UNIVERSITY OF CAPE COAST

NON-PERFORMING LOANS AND PROFITABILITY OF COMMERCIAL BANKS IN GHANA: A STUDY OF ADB BANK – NKWANTA SOUTH

EMMANUEL LARTEY

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BY

EMMANUEL LARTEY

Dissertation submitted to the Department of Accounting, School of Business, College of Humanities and Legal Studies, University of Cape Coast in partial fulfillment of the requirements for the award of Master of Business Administration degree in Accounting.

AUGUST, 2020

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: ………………………

Name: Emmanuel Lartey

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 University of Cape Coast.

Supervisor's Signature……………………… Date …………………………

Name: Mr Emmanuel Arhin

ABSTRACT

The thrust of this dissertation was to evaluate the causes and effect of non-performing loans (NPLs) on the profitability of commercial banks in Ghana focusing on ADB Bank. Primary data was elicited using a structured interview questionnaire through direct. Secondary data was used to estimate the econometric model and variables adopted were; inflation, Gross Domestic Product (GDP), Return on Equity (ROE), lending rate and NPLs. Findings of the study revealed that, lending rate and economic growth (GDP) impacts positively on the profitability of ADB Bank while inflation rate and non-performing loans (NPLs) impacts negatively on profitability of ADB Bank. The study further found that, factors such as higher interest rate in ADB, late disbursement of loans, unfavourable loan sizes, lack of training for clients and after disbursement, poor appraisal, lack of proper monitoring, business failure, unforeseen contingencies, diversion of funds on the part of clients and unwillingness to clients to pay loans. Based on these findings, the study recommends that strong group should be encouraged should be encouraged by the ADB Bank to minimise loan default. Also, monetary and fiscal policy institutions in Ghana especially Bank of Ghana through its Monetary policy committee should adopt proactive and effective measures to tackle inflation in the country. The study further recommends that future studies be conducted into non-performing loans and profitability of commercial banks using cross-sectional data either within the country or the sub-region of West Africa.

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DEDICATION

To Dr. Hilarious Kosi Asiwome Abiwu

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ACRONYMS

Agricultural Development Bank	ADB
Augmented Dickey Fuller	ADF
Average Lending Rate	ALR
Bad loans	BAL
Bank of Ghana	BOG
Capital Adequacy Ratio	CAR
Central Bank of Nigeria	CBN
Chief Executive Officer	CEO
Consumer Price Index	CPI
Doubtful loans	DOL
Ghana Statistical Service	GSS
Global Financial Stability Report	GFSR
Gross Domestic Product	GDP
Inflation	INF
International Monetary Fund	IMF
Loan Deposit Ratio	LDR
Nigerian Deposit Insurance Corporation	NDIC
Non- Performing Loans	NPL
Non- Performing Loans Ratio	NPLR
Ordinary Least Square	OLS
Return on Asset	ROA
Return on Capital Employed	ROCE
Return on Equity	ROE
Small and Medium Scale Enterprise	SME

Statistical Package for Social Scientist	SPSS
Sub-standard loans	SUL

CHAPTER ONE

INTRODUCTION

The contribution of commercial banks is central to the economic development of Ghana. Especially, in the agricultural sector and small and medium enterprises the government and other stakeholders should endeavour to provide finance at a lower cost for business owners and farmers to expand their business. Nonetheless, commercial banks step in the situation to provide loans to these group and the result turn out to be misplaced priority. Most owners and farmers take loans from ADB Bank and are unable to pay all or not at all. Some factors may have caused loan default and the effect on profitability may not be encouraging. This study therefore, investigates into this matter and suggest solutions on new outcomes.

Background to the Study

The banking sector in every economy, both developed and developing serves as a wealth creating sector by providing short and long term loanable funds and other critical services to businesses, government and individual customers. Agreeably, Hamisu (2011) found that, a larger portion of businesses in Nigeria have been largely groomed and driven by credit facilities from the banks. In Ghana, a study by Yeboah, Asirifi, and Adigbo (2014) revealed that, the profitability of Small and Medium Scale Enterprises (SMEs) increases with funding from commercial banks as compared to other financial institutions. This and many other developments illustrates the critical role commercial banks or the banking sub-sector plays in stimulating growth and development in Ghana. Furthermore, according to Ghana Statistical

Service 2017 annual report, the financial sub-sector contributed 8.8% to gross domestic product in 2017 fiscal year.

