficit in the country. The result further indicates that savings has a positive and significant relationship on domestic credit growth to private. This study employed regression model to examine the influence of one variable on another variable. The regression analysis examined the relationship between non-performing loans and lending rate. The result shows that there is a positive and significant relationship between non-performing loans and lending rate. The implication is that, most loans will be defaulted on if the lending rate is very high and vice versa. The relationship between inflation and non-performing loan also shows that inflation rate has a positive significant effect on non-performing loan. High inflation rate results in an increase the standard of living in the country and causes a reduction in peoples' spending power. This affects the economic growth of the country and can result in non-performing loans. The result further indicated that there is significant relationship between credit growth and non-performing loans.

DEDICATION

This work is dedicated to my daughter, Grizelda Otilie Nana Akosua Konadu Nixon.

This is to motivate and inspire you to reach newer heights.

ACKNOWLEDGEMENT

"A single hand cannot tie a bundle" says an old adage. Many people have made it possible for me to complete this work. My most profound gratitude goes to the Almighty God for seeing me through the entire period; I live for you God. I'm also grateful to my family, especially my mother, Abenaa Akuamoah Boateng and my wife, Joye Amo Boaduwaa Nixon. Without their motivation and assistance, I wouldn't have been able to pursue my post graduate education.

I would like to express my profound gratitude to my supervisor, Dr. Mrs. Joyce Ama Quartey for the patience, useful comments, remarks and engagement through the process of completing this thesis.

LIST OF ABBREVIATIONS

BoG	Bank of Ghana
CSUC	Christian Service University College
GRA	Ghana Revenue Authority
GDP	Gross Domestic Product
NPLs	Non Performing Loans
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Square
RMS	Real Money Supply
ROA	Return on Assets
SME's	Small and Medium Enterprises
SSA	Sub-Saharan Africa
VEC	Vector Error Correction
VAR	Vector Auto Regression

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

The subject of NPLs continues to attract attention from diverse cycles of the academia more so in Ghana where it is considered as contemporary issue and a matter of urgency. Non-performing loans (NPLs) refer to those financial assets from which banks no longer receive interest or the installment payments as scheduled. They are known as non-performing because the loan ceases to perform or generate income for the bank. Choudhury, (2002) states that the non-performing loan is not a unitary class but rather a multiclass concept. This implies that NPLs are classified into varieties, usually based on the length of overdue payment of the said loans.

The banking sectors and as a matter of fact the financial institutions play a key role in the development of an economy. The developmental role undertaken by the financial sector determines the step for development of the economy. Hence the stability of this sector is a major key to the development of an economy. The prime function of the sector is the mobilizing of deposits from surplus units to deficit units in the form of loan and advances to various sectors such as agricultural, industry, personal and governments. However, in recent times, the financial sector has become very cautious in extending loans due to its non-performing assets (Sontakke and Tiwari, 2013). Moreover, universal banks function as a major sector from which funding to business activities as well as other projects throughout the country are accessed from. As noted by Daniel and Wandera (2013) they play a vital role to emerging economies where most borrowers have no access to capital markets. Thus, they are considered as an intermediary between the depositors and borrowers.

In a bank-centered financial system, NPLs can frustrate economic recovery by shrinking operating margin and wear away the capital base of the banks to advance new loans. This is sometimes referred to as credit crunch (Bernanke et al., 1991). Additionally, NPLs, when created by the borrowers willingly and left unresolved, might serve as a contagious financial depression by driving good borrowers out of the financial market. From the view point of Muniappan, (2002) a bank with high level of NPLs is obligated to incur carrying costs on non-income yielding assets that not only strike at profitability but also at the capital adequacy of a bank, and in consequence, the bank faces difficulties in augmenting capital resources. Bonin and Huang, (2001) asserted that the probability of banking crises increases if financial risk is not eliminated quickly. Such crises not only lower living standards but can also eliminate many of the achievements of economic reform overnight.

Lending and loans make up the bulk of a bank's assets and loans represent the majority of a bank's assets (Njanike, 2009, Saunders and Cornett, 2005). In pursuant, the bank is exposed to numerous risks including operational risk, legal risk, reputational risk, liquidity risk and credit risk. Again of all these potential risks, credit risk seems salient and has a relatively significant impact on the banks overall existence. Despite the risk associated with granting of credits, universal banks give much attention to lending activity because substantial amount of their income is earned on loans and advances in the form interest income which largely contributes to their financial performance.

According to Rawlin et al. (2012), the principal aim of any business is to make profits. That is why any asset created in conduction of business should generate income for the business. Since this issue is applicable for the banking sector business, banks should give due consideration on the management of loans because lending is the main business of universal banks and loan is normally the main assets and vital source of

revenue for these banks (Daniel and Wandera, 2013). Therefore, banks do grant loans and advances to individuals, business organizations as well as government in order to enable them operate on investment and development activities as a means of contributing toward the economic development of a country in general and aiding their growth in particular.

Moreover, most of the business activities and transactions by the universal banks are conducted with funds which are collected from the public by way of deposits. A non-performing asset in the banking sector may be termed as the asset which does not contribute to the income of the bank. In other words, it is a zero yield asset when applied particularly to loans and advances. The actual concept of NPA is that it is an asset which ceases to yield income for the bank and that any income accrued from such asset shall not be treated as income until it is actually realized. Classification of an asset as NPA are based on records of recovery. Therefore, an asset is to be classified as NPA when there is a threat of loss or the recoverability is in doubt. In spite of wide ranging reform measures initiated in the universal banking sector, the problem of non-performing assets continues to assume a central place in issues relating to banking sector. As many literatures have shown, there have been an increased number of significant bank problems both at matured and emerging economies (Tendia et al. 2012). Banking sectors can perform worst as a result of inefficient management, low capital adequacy and poor assets quality. NPA is singularly the largest cause of irritation of the banking sectors (Sontakke and Tiwari, 2013)

Hence, there is the need for a thorough research to be conducted to ascertain the effect of economic factors on the non performing loans which impact economic performance of universal banks in Ghana.

1.2 Problem Statement

According to the Ghana Banking Survey, (2011) there had been an adverse increase in non-payment and NPLs of financial institutions. This is not peculiar to only Ghana alone but universally it has become a common phenomenon that financial institutions are confronted with the snare and the colossal peril of the issue of non-performing loans (NPLs). Indisputably, the issue of NPLs poses a real challenge since it brings along with it a tremendous disturbance to the very fundamental principles of liquidity, solvency, profitability and even capital adequacy which are basic to the very existence of every financial institution. The existence of NPLs poses a major threat to the economic growth and performance, especially to the understudied financial institutions. Again it weakens the financial wheels on which the performance of the economy thrives. Also, there are other far reaching repercussions when it comes to NPLs. This is due to the fact that; other potential borrowers may be denied access to credit facilities as a result of NPLs. The non-performing loans sometimes could lead to the total collapse of the bank which invariably affects the economy of a country.

Deposits in banks are offset by higher margins from creation of credits as loans. However, if such assets do not generate any income, the banks` ability to repay the deposit amount on the due date would be in question. Therefore, the banks with such asset would become weak and such weak banks will lose the faith and confidence of the customers. Ultimately, unrecoverable amounts of loans are written off as non-performing loan (Mallick et al., 2010) as cited in Rawlin et al. (2012).

Deterioration in asset quality is much more serious problem of bank unless the mechanism exists to ensure the timely recognition of the problem. It is a common cause of bank failure. Poor asset quality leads nonperforming loan that can seriously

damage a banks' financial position having an adverse effect on banks operation (Lafuente, 2012).

Thus, given the unique features of banking sector and environment in which they operate as well as the expansion of banking institutions in Ghana, there are strong desires to conduct a separate study on the effect and impact of NPLs and the economic factors which influence it on the universal banking sector in Ghana. Again there seems to be a form of inconsistent results in different studies among researchers which also clarifies the need to conduct this study.

Nonetheless, most of the studies on NPLs on banks were carried out in the advanced economies. For instance, Aver (2008), in his study of NPLs on Slovenian banking system, Das and Ghosh (2007), in their study on determinants of credit risk in state-owned banks in India and many more. These studies were conducted under exclusive regulatory and economic environments where the level of market efficiency is advanced as compared to those of emerging and developing economies like Ghana. Hence, there is also a form of a research gap which needs to be filled when it comes to the effect of economic factors on non-performing loans of selected universal banks in Ghana. Therefore, this study sought to fill in this research gap.

1.3 Purpose of the Study

The purpose of this study is to assess the effect of economic factors on Non performing loans of selected universal banks in Ghana.

1.4 Research Objectives

The main objective of the study is to assess the effect of economic factors on non-performing loans of selected universal banks in Ghana. The specific objectives of the study include;

i) To assess some of the reasons why firms in the banking industry are not able to recover debts.

ii) To investigate the influence of economic factors (inflation, interest rates, exchange rates, budget deficit, GDP growth) on NPLs of selected universal banks in Ghana.

iii) To examine the relationship between bank related factors (lending, savings, credit growth) and non performing loans.

1.5 Research Questions

i) What factors account for the inability of financial institutions/firms to recover debts?

ii) What relationship exists between economic factors and non performing loans and to which extent do they affect universal banks?

iii) How do bank related factors (lending, savings, credit growth) influence non-performing loans of universal banks in Ghana?

1.6 Significance of the Study

The findings of the study are of immense interest to universal bank managers as well as rural bank managers as they will get an in-depth knowledge about some of the effects of economic factors on non-performing loans which affects their overall economic performance. This would grant them an in depth look into the necessary control

measures in averting some of the challenges of non-performing loans. Also, the central bank of Ghana could employ the findings of this research work in the financial institutions as in the form of a guideline that would enable the management of non-performing loans in the universal banks in Ghana to do better, while protecting the interest of the public and the economy.

Furthermore, the findings would be relevant to the government, regulatory bodies, financial consultants and the universal banks themselves. The findings of the study would enable bank managers, financial consultants and investors to make timely decisions on how to avoid risk, transfer risks, risk reduction or retain the risk in a bid to maximize returns.

Moreover, the findings from this study will assist in providing more literature to support existing theoretical propositions on the effects of economic factors on non-performing loans and its impact on economic performance of universal banks in Ghana and provide a basis for further studies.

1.7 Delimitation of the Study

The study is to assess the effect of economic factors on non-performing loans of selected universal banks in Ghana using cross sections data for ten (10) banks from the annual period 2016. The selected universal banks included the GCB.

1.8 Limitations of the Study

The study is limited to universal banks in the Ashanti Region within the 2016 period.

1.9 Organization of the Study

The research is divided into major five chapters. The first chapter, which is the introduction, encompasses the background of the study, problem statement, the research objectives and questions, significance, delimitation and limitation of the study and the organization of the study. Chapter two comprises the theoretical and empirical review of the relevant literature. Chapter three looks at the research methodology and profile of the case study. It also outlines the research instrument and data collection procedures. Chapter four centered on the presentation and analysis of data collected and the final chapter deals with the summary, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter deals with the review of relevant literature on NPLs and other related issues. The chapter consists of two sections, namely the theoretical review section and the empirical review section.

2.2 Theoretical Review

This presents a review of the relevant theories that explain the effect of economic factors on NPLs as well as the effects of non-performing loans on the economic performance of financial institutions.

2.2.1 Deflation Theory

According to Fisher (1933), the deflation theory suggests that when debt occurs, there are sequence of events that occur afterwards. Firstly, debt liquidation leads to distress as well as the selling and contraction of deposit currency, as bank loans are paid off. This contraction of deposits leads to a fall in the level of prices, which also results in greater fall in the net worth of the bank. This precipitates bankruptcies. These cycles cause complicated disturbances in the rates of interest and a fall in the money value.

Again, the above complication has both external and internal forces which are macro and micro factors influencing the state of over-indebtedness existing between, debtors or creditors or both of which can compound loan defaults.

2.2.2 Liquidity Preference Theory

The liquidity preference theory was propounded by Lord Keynes in (1936), according to him the theory seeks to explain the level of interest rate with regards to the

interaction of two important factors, the supply of money and the desire of savers to hold their savings in cash or near cash. Keynes (1936) defined this theory as the rewards of not hoarding but the rewards for parting with liquidity for the specified period. This theory is therefore characterized as the monetary theory of interest as distinct from the real theory of the classical school of thought. Keynes (1936). Furthermore, he posited that the determination of interest rates will be found in the money market and there are basically the supplies of money exogenously determined, while the demand for money depends on the three certain motives. Keynes (1936) stressed that, money is held to finance expenditures, including both transactions and of the level of income. However, he believed that money is held for purpose other than as a medium of exchange.

Jhingan, (2004) confirmed that those who hold money deem or expect that money balance will exceed the yield on alternative assets which are said to exhibit liquidity preferences. Amadi and Akani (2005) were of the view that, more individual expect a future increase rates when the current level of interest rates is high. Andabai (2007) also observed that, liquidity preference and the speculative demand for money are opined to be inversely related to the current level of interest rates. Liquidity preference as seen here is the degree of risk aversion and the expected yield on alternative financial assets (Pandey, 2005). Okpara (2007) stated that, the total demand for money combines the speculative motive with the transaction and precautionary reasons Keynes labeled as M1 which he made as function of nominal income. Again, the part held for speculative purposes he labeled as M2 which is also dependent on the market rate of interest. Uchendu (2010) opined that M1 and M2 should not be confused with the M1 and M2 definitions of money supply.

According to Afolabi (1999), the demand for money that is liquidity preference depends on two factors. They are nominal incomes and the market rate of interest. Alternately, the demand for money depends on a real income and the real rate of interest if the price level is constant or if the demand for money is stated in real terms.

According to Rose (2000), the rate of interest is the price of acquiring credit, usually expressed as a ratio of the cost of securing credit to the total amount of credit obtained. Interest rates send price signals to borrows, lenders, savers, and investor Andabai (2000). For instant, increase in interest rates or Deposit rate generally brings a greater volume of savings and loadable funds in the economy where as lower rates of interest or Lending rate attract borrowing and investment spending in the economy. According to Uchendu (2010), the purpose of interest rate is to serve as a guarantee that current savings will flow into investment that will promote economy growth and also retains the available supply of credit, providing loadable funds to those investment projects with the highest expected returns as it brings the supply of money into balance with the polices of demand for money. It is also an important tool of the government policy which influences the volume of savings and investment (Akpan, 2004). Basically there are three theories on the determination of interest rate. These include Nzotta (2004) and the loadable funds theory or the classical theory of interest rate. The next is liquidity preference theory which is the Keynesian theory of interest rate and the general Equilibrium theory or the Hicks theory of interest rate.

Moreover, Jhingan (2005) opined that, loadable funds theory explains the determination of interest in terms of demand and supply. According to this theory, the rate of interest is the price of credit which is determined by the forces of demand and supply. Nzotta (2004) also posited that, this theory, is also known as loadable funds

theory, since it contends that, interest rates are determined by supply and demand funds.

Also, according to Amadi and Akani, (2005) the loanable funds theory of interest at any time represents an equilibrium price at which the demand for credit from those who prefer to have the interest. However, Tokunbo (2005) is of the view that the demands for loadable funds is from three sources which are government, businessmen and consumers, who used them for the purpose of investment in the economy.

Friedman (1970) observed that, cash balances do not yield interest and has no risk, while bonds are associated with two basic risks: default and money rate risk. According to Ezenduji (2010), money risk is the market yields which may rise or bond prices fall thereby causing bondholders to lose principal, if the bond has to be sold before naturally it matures. Ezeuduji (1974) confirmed that, not all savings will be directly invested so that the rate will not necessarily establish equilibrium between saving and investment. Ogwuma, (2008) posits that, the determination of interest rates will be found in the money market and there are basically the supply of money and also the demand for money.

2.2.3 Financial Instability Hypothesis

The financial instability hypothesis was pioneered by Minsky (1974) who attempted to provide some form of explanation of the characteristics of financial crisis. This hypothesis suggests that in prosperous times, when corporate cash flow rises beyond what is needed to pay off debt, a speculative euphoria develops, and soon thereafter debts exceed what borrowers can pay off from their incoming revenues, which in turn produces a financial crisis. As a result of such speculative borrowing bubbles, banks and lenders tighten credit availability, even to companies that can afford loans and the economy subsequently contracts.

This hypothesis buttresses some points of this study in that a hedge borrower would have a normal loan and is paying back both the principal and interest; the speculative borrower would have a watch loan; meaning loans' principal or interest is due and unpaid for 30 to 90 or have been refinanced, or rolled-over into a new loan; and the Ponzi borrower would have a substandard loan, meaning the payments do not cover the interest amount and the principal is actually increasing. The primary sources of repayment are not sufficient to service the loan. The loan is past due for more than 90 days but less than 180 days. Substandard loans are nonperforming loans, hence applicability of financial theory in this study.