Aside commercial banks providing credit facilities and other critical services to SMEs, government and households to promote economic growth, they also thrive on these services by charging fees, commissions and interest. Wondim (2015) argues that profit maximizing is a critical motivation factor behind commercial banks extending credit facilities and other critical services to SMEs, individuals and government. In line with this, Gyamfi (2012) found that the largest source of income to most commercial banks are their loan portfolio. The reason being that, enough revenue is generated on these loans through the charging of fees, commissions and interest. Intuitively, this goes to suggests that the very existence of commercial banks will be curtailed or negatively affected in a situation where most of the loans advanced resulted in bad assets or non-performing loans (NPLs). According to Gyamfi (2012), the higher the rate of NPLs, the lesser the loan income (revenue) accruing to commercial banks which subsequently leads to a reduction in their profitability.

Non-performing loans (NPLs) refers to financial assets on which banks no longer obtain interest or installment payments as planned (Lata, 2015). International Monetary Fund (IMF) on the other hand, gave an interesting and exhaustive definition of non-performing loans. According to the IMF, as captured in their Global Financial Stability Report (IMF-GFSR, 2013), non-performing loans refer to those loans on which the payment of principal and interest are past due by 90 days or beyond. Stated differently, loans from which not less than 90 days of interest imbursement have been capitalized, or delayed by arrangement. The IMF further argued that, non-performing loans could also be viewed as loans on which interest payments scheduled delayed less than 90 days but there exist every material evidence suggesting that repayment in full is impossible or uncertain.

The recent trend of non-performing loans in Ghanaian banking sector post a serious threat to their very existence. The banking sector report by the Bank of Ghana (BOG, 2020) revealed that, interest income as a portion on banks total revenue declined from 44.1% in June, 2018 to 36.2% in 2018. This was largely attributed to high rate of non-performing loans within the sector. Table 1 shows the year on year trend of NPLs ratio within the banking sector from 2012-2018.

Table 1: ADB Bank Financial Performance Highlights For Five Years

	2017	2016	2015	2014	2013
	GH₵'000	GH₵'000	GH₵'000	GH₵'000	GH₵'000
Total assets	3,545,143	3,035,493	2,134,147	2,156,741	1,621,761
Loans and advances to customers (net)	1,139,356	1,005,302	1,088,071	1,124,139	914,350
Deposits from customers	2,541,010	2,147,450	1,513,509	1,462,139	1,061,102
Shareholder's equity	479,339	454,778	332,893	343,815	281,995
Profit/(loss) before tax	47,339	(105,714)	(100,197)	34,559	83,928
Profit/(loss) after tax	26,510	(70,026)	(78,975)	47,864	80,629
Dividend per share (Ghana pesewas)	-	-	-	-	-
Earnings per share (Ghana pesewas):					
Basic	11	(166)	(316)	191	323
Diluted	11	(166)	(316)	191	323
Return on equity (%)	5.53	(17.78)	(23.34)	15.32	33.72
Return on assets (%)	0.75	(2.71)	(3.68)	2.53	5.26
Number of staff	1,179	1,197	1,235	1,196	1,244
Number of branches	78	78	78	78	77

Source: ADB Bank Report of Directors (2017)

Table1 shows a five year summarized financial performance of ADB spanning from 2013 to 2017 fiscal year.