2.2.4 Credit Rationing Theory

The adverse selection theory of credit markets was instigated by Stiglitz and Weiss (1981). The theory rests on two main assumptions that lenders cannot distinguish between borrowers of different degrees of risk, and that loan contracts are subject to limited liability that is if project returns are less than debt obligations, then the borrower bears no responsibility to pay out of pocket.

In a world with simple debt contracts between risk-neutral borrowers and lenders, the presence of limited liability of borrowers imparts a preference for risk among borrowers, and a corresponding aversion to risk among lenders. This is because limited liability on the part of borrowers implies that lenders bear all the downside risk. On the other hand, all returns above the loan repayment obligation accrue to the borrowers. Raising interest rates then affects the profitability of low risk borrowers disproportionately, causing them to drop out of the applicant pool. This leads to an adverse compositional effect of higher interest rates which increase the average riskiness of the applicant pool. At very high interest rates, the only applicants are borrowers who could potentially generate very high returns (but presumably with small

probability). Since lenders' preferences over project risk run counter to those of borrowers, they may hold interest rates at levels below market-clearing and ration borrowers in order to achieve a better composition and lower risk in their portfolio. Excess demand in the credit market may persist even in the face of competition and flexible interest rates.

Stiglitz and Weiss' theory was designed to apply quite generally, rather than in the specific context of informal credit in developing countries. In the latter context, the theory has often been criticized for its underlying assumption that lenders are not aware of borrower characteristics.

2.2.5 Theory of Asymmetric Information

The theory of asymmetric information proposes that it may be difficult to distinguish well about bad borrowers (Auronen, 2003 and Richard, 2011), which may result into adverse selection and moral hazards problems. The theory posited that in the market, the party that possesses more information on a specific item to be transacted (in this case the borrower) is in a position to negotiate optimal terms for the transaction than the other party (who in this case, is the lender) (Auronen, 2003 in Richard, 2011). The theory also elaborated on how adverse selection and moral hazards have led to significant accumulation of non-performing loans in financial institutions (Bester, 1994; Bofondi and Gobbi, 2003).

2.3 Empirical Review

Empirical Review

A lot of studies have been conducted on the difficulty of nonperforming loans for banking sectors. For instance, the study of Calice (2012) for the Tunisian banking sector, found the banking sector suffering from decline in asset quality. In addition,

Blanco and Gimeno (2010) for South African banks and Kolapo (2012) for the Nigerian banks. NPLs have an adverse effect on banking sectors survival. Thus, since nonperforming loans have an adverse effect on the banking sectors' survival, the cause for NPLs should be given due consideration. Its causes are different in different countries that might be due to situational factors such as the level of economic condition in which the banking sectors are operating and also bank level factors. Accordingly, this issue attracted the interest of different researchers in different countries. That means a lot of studies have been conducted on the determinants of NPLs of financial sectors worldwide. Some of them are listed below.

To begin with, Saba et al. (2012) made a study on the determinants of NPLs on US Banking sector and found that lending rate had a negative effect while inflation and Real GDP per capital had positive and significant effect on NPLs. Besides, Louziset al. (2010) examined the determinants of NPLs in the Greek financial sector using dynamic panel data model and found that real GDP growth rate, ROA and ROE had negative effect whereas lending, unemployment and inflation rate had positive significant effect while loan to deposit ratio and capital adequacy ratio had insignificant effect on NPLs.

The study of Skarica (2013) on the determinants of NPLs in Central and Eastern European countries through fixed effect model also reported that GDP growth rate, unemployment rate and inflation had negative and significant impact on NPLs. Similarly, Carlos (2012) based on OLS model estimators found that NPLs have negative association with GDP growth rate whereas a positive association with unemployment rate was reported. Besides, Moti et al. (2012), made study on the effectiveness of credit management system on loan performance and found that credit quality, interest rates charged, credit risk control and collection policies had an effect on loan performance in Ghana.

Similar to the Western and other African countries like Ghana. Wondimagegnehu (2012) conducted a study on determinants of nonperforming loans and found that poor credit assessment, failed loan monitoring, underdeveloped credit culture, lenient credit terms and conditions, aggressive lending, compromised integrity, weak institutional capacity, unfair competition among banks, and fund diversion for unexpected purposes and overdue financing had an effect on the occurrence of NPLs.

2.4 Factors that Influence Non-Performing Loans

2.4.1 Inflation Rate

Inflation can lead to uncertainty about the future profitability of investment projects especially when high inflation is also associated with increased price variability. This leads to more conservative investment strategies than would otherwise be the case, ultimately leading to lower levels of investment and economic growth. Inflation may also reduce a country's international competitiveness, by making its exports relatively more expensive, thus impacting on the balance of payments. Moreover, inflation can interact with the tax system to distort borrowing and lending decisions. Firms may have to devote more resources to dealing with the effects of inflation (Gokal and Hanif, 2004).

The following empirical studies have attempted to examine whether the relationship between inflation and long-run growth is linear; non-linear; casual or non-existent. Studies by Dewan et al (1999) and Dewan & Hussein (2001) revealed some insights into the inflation growth relationship. Dewan et al (1999) found that changes in the difference between actual GDP and potential GDP output gap had a bearing on inflation outcome which also has impact on NPLs. In another study, Dewan & Hussein

(2001) found in a sample of 41 middle-income developing countries that inflation was negatively correlated to growth, which also affected economic performance.

2.4.2 Economic Growth

Economy is the physical subsystem of our world made up of stock of population and wealth, and the flow of production and consumption (Daly, 2010). Economic growth refers to the growth of the economy and can be defined as an increase in the capacity of an economy to produce goods and services, compared from one period of time to another. Abbas (2005) defined Economic Growth as an increase in the production and consumption of goods and services. It refers primarily to national economies and is usually measured in terms of Gross Domestic or Gross National Product (GNP).

Investment is the most fundamental determinant of Economic Growth identified by both neoclassical and endogenous growth models (Podrecca & Carmeci, 2001). However, the neoclassical model of investment has impact on the transitional period, while the endogenous growth models argue for more permanent effects. The importance attached to investment by these theories has led to an enormous amount of empirical studies examining the relationship between investment and Economic Growth (Easterly, 2002 and Bond, 2002). Nevertheless, findings are not conclusive.

Economic Growth can either be positive or negative. While positive Economic Growth can be explained by the expansion an economy, negative Economic Growth can be explained by the shrinking of the economy. In addition, negative growth is associated with economic recession and economic depression. Gross National Product is sometimes used as an alternative measure to Gross Domestic Product. In order to compare multiple countries, the statistics may be quoted in a single currency, based on either prevailing exchange rates or purchasing power parity. Then, in order to compare countries of different population sizes, the Per Capita figure is quoted. To compensate

for changes in the value of money (inflation or deflation) the GDP or GNP is usually given in real or inflation adjusted terms rather than the actual money figure compiled in a given year, which is called the nominal or current figure (Ayres et al. 2006).

2.4.3 Credit Growth

Credit Growth is a factor that affects credit risk and bank soundness and consequently failure depending on both macro-economic and bank specific handling of the growth by both the sector and the banks individually. The Basel Committee on Banking Supervision (BCBS, 2010) has introduced a countercyclical capital buffer aimed at protecting the banking sector from periods of excessive credit growth, which have often been associated with growth in credit risk and bank failures. In good times, banks will be in accordance with set rules, create a capital reserve which can then be used to moderate contractions in the supply of credit by banks in times of recession. In investigating the effects of credit growth and non-performing loans, Basel Committee on Banking Supervision., (2009) found that excessive and unmonitored credit growth gives rise to higher rates of default due to the lax screening of applicants which is as a result of credit growth. Hence a positive relationship is expected between credit risk and credit growth.

2.4.4 Credit Risk

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 indicates 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 2001). Thus, management of credit risk is very important and central to the financial health of banks and indeed the entire financial system.

2.5 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 (George and Bob-Milliar, 2007).

The banking industry in Ghana for the last three decades has resulted in the doubling of the total shareholders' funds 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¢l.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 noted that the industry is suffering from bad debts which results to an increase in credit risk.

2.6 Concept of Non-Performing Loans

There is no common definition of nonperforming loans (NPLs) in the whole country since it is realized that what is appropriate in one country may not be so in another. There is, however, some common opinion on this issue. Accordingly, the IMF's Compilation Guide on Financial Soundness Indicators, views a loan to be nonperforming when payments of interest and/or principal are past due by 90 days or more, or interest payments equal to 90 days or more have been capitalized, refinanced, or delayed by agreement, or payments are less than 90 days overdue, but there are other good reasons such as a debtor filing for bankruptcy to doubt that payments will be made in full" (IMF, 2005).

Furthermore, the term Non-Performing Loans is used interchangeably with Bad loans and impaired loans as identified in Fofack (2005). Berger and De young (1997) also describe these types of loans as problem loans. In a broad context, loans that are outstanding in both interest and principal for a period of time contrary to terms and conditions spelt out in the loan agreement are considered as non-performing loans. Available literature gives varied descriptions of non-performing loans. Again, Non-performing loans are defined as those financial assets from which banks no longer receive interest and/or installment payments as initially or beforehand booked.

They are referred to as non-performing because the loan ceases to generate income for the bank. According to Choudhury et al., (2002) non-performing loan is not a multiclass concept. This is mainly because nonperforming loans can be classified into different varieties usually based on the duration it has been overdue. Non-performing loans are viewed as a typical by-product of a financial crisis: they are not a main product of the lending function but rather an accidental occurrence of the lending process, one that has enormous potential to deepen the severity and duration of

financial crisis and to complicate macro-economic management (Woo, 2000). This is because nonperforming loans can bring down investors' confidence in the banking system, piling up unproductive economic resources even though depreciations are taken care of, and impeding the resource allocation process. In a bank-centered financial system, nonperforming loans can further thwart economic recovery by shrinking operation margin and eroding the capital base of the banks to advance new loans.

This is sometimes referred to as credit crunch (Bernanke et al., 1991). In addition, non-performing loans if created by the borrowers willingly and left unresolved, might act as a contagious financial malaise by driving good borrowers out of the financial market. Muniappan (2002) asserts that a bank with high level of nonperforming loans is forced to incur carrying costs on non-income yielding assets that not only strike at profitability but also at the capital adequacy of a bank, and in consequence, the bank faces difficulties in augmenting capital resources. Bonin and Huang (2001) indicate that the profitability of banking crises increases if financial risk is not eliminated quickly. Such crises not only lower living standards but can also eliminate many of the achievements of economic reform overnight.

Alton and Hazen (2001) described non-performing loans as loans that are ninety days or more past due or no longer accruing interest. Caprio and Klingebiel (1990) cited in Fofack (2005), consider non-performing loans as loans which for a relatively long period of time do not generate income, that is both the principal and interest on these loans remain unpaid for at least 90 days. A non-performing loan may also refer to one that is not earning income and full payment of principal and interest is no longer anticipated, principal or interest is 90 days or more or the maturity date has passed and payment in full has not been made.

2.7 Factors that Influence Non-Performing Loans

2.7.1 Loan Amount

Larger loans have greater risk exposure, so the variable cost per currency is higher (Schreiner, 2001). If lenders do not take extra care, there could be more loan defaults. Greater loan size means less depth of outreach for borrower, but usually means more profitability for the lender (Schreiner, 2001). Schriner (2001), points out that average balance, a proxy for depth of outreach is directly proportional to revenue and default risk. The amount of loans could be a factor causing NPLs as it directly relates to risk.

Many lenders have problems with the repayments of clients whose loans issued exceed their capacity to repay (Wright, 2001). Higher loan size on the average may imply overestimation of borrowers' repayment capacity. On the other hand, higher loan size could mean that borrowers have higher capacity to earn and to repay the loans.

The loans that is too large for business needs may result in the use of loans for personal needs and results in the inability to pay from income (Norell, 2002). Friends of credit officers or privileged figures are usually the ones who receive large size loans based on favoritism, overlooking the capacity to pay back.

Khandker (1998) claimed that loan recovery rate for larger loans may be lower than small loans. One of the reasons for the possible relationship between high repayment rate and small loans could be higher risk distribution. The small size of loans reduces credit risk for new borrowers (Holt and Ribe, 1991). A sound credit record should be built before bigger loans are granted to customers. It may be an important incentive for the customers to receive more loans in the future if they have good payment records and lender tend to award higher loans to those with good credit history.

2.7.2 Management Information Systems

Management information systems are essential for accurate data and monitoring of borrowers' progress (Sacay and Randhawa, 1995). There should be effective management information systems in tracking payments, due loans, and overdue loans in order to systematically monitor loan performance (Yaron, et.al., 1997). Loan collection may be affected by the quality of loan officers. Poor screening and insufficient monitoring of loans affect the quality of loans (Holt and Ribe, 1991).

2.7.3 Policy and Objectives

Clear policy has to be communicated well among the staff and clients with proper signals. Without clear policy, communicated objectives may not be set clearly or not taken seriously. Unclear objectives on a loan collection, for example, may result in low quality of loan portfolios. Without clear objectives of outreach, loan officers may not concentrate on serving the target group (Holt and Ribe, 1991).

2.7.4 Government Interventions

Interventions may be based on political motives. Unprofitable special programs are often imposed on lenders owned by the government. Interest payments are often remitted or loans are written off for political reasons and may create a culture of default (Khandker, 1998). Direct interventions should be implemented either to address specific market failures or to reduce poverty, furthermore the effectiveness of the intervention should always be measured against the objective (Yaron, et al., 1997).

Borrowers may take loans less seriously since the rate is lower than the market rate and money may not be used for the best investment available in the market. However, lower interest rates may be helpful for small borrowers who may not know many high return investment opportunities, and for lenders, to expand credit to its priority sectors without paying sufficient attention to loan recovery (Khandker, 1998). Government

interventions could reduce the autonomy of lending institutions since they have to comply with the government requirements.

2.7.5 Interest Rates

The demand for loans may not be significantly affected by the level of interest rates (Rhyne, 1998), but the interest rate setting is related to client selection (Meyer, 2000). Borrowers with more promising projects might be selected at reasonable market rate. Loan collection performance might be better if borrowers with poor projects are not selected. Subsidized rates lead to rationing, which tends to favor the wealthy and politically connected and borrowers might not take loans seriously enough (Muraki, et al., 1997). Borrowers may take loans less seriously since the rate is lower than the market rate and money may not be used for the best investment available in the market. However, lower interest rates may be helpful for small borrowers who may not know many high return investment opportunities.

2.8 Five Cs of Non-Performing or Bad Loans

As noted by MacDonald (2006), there are five Cs of bad credits that represent the issues used to guard against/prevent bad loans.

2.8.1 Complacency

This is the first of the Cs, which refers to the tendency to assume that because of the things were good in the past, they will be good in the future. For instance, assuming the past loan repayment success since things have always worked out in the past.

2.8.2 Carelessness

This indicates the poor underwriting typically evidenced by inadequate loan documentation, lack of current financial information or other pertinent information in the credit files, and lack of protective covenants in the loan agreement. each of these

makes it difficult to monitor a borrower`s progress and identify problems before they are unmanageable.

2.8.3 Communication Ineffectiveness

This is the inability to clearly communicate the bank`s objectives and policies. This is when loan problem can arise. Therefore, the bank management must clearly and effectively communicate and enforce the loan policies and loan officers should make the management aware of specific problems with existing loans as soon as they appear.

2.8.4 Contingencies

This refers to the lenders` tendency to play down or ignore circumstances in which a loan might be in default. It focuses on trying to make a deal work rather than identifying down side risk.

2.8.5 Competition

This involves the act of following the competitors` action rather than monitoring the bank`s own credit standards. Banks, however, still have required expertise, experiences, and customer focus to make them the preferred lender for many types of loan. Lending is not just a matter of making loan and waiting for repayment. Loan must be monitored and closely supervised to prevent loan losses (MacDonald, 2006).