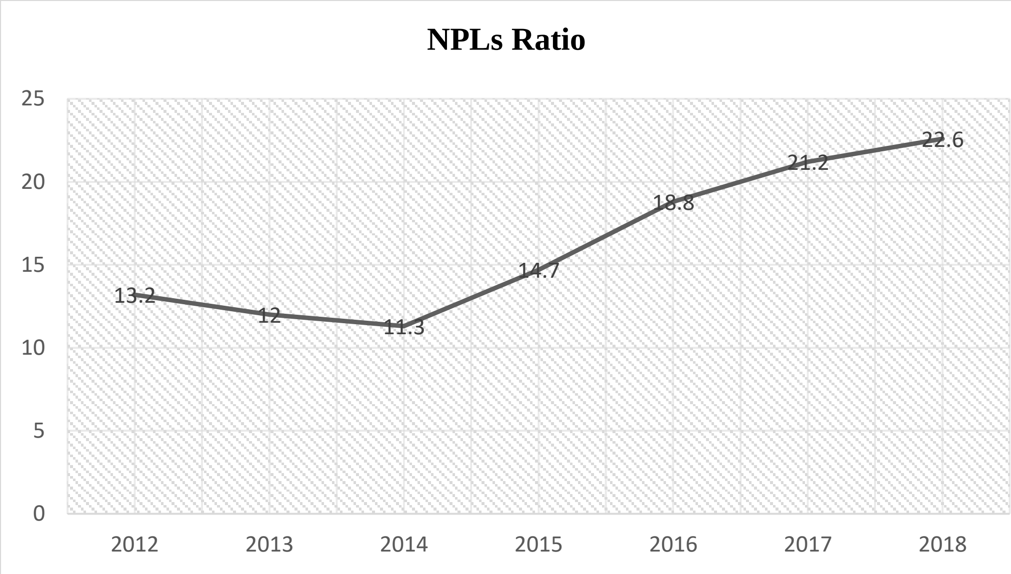

Figure 1:Trends of Non-performing loans Ratio in the Ghanaian banking Sector

Source: BOG Banking Sector Report (2018)

The upward trend depicted in Figure 1 shows the deteriorating rate of quality asset (NPLs) in Ghanaian banking industry. From Figure1, 2014 fiscal year recorded least ratio (11.3) while 2018 fiscal year recorded the highest or worse performance (22.6) for the period under review. This, according to the BOG has affected the profitability of the banking industry negatively.

Though the study seeks to unravel the effects of non-performing loans on commercial banks profitability in the Ghanaian banking sector, however, Agricultural Development Bank Limited has been adopted as the study area. Prior to 1970, ADB bank was mainly into agricultural financing which was later given full commercial banking status through an act of Parliament. This restructuring into a fully fledge universal bank and many other things increased the risk of NPLs in the bank. For instance, ADB 2017 financial report revealed that, provision for impaired loans otherwise known as NPLs increased from GHS 351,523,000.00 in 2016 to GHS 301,700,000.00.

Statement of Problem

Sustaining a vibrant banking sector depends largely on prudent credit risk management policies of commercial banks. The risk of non-performing loans impacts negatively on economic growth since the rate at which commercial banks give credit facilities to individuals, government and SMEs is positively correlated with economic growth (Kolapo, Ayeni & Oke, 2012). Furthermore, Balasubraniam (2013) outlined potential effects of NPLs on commercial banks activities. He posits that a lot of management working time and effort is spent dealing with NPLs at the detriment of other critical sectors.

Again, he argued that NPLs deprive the banks of interest income leading to lose of assets and also huge expenditure due to established specialized departments and hiring of financial experts to deal with NPLs. In line with this, data on year-on-year profitability percentage of commercial banks from the Bank of Ghana banking sector report showed a decreasing trend (Figure 2). This was largely attributed to NPLs in the sector (BOG Banking Sector Report, 2017).