2.9 Bank of Ghana Report on Non-Performing Loans

The latest Bank of Ghana report on financial Stability, (July 2017) report covering operations of bank's for the first seven months of the year's Non-Performing Loans (NPLs) has hit GHC8.1 billion. The issues of bad and NPLs according to the report had been on the increase for the previous year with the general anxiety that many banks are on verge of collapse. The report revealed that, the NPLs actually went up by almost 70 percent from GHC3.6 billion cedis in 2015.The BoG attributes the

worsening NPL ratio, to number of factors, this includes the general slowdown in the economy, increasing cost of production due to high utility tariffs and loan reclassification by some banks. A breakdown of these NPLs rather showed that the private sector accounted for a larger chunk of the debts, instead of government, as it has often been blamed rising bad debts of most of the commercial banks. Credit to private sector contributed 85.8 percent of the total banking sector's NPLs as at July 2016, whiles the public sector accounted for 14.2 percent. The level of NPLs associated with the private enterprises was driven mainly by indigenous enterprises. Despite this rising NPLs, BoG is confident of a sound banking sector. For instance, Annual growth in total assets of the industry picked up in July 2016 compared to the previous year and was largely accounted for by the significant increase in banks' investments in bills and securities as well as the sharp increase in foreign assets" according to the BoG report.

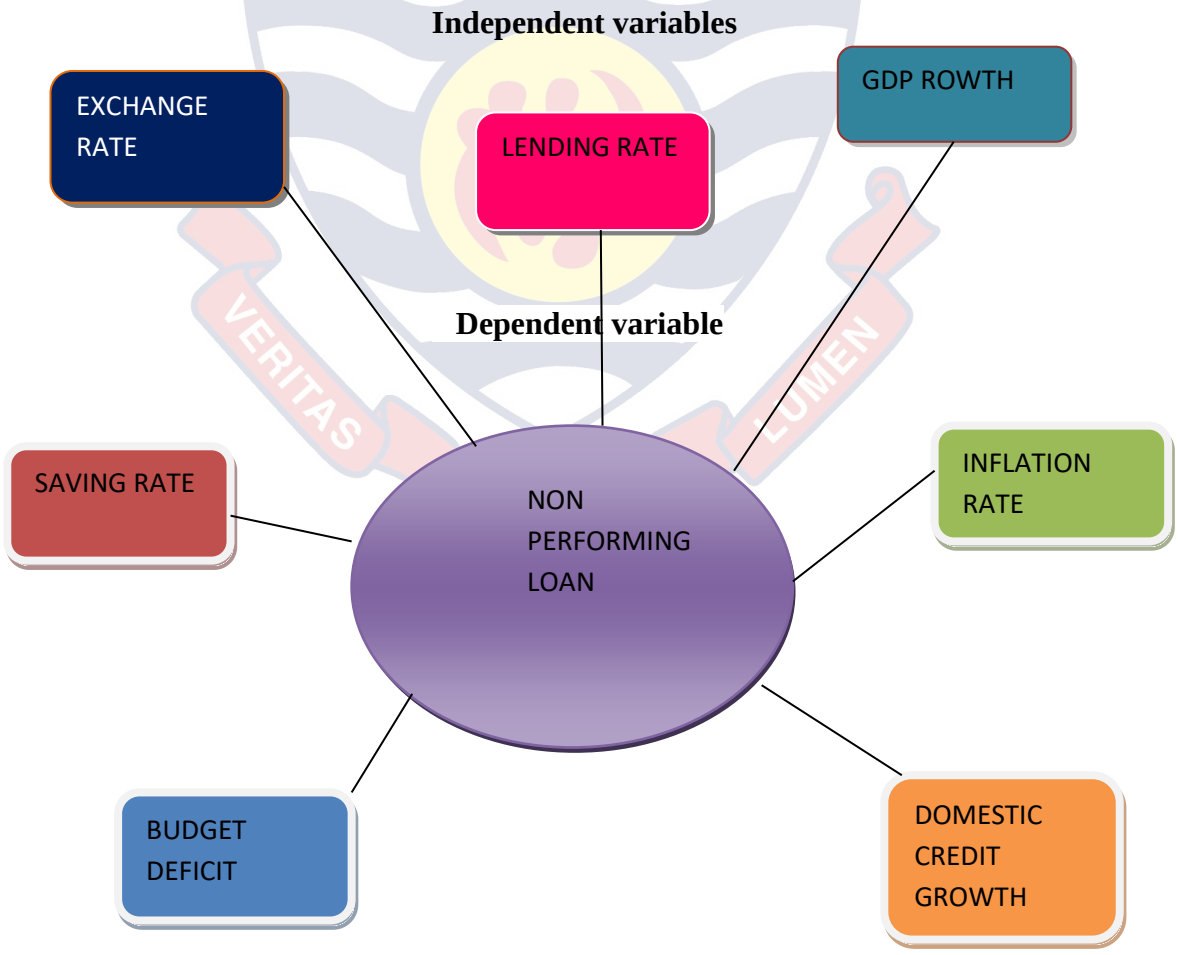
The resultant increase in total assets from the rise in investments and foreign assets was moderated by the decline in the growth of banks' advances to its customers due to the rise in their non-performing loans.

The outlook for the industry is positive, according to the Bank of Ghana, with the restructured Volta River Authority (VRA) debt and commencement of payments. Similar restructuring arrangements have been initiated for debts owed by Bulk Oil Distribution Companies (BDCs) to the banks. Additionally, government's efforts to wean state owned enterprises (SOEs) off its balance sheet as well as the on-going fiscal consolidation is likely to minimize Government's indebtedness to banks. The Bank of Ghana added that "All these arrangements are expected to reduce the size of banks' impaired loans, improve the industry's solvency as well as liquidity, and in turn boost performance of the banking industry". These efforts, together with improved loan

recovery efforts and improvement in the macro economy, will boost credit delivery to facilitate economic growth, the bank concluded in the report.

2.10 Conceptual Framework

According to Mugenda and Mugenda (2008), a conceptual framework is defined as a system of variables operationalized by the researcher in an attempt to realize the set objectives. The independent variables in this research are GDP growth, lending rates, Exchange Rates, Inflation Rate, Savings rate, Budget deficit and Domestic credit growth while the dependent variable is non-performing loans (NPL). Figure 2.1 represents the research structure of non-performing loans (NPL) as the dependent variable and their interplay with the independent variables.



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter highlights the research methodology used for the research. Leedy and Ormrod (2010) in confirmation with Babbie and Mouton (2008) explained research methodology as the researcher's general approach in carrying out the research project. Mouton (2001) viewed research methodology as focusing on the research process and the kind of tools and procedures to be used. Hence the chapter covered data sources, definitions and description of the explanation variables. It comprises the research design, target population, data collection techniques procedures.

3.2 Research Design

Research design, according to Welman et al. (2009), is best described as the overall plan, according to which the respondents of a proposed study are selected, as well as the means of data collection or generation, Burns and Grove (2003) also defined a research design as the laid down plan for conducting a study with maximum control over factors that may interfere with the validity of the findings. Parahoo, (1997) also describes the research design as a plan that describes how, when and where data are to be collected and analyzed. According to Cooper and Schindler (2008), descriptive study is concerned with finding out the what, where and how of a phenomenon.

In lieu of all these the study adopted a descriptive cross-sectional survey because it is conducted across some selected universal banks at the same time. It enables the researcher to generalize the findings to a larger population. The study employed quantitative analysis. The choice of the methodology was informed by the data generating process.

3.3 Population and Sample

According to Churchill et al. (2010) the target population is that part of the total population (universe) to which the study is directed. This is the group from which the sample will be drawn. There are thirty-four (34) universal banks in Ghana. Out of this sample, ten universal banks are randomly selected. The study also adopts the use cross sectional data from the ten (10) universal banks covering the annual period from 2012 to 2016.

3.4 Data Source

The study used secondary data drawn from the Bank of Ghana (BOG), Ghana Statistical Service (GSS) and Ghana Association of Bankers (GAB). Data on the credit risk was obtained from the Annual banks supervision reports by the Bank of Ghana.

3.5 Data Analysis

In order to explain the effect of non-performing loans on the economic performance of the selected universal banks in Ghana, the study used the ordinary least squares model (OLS). Under this approach, the OLS's main assumption is that, the errors must be uncorrelated. The main explanatory variable of interest is GDP growth, however, other control variables are present in the estimation.

$y_t = \alpha + x_t \beta + \varepsilon$

Consistent with, Brooks, (2008), the model is specified;

Model Specification.

$$LnNPL_t = \alpha + \beta_1 LnGDPGR_t + \beta_2 LnNPL_t + \beta_3 LnEXCH_t + \beta_4 LnINFLR_t + \beta_5 LnDC_t + \beta_6 LnNSAVINGS + \beta_7 LnBDEFICT + \varepsilon_t$$

Where, NPL_t = Non-performing loans at time, as the ratio between outstanding principal balance of loans past due more than (90) days and Outstanding principal balance of all loans.

$GDPGR_t$= GDP growth, size of Ghana economy adjusted for price changes and population size.

LIR_t = Lending rates, amount charged, expressed as a percentage of principle, by a lender to a borrower for the use of assets.

$EXCH_t$= Exchange Rates at time, this is the price of a Ghana Cedis in terms of another currency

$INFLR_t$ = Inflation Rate at time, increase in the general price level and is typically expressed as an annual percentage rate of change

NSAVINGS = Savings rate at time

BDEFICIT = Budget deficit at time

DC_t= Domestic credit growth to private sector by universal banks at time

ε_t =the error term is assumed to be normally and independently distributed with mean zero and constant variance.

α_t = is the constant for the model. It measures the credit risk when all the explanatory variables of the model are equated to zero.

β's = are the coefficients of the explanatory variables.

CHAPTER FOUR

PRESENTATION OF DATA AND DISCUSSION OF FINDINGS

4.1 Introduction

This chapter presents the analysis of data and interpretation of the data gathered from the Bank of Ghana (BOG), Ghana Statistical Service (GSS) and Ghana Association of Bankers (GAB). Also, data about credit risk was obtained from the annual banks supervision reports by the Bank of Ghana. The purpose of this study was to determine the effect of economic factors on non-performing loans of selected universal banks in Ghana.

The chapter consists of three (3) main sections namely descriptive analysis, correlation analysis and regression analysis.

4.2 Presentation of Descriptive Analysis

This section presents the results from the analysis of the data gathered in table 4.1.

Table 4.1 Descriptive Statistics

Variable	Mean (Million GHC)	Standard deviation	Minimum (Million GHC)	Maximum (Million GHC)
NPL	16.9	0.195	12	17.29
GDP	5.52	1.982	4.7	8.8
LIR	9.441	1.421	21.24	42.84
EXCH	2.532	1.472	1.8	3.91
INFLN	4.246	0.794	7.07	17.46
NSAVING	1.658	0.654	7.5	8.38
BDEFICIT	2.230	0.912	-5.37	-11.29
DC	7.632	1.52	15.64	20.712

Source: Field study (2018)

The results in table 4.1 indicate that Non-performing loans had a mean score of 16.9, a standard deviation of 0.195 with a minimum value for non-performing loan of 12 and a maximum value of 17.29.

Furthermore, the gross domestic product had a mean score of 5.52 and a standard deviation of 1.982. During the period between 2012-2016, the minimum rate of gross domestic product recorded was 4.7 and the maximum value recorded was also 8.8.

In addition, the lending rate had a mean score of 9.441 and the standard deviation was 1.421. Also, the lowest lending rate during the period understudied was 21.24 while the highest leading rate had a value of 42.84.

Again, with the exchange rate, the mean score was 2.532 and the standard deviation was 1.472. The minimum value for the exchange rate was 1.8 and the maximum value was 17.46.

Moreover, inflation rate had a mean score of 4.246 and a standard deviation of 0.794. The minimum rate for the period under studied was 7.07 and the maximum value of inflation recorded was 17.46.

The result showed that savings had a mean score of 1.658 and a standard deviation of 0.654. Also, the minimum value was 7.5 and the maximum value was 8.38. With the budget deficit for the period understudy, the mean score was 2.230 and the standard deviation was 0.912. The minimum value for the period was -5.311 and the maximum value for the period was -11.29.

Finally, domestic credit growth to private sector had a mean score of 7.632 and the standard deviation was 1.52. The minimum value for the domestic credit growth was 15.64 while the maximum value for domestic credit growth during the period 20.712.

4.3 Correlation Analysis

Correlation is another way of assessing the relationship between variables. To be more precise, it measures the extent of correspondence between the ordering of two more variables. In this study, correlation analysis was used to explain the relationship between the independent variables and the dependent variable. The variable in this study included inflation rate, budget deficit, saving, domestic, exchange rate, lending rate, gross domestic product and non-performing loans. Also, the correlation analysis shows that non-performing loans has a positive influence on lending rate, thus (r=.202, p=0.02). The correlation analysis also examined the relationship between gross domestic product and lending rate. The result which is (r=0.059, p=0.572), implies that there is positive relationship between non-performing loans and exchange rate. However, there is no significant relationship between non-performing loans and exchange rate. The study further examined the relationship between non-performing loans and domestic credit growth to private. The correlation analysis shows there is a positive (r=259, p=0.00), and significant relationship between non-performing loans and domestic credit

The study also examined the relationship between lending rate and budget deficit. The result (r=259, p=0.00), illustrate that there is a significant and positive relationship lending rate and budget deficit. The correlation analysis was used to examine the relationship between exchange rate and saving. The result which is (r=656, p=0.00), showed that exchange rate has a positive and significant relationship on saving.

The correlation analysis further examined the relationship between gross domestic product and domestic credit growth to private. The result which is (r=.149, p=0.00), shows that there is a positive and significant relationship between gross domestic product and domestic credit growth to private. The study further examines the

relationship between exchange rate and domestic credit growth to private. The result (r=514, p=0.00) indicates that there is a positive and significant relationship between exchange rate and domestic credit growth to private.

Table 4.2 Correlation analysis

Variables		1	2	3	4	5	6	7	8	9
Non-performing loan	Pearson Correlation	1								
	Sig. (2-tailed)									
Gross domestic product	Pearson Correlation	.640**	1							
	Sig. (2-tailed)	0								
Lending rate	Pearson Correlation	.202**	0.059	1						
	Sig. (2-tailed)	0.010	0.562							
Exchange rate	Pearson Correlation	.272**	0.059	1.000**	1	.				
	Sig. (2-tailed)	0.006	0.562	0						
Saving	Pearson Correlation	0.139	0.092	.394**	.656**	1				
	Sig. (2-tailed)	0.167	0.361	0.00	0.00					
Budget Deficit	Pearson Correlation	.226*	0.143	.381**	.537**	.616**	1			
	Sig. (2-tailed)	0.024	0.154	0.00	0.00	0.00				
Domestic Credit Growth to private	Pearson Correlation	.259**	0.149	.399**	.514**	.580**	.504**	1		
	Sig. (2-tailed)	0.000	0.139	0.00	0.00	0.00	0.00			

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Source: Field study (2018)

4.3.1 Response to Objective 1

In response to the objective as to why firms in the banking industry are unable to recover debts, a number of factors that contribute to it have been identified through this study.

To begin with, the higher the loan amount, the greater the risk exposure and variable cost per currency. Many lenders who issue grander loan amounts expect higher returns, however, if the loans issued exceed the capacity of the borrower to repay, a bad loan may materialize. In Ghana, this is a major contributor to why financial firms are unable to recover debts as poor loan assessments are done and great loan amounts are disbursed all in the scope of expecting bigger returns.

Furthermore, the reluctance of firms to invest in efficient management information systems, especially in Ghana has contributed to their ineffectiveness in recovering bad loans. Management information systems are essential for precise data and monitoring of borrowers' progress. There should be effective management information systems in tracking payments, due loans, and overdue loans in order to systematically monitor loan performance. A majority of financial institutions in Ghana are gradually bridging this gap, however, it is not as widespread as desired. Some financial firms still rely on outdated methods of data records and monitoring.

Additionally, several universal banks in Ghana do not give adequate training to their staff/loan officers and thus leads to loan policies being poorly explained and further making loan recovery even more difficult. Poor loan assessments and appraisals are done leading to granting unqualified clients loans which they eventually misappropriate and are unable to repay.

Policies and objectives regarding loans and loan recovery must be spelt out clearly to both staff and borrowers/clients alike to ensure that each party is fully aware of their obligation(s). Without clear objectives of outreach, loan officers may not concentrate on serving the target group. Borrowers may also misappropriate loans and use them for other purposes outside the scope of the loan.

Again, the government may impose unprofitable special programs on lenders which they own. Interest payments are often remitted or loans are written off for political reasons and may create a culture of default. In Ghana, this is a major factor why certain high profile banks which are owned wholly or partially by the government/politicians have been closed down or consolidated.

Moreover, the demand for loans may not be significantly affected by the level of interest rates, but the interest rate setting is related to client selection. Borrowers with more promising projects might be selected at reasonable market rate. Loan collection performance might be better if borrowers with poor projects are not selected. Subsidized rates lead to rationing, which tends to favor the wealthy and politically connected and borrowers might not take loans seriously enough. Borrowers may take loans less seriously since the rate is lower than the market rate and money may not be used for the best investment available in the market.