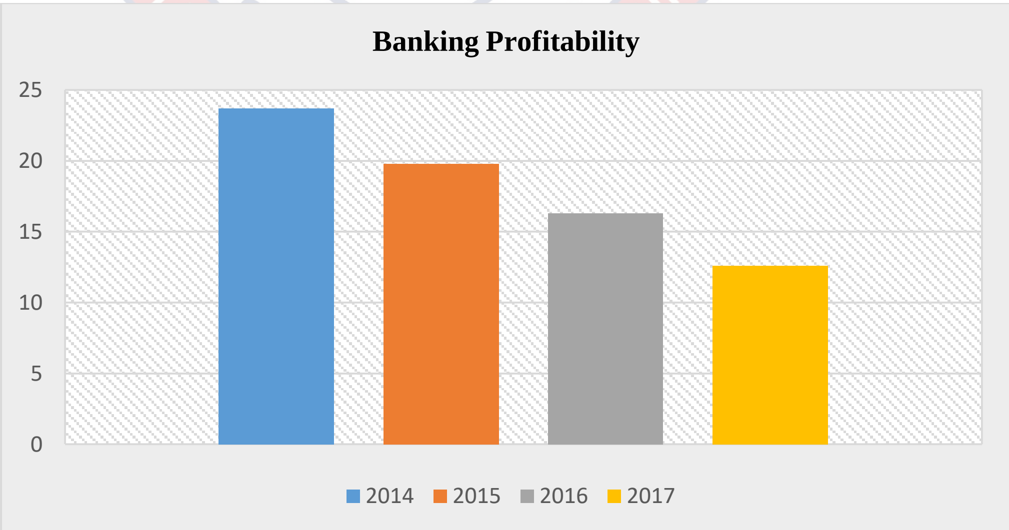

Figure 2: Ghanaian Banking Sector Profitability Trends

Source: BOG Banking Sector Report (2018)

The trend of non-performing loans in the ADB Bank leaves much to be desired as depicted in Figure 3.

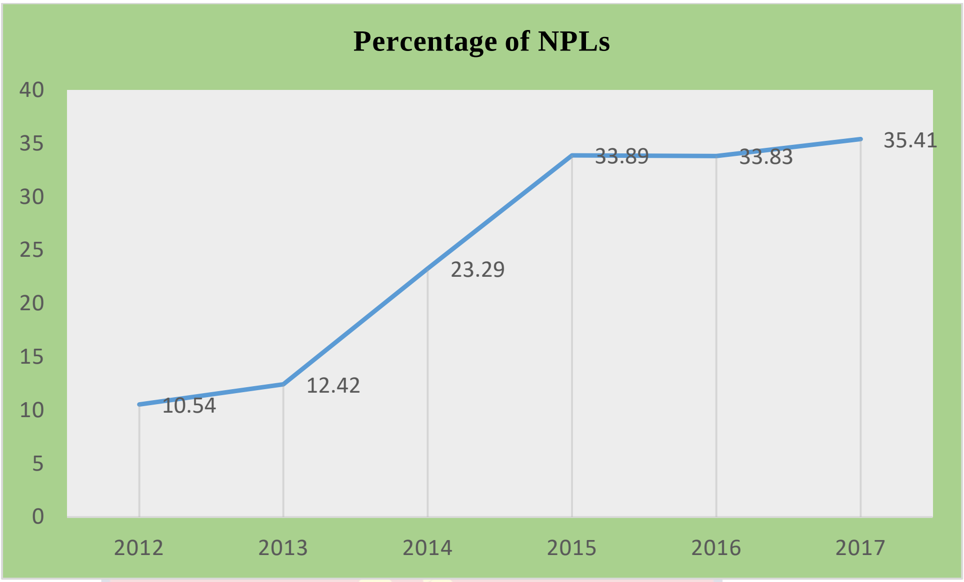

Figure 3:Trends of Non-Performing Loans in ADB Bank

Source: ADB Annual Financial Report (2017)

Though a cursory look at the graph shows an upward trend in non-performing loans, it does not give its marginal impact on profitability of ADB Bank. In view of this, there is the need for an empirical study to unearth the factors causing NPLs in ADB Bank and also evaluate the marginal impact of NPLs on the profitability of ADB Bank. This study, therefore, seeks to investigate the impact of non-performing loans on the profitability of commercial banks focusing on ADB Bank.

Purpose of the Study

The purpose of the study is to evaluate the impact of non-performing loans (NPLs) on the profitability of commercial banks in Ghana focusing on ADB Bank.