4.4 Regression analysis for Economic Factors

In order to examine the relationship between the variables in the study, the researcher developed a statistical regression model to examine the relationship between the variables. The analysis expressed here is in response to objective 2, being investigating the influence of economic factors (inflation, interest rates, exchange rates etc.) on NPLs of selected universal banks in Ghana.

4.4.1 Regression Analysis between Inflation rate and Non-Performing Loan

The Model summary in Table 4.1 shows the R squared to be 0.123. This indicates that 12.3% non-performing loan can be used to explain inflation rate in the country. In addition, the F ratio 26.793 implies the model is significant at 0.02. This is because (p-valve=0.012) > 0.05. This implies that there exists a significant relationship between inflation and non-performing loan. This result is in line with research works by Dewan et al (1999) and Dewan & Hussein (2001), which concluded that changes in the inflation rate, which affect gross domestic product, had a significant influence on non-performing loan.

Table 4.3 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.351[a]	.123	.105	.89370

a. Predictors: (Constant), Inflation rate

Table 4.3.1 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.382	1	5.382	26.739	.002[b]
	Residual	38.338	48	.799		
	Total	43.720	49			

a. Dependent Variable: Non-performing loan

b. Predictors: (Constant), Inflation

4.4.2 Regression Analysis between Budget Deficit and Non-Performing Loan

Information in the Model summary indicates that the value of R^2 of 0.82 This shows that 82% of the variation in budget deficit can used to explain non-performing loans. The overall regression results are shown in the ANOVA table. The regression model is statistically significant F-ratio = 7.832 and the model is significant at 0.04. This implies that budget deficit has a significant influence on non-performing loan.

Table. 4.4 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.304[a]	.082	.081	.49968

a. Predictors: (Constant), Budget deficit

Table 4.4.1 ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.956	1	1.956	7.832	.000[b]
	Residual	19.226	77	.250		
	Total	21.181	78			

a. Dependent Variable: Non-performing loan
b. Predictors: (Constant), Budget deficit

4.4.3 Regression Analysis between Exchange Rate and Non-Performing Loan

Information provided in the model summary tables revealed that 0.558, depicting 55.8% of variance in exchange rate can be used to explain non-performing loan of the financial institution. This implies the exchange rate has an influence on non-performing loan. In addition, exchange rate influence non-performing loan. This is because the ANOVA table shows a (p-value= 0.00< 0.05). The implication is that exchange rate has a significant impact on the non-performing loan.

Table 4.5 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.747[a]	.558	.534	.36605

a. Predictors: (Constant), Exchange rate

Table 4.5.1 ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13.863	1	13.863	191.098	.000[b]
	Residual	22.023	78	.282		
	Total	35.886	79			

a. Dependent Variable: Non-performing loans

b. Predictors: (Constant): Exchange rate

4.4.4 Regression Analysis between GDP Growth and Non-Performing Loan

The study sought to determine the extent to which GDP growth has an impact on non-performing loan. The above regression analysis was to identify the relationship between GDP growth and non-performing loan. The Model summary shows R^2 of 0.23, The R^2shows the amount of variation in one variable that is accounted for by another variable. In this case, 23% total variation in GDP growth can be used to explain non-performing loan of a bank.

The ANOVA which is the overall regression model shows F ratio for the regression model. The Larger the F ratio, the more variance in the dependent variable can be explained by the independence variable. The F ratio 39.038 indicates that the model is significant at 0.03. This is because p-valve=(0.03 < 0.05). This implies that GDP growth has a significant influence on non-performing loan.

Table 4.6 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.218[a]	.023	.026	.67263

a. Predictors: (Constant), GDP growth

Table 4.6.1ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.091	1	1.091	39.038	.003[b]
	Residual	21.804	76	.287		
	Total	22.895	77			

a. Dependent Variable: Non-performing loan

b. Predictors: (Constant) GDP growth

4.5 Regression analysis for Bank Related Factors

The regression analysis expressed here is in response to objective 3 being, examining the relationship between bank related factors (lending rate, savings, credit growth) and non performing loans.

4.5.1 Regression analysis between non-performing loan and lending rate

From the regression analysis below, the relationship between non-performing loan and lending rate was examined. The Model summary (Table 4.6) shows the R square to be 0.93. This indicates that 93% of non-performing loan can be explained by lending rate. This indicates a good fit between non-performing loan and lending rate. The F ratio is 8.903 in the ANOVA table (Table 4.6.1), and it indicates that the model is significant at 0.004. This is because (p-valve=0.004) > 0.05. This implies that the relationship between non-performing loan and lending rate is statistically significant.

Table 4.7 Model Summary

In the Model summary table, the value of R^2 determined the amount of variance in the dependent variables which is explained by the independent variable and the F-ratio in the ANOVA table explains the overall significance of the model.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.304[a]	.93	.074	.85051

a. Predictors: (Constant), Non-performing loan

Table 4.7.1 ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.548	1	3.548	8.903	.004[b]
	Residual	34.722	48	.723		
	Total	38.270	49			

a. Dependent Variable: Lending rate

b. Predictors: (Constant), Non-performing loan

4.5.2 Regression Analysis between Credit Growth and Non-Performing Loan

The regression analysis was used to identify the effect of credit growth on non-performing loan. The Model summary in Table 4.7 shows R^2 of 0.48. In this case, 48% of total variation in credit growth can be used to examine non-performing loan. The F ratio 103.803 indicates that the model is significant at 0.05. This is because p-valve=(0.00) > 0.05. This implies that credit growth has a significant influence on non-performing loan.

Table 4.8 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.218[a]	.048	.035	.53562

a. Predictors: (Constant), Credit growth

Source: Field study (2018)

Table 4.8.1 ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.091	1	1.091	103.803	.000[b]
	Residual	21.804	76	.287		
	Total	22.895	77			

a. Dependent Variable: Non-performing loan

b. Predictors: (Constant), Credit growth

4.5.3 Regression Analysis between Saving and Non-Performing Loan

The regression analysis was used to examine the relationship between saving and non-performing loan. The Model summary shows R^2 of 0.48, The R^2shows the amount of variation in one variable that is accounted for by another variable. In this case, 48% total variation saving can be used to explain non-performing loans of banks. The ANOVA which is the overall regression model shows F ratio for the regression model. The Larger the F ratio, the more variance in the dependent variable can be explained by the independence variable. The F ratio 3.803 indicates that the model is significant at 0.05. This is because p-valve=(0.03 < 0.05). This implies that saving has a significant influence on non-performing loans in the among financial institutions.

Table 4.9 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.218[a]	.048	.035	.53562

a. Predictors: (Constant), Saving

Table 4.9.1 ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.091	1	1.091	123.803	.003[b]
	Residual	21.804	76	.287		
	Total	22.895	77			

a. Dependent Variable: Non-performing loan

b. Predictors: (Constant), Saving

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The chapter presents the summary of the findings of the study, conclusions and makes the appropriate recommendations based on the findings of the study. It begins with a summary of findings followed by the conclusion.

5.2 Summary of the Findings

The main aim of this study was to examine the effect of economic factors on non-performing loans of some selected universal banks in Ghana. As such, secondary data was employed for the study. The data collected was from 2012-2016. The variables in the study includes non-performing loan, gross domestic product, lending rate, exchange rate, inflation rate, saving rate, budget deficit and domestic credit growth to private. The data was sourced from the bank's annual reports.

In examining the effect of economic factors on non-performing loans of the ten selected universal banks in Ghana, the empirical results revealed that non-performing loans was statistically significant at 1% (0.01) including gross domestic product, lending rate, exchange rate, savings, budget deficit and domestic credit growth.

This study employed regression model to examine the influence of one variable on another variable. The regression analysis examined the relationship between non-performing loans and lending rate. The result shows that there is a positive and significant relationship between non-performing loans and lending rate. The implication is that, most loans will be defaulted on if the lending rate is very high and vice versa. The relationship between inflation and non-performing loan also shows that

inflation rate has an effect on non-performing loan. High inflation rate results in an increase the standard of living in the country and causes a reduction in peoples' spending power. This affects the economic growth of the country and can result in non-performing loans. The result further indicated that there is a significant positive relationship between credit growth, savings, GDP growth, exchange rate, budget deficit and non-performing loans.

Rapid credit growth may lead to an adverse selection, and may be associated with reduced credit quality as risk taking intensifies during such periods, adversely affecting the level of non performing loans (Erdinc and Abazi, 2014).