Research Objectives

The specific objectives are to:

1. Determine the factors causing non-performing loans in commercial banks using ADB Bank as a case.
2. Evaluate the effect of NPLs on the profitability of commercial banks using ADB Bank as a case.

Research Questions

The main research questions provoke by the topic under study are;

1. What are the factors influencing non-performing loans in commercial banks?
2. What is the effect of NPLs on the profitability of commercial banks?

Significance of the Study

This project work has become imperative due to the high and continuous rising trend in non-performing loans in Agricultural Development Bank. Findings of this study will serve as a blue print for management and credit officers of AD Bank to reduce the rising trend of NPLs and enhance their operations. The first objective of the project work which aimed at identifying factors that militate against the repayment of loans will equip credit officers with salient variables to be included in modeling risk of clients.

Secondly, commercial banks are the engine of growth in every economy through the granting of credit facilities to the SMEs sector, government and individuals as well as the creation of direct employment for citizens. Findings of the study will be a good source of information for the regulator to design and implement policies that will create an enabling environment for the banking industry in Ghana to thrive. Though, enough evidence abounds on the causes and effect of non-performing loans on the profitability of commercial banks in Ghana and beyond. This study will add to the stock of knowledge in the banking environment and the academic field concerning the sensitivity of profitability to NPLs. It will also serve as a literature for subsequent studies in the same area and other related fields.

Delimitation of the Study

The study focused on establishing the effect of non-performing loans on commercial banks profitability in Ghanaian banking sector, using financial information from ADB to achieve the study objectives. The study employed selected macroeconomic variables spanning from 2010-2017. The variables include; Gross Domestic Product (GDP), Consumer price index as a proxy for inflation (Inf), non-performing loans ratio, Return on equity (RE) as a proxy for profitability and average lending rate (ALR). However, the study did not model the effects of individual behavior on non-performing loans.

Limitations of the Study

The main limitation of the study is that the study looked at the information within the period of 2011-2018 and as such results hold true for that period and may not be totally accurate for other times as circumstances may change. Moreover, the study was constrained by finance and time. Given the relatively short time, it was possible to undertake a longitudinal study to measure stability or otherwise in research findings. Over time, the findings may not be applicable.

Definition of Terms

Non-Performing Loans (NPLs): This are loans on which the repayment of the principal and interest are past due by 90 days or beyond or interest payments and principal repayment scheduled delayed less than 90 days, but every indication give doubt about the repayment in full.

Performing or Current Loans: These are credit facilities where the borrower honor's the contractual obligation by repaying both the principal and the interest component without default.

Loan: A loan or credit facility is a contractual agreement between a borrower (SMEs, government or an individual) and a lender in this case a financial institution where the lender agrees to advance a specific amount to the borrower with a planned schedule of repayment. The repayment can be installments or in bulk amount within a specified time frame. A loan can be categorized as performing or non-performing.

Organization of the study

This study has been structured into five chapters. First chapter is made up of the Background of the Study, Statement of the problem, Significance of the study, Delimitations, Limitations and the organization of the study. Chapter two presents literature review, explanation of concepts and definition of terms, Chapter three highlights the methodological framework of the study and Chapter four present's findings and discussions of the results. The final chapter gives summary of the study, conclusion and policy recommendation.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter explains the theoretical framework and relevant empirical literature on the topic under review. The first section of the chapter highlights on the theories used to underpin the study, second section contains definition of terms and concepts and the last section also explores relevant empirical literature review on impact of NPLs on the profitability of commercial banks. According to Jesson, Matheson and Lacey (2011), literature review in research equips the investigator to have an acumen into other similar research on a particular topic under review. Coming from this backdrop, this section reviews relevant literature on the topic under review.

Theoretical Review

There are a lot of theories that can explain the theoretical foundation of the objectives of the study. However, the relevant theories are discussed in relation to the objectives of the study. The theories include: Deflation theory, Agency theory and information asymmetry theory. Discussion of these theories are done below.

Deflation theory

The causes and effects of non-performing loans in banks can be appropriately situated in the deflation theory propounded by Fisher (1933). Deflation theory is a finance and economic bias theory which explains causes and effects of NPLs and therefore, serves as a good theoretical underpinning to the topic under review. According to Fisher (1933), when the debt bubble bursts, it leads to a sequence of events with high devastation effect on the financial institutions and the economy at large. In other words, when individuals, SMEs and government accumulate debts more than their financial strength, it leads to sequence of events with a resulting negative impact (Beatrice, 2013). Firstly, it leads to debt liquidation resulting into distress selling and shrinking in deposits because bank loans are written off as bad assets or paid off. Secondly, the shrinkage or contraction in deposits leads to a fall in price levels which further result in a substantial reduction in the net worth of banks and businesses. Thirdly, debt bubble burst leads to bankruptcies which subsequently leads to a reduction in output and profitability. Finally, the sequence or distortions leads to high interest rates and accumulation of NPLs.

In summary, the theory explains how over-indebtedness, poor risk profiling and other internal and external factors influence loan defaults or non-performing loans and its resultant impact on the institutions and the economy (Beatrice, 2013).

Agency theory

Non-performing loans and its impact on the profitability of banks is credit risk and management problem that can best be explained via the agency theory. The fundamental principle of agency theory has to do with the relationship between agents (management) and their principals (shareholders) and the challenges that surface as they work towards a common goal. This theory stipulates that, management motivation, control and ownership of a firm should be separated. Smith and Stulz (1985) posits that agency issues in corporate risk management have potential influence on managerial assertiveness towards the kind of hedging and risk they adopt. The theory further illuminates on the possible disparity of interest between principals (shareholders), debtors and top management resulting from asymmetries in sharing earnings. This can force a firm to engage in high risk activities or possibly not embarking on positive net value projects (Mayers & Smith, 1987).

Agency theory, however, advocates for hedging in order to mitigate the problem of disparity between managers' earnings and interest of shareholders. The impact of agency issues on corporate risk management had been tested both theoretically and empirically. A study conducted by Faff and Nguyen (2002) to investigate the efficacy of agency theory on corporate risk management revealed that, managerial incentive factors impacts negatively on corporate risk management.

The dilemma of principals and their agents in corporate risk management dates back to eighteenth century by Adam Smith. In 1970s, Mitnick (2019) further developed on the theory using the core principles outlined by Adam Smith to be the key issues in agency and principal relationship. According to Mitnick (2019), three main problems exist with regards to risk management in a corporate organization. This include;

1. Agent's problem: That is agents are confronted with decisions to either perform in the interest of the principal, their own interest or some negotiation between both when divergence comes up.
2. Principal's problem: This has to do with shareholders motivating agents to achieve the set goals

3. Policing instruments and motivations: This talks about incentives and other mechanisms intended to constrain the discretion of the agent, such as directed tasks or surveillance.

These three principles clearly provide the framework and purpose for effective and efficient corporate risk management especially with the banking sector. It brings out the relevant and practical reasons why a financial institution should design and implement proactive internal controls (hedging) and its impact on risk management.

Information asymmetry theory

Information Asymmetry theory plays a critical role in unearthing factors causing non-performing loans in the financial sector. The theory explains that, due to incomplete information between two individuals in a business transaction, it is difficult to identify good clients from bad ones. Fairchild (2011) opines that moral hazard problem in the banking industry which often result non-performing loans is largely attributed to information asymmetry between borrows and loan officers of financial institutions. The theory stipulates that economic agents with more information on a particular transaction in a market turn to have optimum benefit in the negotiation than those with little information (Okoli, 2013). This leads to adverse selection of clients for credit facilities. Adverse selection is the tendency of selecting high risk profile clients for loans due to information asymmetry.

Conceptual Review

The study, therefore, reviews the conceptual framework that underpin the causes and effects of non-performing loans on the profitability of commercial bank in Ghana.