The results show that GDP growth has a significant positive impact on non-performing loans. This finding indicates that an improvement in the real economy, though may enhance the debt-servicing capacity of the borrower, in this case, it tends to contribute to higher non-performing loans. Such a result was unanticipated as it goes contrary to many previous studies including Ranjan and Dhal (2003), Fofack (2005), Chase et al. (2005), Khemrajand Pasha (2009), Greenidge and Grosvenor (2010), Guy and Lowe (2010), Jordan and Tucker (2013) and Prasanna (2014) but consistent with Guy and Lowe (2011) and Rajha (2016).

5.3 Conclusion

The following conclusions are made based on the findings of the study: It can be concluded based on the empirical results that economic factors have a positive significant impact on non-performing loans, which in turn has a positive and statistically significant influence on the economic growth and performance of the selected universal banks. This signifies that a reduction in non-performing loans will improve the financial performance of the financial institutions. The results of the

correlation model revealed that non-performing loans, gross domestic product, lending rate, exchange rate, saving, budget deficit and domestic credit growth to private sectors were all statistically significant at 1% significance levels respectively. In addition, the study concluded that there is a significant and positive relationship between inflation rate and non-performing loans, and, credit growth and non-performing loans. In addition, the study found the relationship between non-performing loans and lending rate to be statistically significant.

5.4 Recommendations

In line with the adverse effects posed by non- performing loans, the following recommendations are proposed to reduce the problem of non-performing loans. The financial institutions should limit investment in the loan portfolio by providing loans to the project with attractive returns but with low risks. The management should ensure that investment decisions in the future will consider the need to streamline proportions of all investment assets held by the Fund to conform to the strategic assets Allocation mix as guided in the Fund's Investment Policy. Additionally, training on loan appraisal skills should be provided to loan or investment officers by ways of courses, in-service training, field attachments and workshops. Loan officers should avoid descriptive loan analysis and instead, use both quantitative and qualitative analysis that would help to establish wide range of loan assessments. In addition, loan officers should be able or be in the position to identify associated risks. Risk assessment being a sensitive and crucial factor may be bypassed most of the time. In order to avoid this, satisfactory guidelines should be in place to be followed to assess risk.

The study therefore recommends that; loan recovery should not be a high priority objective for any institution. As the recovery period of the loan delays, the possibility

of getting the fund back becomes dimmer. Hence, the act of relaxation must be strictly discouraged. Most of the financial institutions' loans become defaulted on due to the lingering process. In this respect, the concept of engaging a loan recovery agency is paramount and necessary.

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APPENDICES

APPENDIX I – Financial Data Derived from the Financial Statements

bank	index	roa	roe	eoi	car	aod	aq	niita	size	gdp	ms	infl
ecobank	1	0.045	0.346	0.31	0.097	0.659	0.002	0.043	12.825	6.4597	9.7749	10.7327
ecobank	1	0.053	0.388	0.306	0.099	0.483	0.002	0.041	12.635	6.4	9.6387	10.9152
ecobank	1	0.055	0.432	0.289	0.087	0.468	0.014	0.046	12.505	5.9	9.4946	15.1182
ecobank	1	0.053	0.398	0.274	0.087	0.46	0.01	0.049	12.367	5.6	9.4173	12.6246
ecobank	1	0.061	0.396	0.289	0.09	0.491	0.021	0.059	12.226	5.2	9.3126	26.6749
gcb	2	0.034	0.151	0.199	0.144	0.885	0.011	0.035	13.058	6.4597	9.7749	10.7327
gcb	2	0.05	0.287	0.146	0.115	0.574	0.005	0.043	12.89	6.4	9.6387	10.9152
gcb	2	0.039	0.181	0.167	0.12	0.542	0.029	0.041	12.768	5.9	9.4946	15.1182
gcb	2	0.042	0.284	0.22	0.103	0.491	0.047	0.034	12.746	5.6	9.4173	12.6246
gcb	2	0.042	0.198	0.24	0.093	0.551	0.064	0.036	12.705	5.2	9.3126	26.6749
nib	3	0.018	0.082	0.376	0.169	0.793	0.037	0.049	12.561	6.4597	9.7749	10.7327
nib	3	0.012	0.113	0.416	0.14	0.811	0.008	0.037	12.447	6.4	9.6387	10.9152
nib	3	0.039	0.258	0.348	0.12	0.719	0.082	0.041	12.279	5.9	9.4946	15.1182
nib	3	0.048	0.303	0.305	0.115	1.745	0.046	0.056	12.168	5.6	9.4173	12.6246
nib	3	0.041	0.25	0.341	0.126	1.082	0.089	0.063	12.018	5.2	9.3126	26.6749
sgssb	4	0.037	0.198	0.183	0.14	0.759	0.026	0.056	12.621	6.4597	9.7749	10.7327
sgssb	4	0.039	0.173	0.21	0.157	0.599	0.026	0.055	12.564	6.4	9.6387	10.9152
sgssb	4	0.2	1.327	0.217	0.136	0.694	0.007	0.055	12.465	5.9	9.4946	15.1182
sgssb	4	0.069	0.288	0.225	0.151	0.471	0.03	0.067	12.387	5.6	9.4173	12.6246
sgssb	4	0.055	0.269	0.271	0.156	0.591	0.075	0.06	12.32	5.2	9.3126	26.6749
stanbic	5	0.042	0.563	0.316	0.074	0.999	0.002	0.068	12.547	6.4597	9.7749	10.7327
stanbic	5	0.037	0.32	0.273	0.113	0.698	0.009	0.031	12.131	6.4	9.6387	10.9152
stanbic	5	0.032	0.239	0.349	0.128	0.407	0.067	0.051	11.945	5.9	9.4946	15.1182

stanbic	5	0.022	0.159	0.305	0.128	0.366	0.065	0.048	11.869	5.6	9.4173	12.6246
stanbic	5	0.03	0.102	0.324	0.196	0.339	0.029	0.047	11.621	5.2	9.3126	26.6749
barclays	6	0.037	0.322	0.24	0.079	0.89	0.009	0.026	13.076	6.4597	9.7749	10.7327
barclays	6	0.07	0.503	0.185	0.096	0.741	0.009	0.047	12.815	6.4	9.6387	10.9152
barclays	6	0.098	0.622	0.155	0.113	0.786	0.001	0.055	12.694	5.9	9.4946	15.1182
barclays	6	0.09	0.518	0.141	0.107	0.653	0.022	0.055	12.68	5.6	9.4173	12.6246
barclays	6	0.087	0.548	0.15	0.103	0.575	0.033	0.058	12.578	5.2	9.3126	26.6749
adb	7	0.025	0.122	0.267	0.201	0.845	0.017	0.062	12.673	6.4597	9.7749	10.7327
adb	7	0.028	0.155	0.263	0.169	0.644	0.053	0.054	12.613	6.4	9.6387	10.9152
adb	7	0.024	0.121	0.319	0.181	0.696	0.05	0.052	12.536	5.9	9.4946	15.1182
adb	7	0.04	0.197	0.332	0.181	0.527	0.122	0.079	12.491	5.6	9.4173	12.6246
adb	7	0.029	0.17	0.319	0.155	0.57	0.11	0.047	12.476	5.2	9.3126	26.6749
hfc	8	0.025	0.172	0.577	0.124	1.326	0.012	0.033	12.412	3.9915	10.0144	19.2507
scb	8	0.021	0.208	0.521	0.073	1.661	0.016	0.021	12.576	8.4305	9.9184	16.5221
scb	8	0.027	0.247	0.477	0.081	1.226	0.015	0.017	12.206	6.4597	9.7749	10.7327
scb	8	0.015	0.113	0.486	0.101	1.189	0.01	0.016	12.03	6.4	9.6387	10.9152
scb	8	0.011	0.068	0.475	0.15	1.062	0.005	0.011	11.848	5.9	9.4946	15.1182
scb	8	0.035	0.168	0.49	0.163	1.333	0.01	0.012	11.773	5.6	9.4173	12.6246

Year	Lending Rate	Inflation Rate	Interest Rate Spread	Real Interest Rate	Central Bank's Policy Rate
2012	27.6	9.08	14.72	18.52	13.5
2013	18.2	8.58	9.29	9.62	12.5
2014	25.7	9.2	15.65	16.5	15
2015	25.21	11.1	12.86	14.11	16
2016	28.02	15.49	15.12	12.53	21