Factors Influencing Non-Performing Loans

In line with deflation and agency theory explained earlier, there exist both internal and external factors influencing non-performing loans. Among the factors include;

1. Lending Rate: Lending rates has a huge influential factor on loan default or non-performing loans in every economy. Lending interest rate is the price of capital to an investor or borrower. Considering the inherent risk associated with lending, banks seek to optimize returns by charging high commissions, fees and interest rate thereby leaving adverse effect on the borrower (Boudriga, Taktak & Jellouli, 2009). Furthermore, Demirguc-kunt and Detragiache (1998) theoretically opines that banks stand the risk of insolvency owing to falling assets value which is attributed to borrowers' inability to repay loans due to high interest rate. This clearly demonstrate that there exists a strong relationship between non-performing loans, banks profitability and interest rate charges. A study by Hancock (1985) supports this empirically. A high interest rate implies high interest income which increases the profit of banks. A positive relationship is anticipated between banks profit and lending interest rate.
2. Gross Domestic Product or Economic growth: Economic growth proxy by GDP is another salient influencing factor of non-performing loans.

Theoretically, it is argued that economic growth opens a country to a lot of investment opportunities with high incomes and hence improving the repayment capability of the borrower. Thus, an increase in GDP of a country decreases the level of non-performing loans and the opposite holds for high level of non-performing loans (Sinha, Dev & Salas, 2002). The reason here being that increase in GDP will lead to an increase in exports which strengthens foreign reserves which has a ripple effect on exchange rate. However, there is higher credit risk if economic growth comes with speedy credit growth, huge increases in the prices of assets, high investment levels, excess capital accumulation, and high export (Fofack, 2005). A decline in non-performing loans increases the profitability of commercial banks. In theory, a positive relationship is hypothesized between GDP and banks profitability.

3. Inflation: This is measured by consumer price index and thus, reflects the general price level of goods and services. Theory opines a positive relationship between non-performing loans and inflation. The intuition being that, inflation erodes equity of banks and consequently leads to higher credit risk in the banking industry (Fofack, 2005). Taking Fisher's equation into consideration, increase in inflation will lead to an increase nominal interest rate (lending rate) and hence leaving profound impact on non-performing loans. The pass through effect of inflation on exchange rate cannot go unmentioned in this regard. High rate of inflation leads to exchange rate deterioration with its adverse effect on the economy and NPLs. High inflation rate increases the cost

of doing business, increase the rate of non-performing loans with it adverse effect on profitability of banks. A negative relation is therefore anticipated between inflation and banks profitability.

4. Loan Disbursement Lag: Impact of loan disbursement lag on loan default or non-performing loans cannot be underestimated. Delays in the time of disbursing loans to clients increases the transaction and operational cost of borrowing and thus, post a huge threat to loan repayment schedules. This unanticipated cost or extraneous variable distort the business plan of the client which subsequently leads to default. This has strong empirical evidence from Olomola (1999).

5. Loan Size: Exposure to high credit risk is often associated with large loan amounts. The intuition here is that large credit amount has high variable cost per cedi and if not properly managed by the borrower could lead to a non-performing loan. Schreiner (2001) posit that larger amount of loans indicates higher profitability for banks but lesser outreach depth for the borrower. Revenue and risk of default has a direct linkage with depth of outreach which is proxy by average loan balance (Schreiner, 2001). Non-performing loans can be attributed to the size of loan disbursed since there exist a direct relationship with loan size and risk. The reason being that, most at times due to poor assessment of the clients, they end up picking loans which are more than their business need and repayment capability resulting in non-performing loan. There exist a lot of empirical evidence to support this claims (Mian, 2006).

6. Cost Efficiency: Poor management practices of financial institutions such as ineffective monitoring, weak internal controls and poor loan underwriting often leads to high inefficiency in cost. Low cost efficiency increases the cost of credit and thereby, lead to high rate of Non-performing loans. Economic theory opines that cost efficiency of a financial institution leads to high loan quality which in turn has impact on non-performing loans. This implies that high cost efficiency leads to lower rate of non-performing loans. This is empirically supported by studies conducted by Vogiazas and Nikolaidou (2011) and Hawtrey and Liang (2008). These studies found positive relationship between low cost efficiency and non-performing loans.

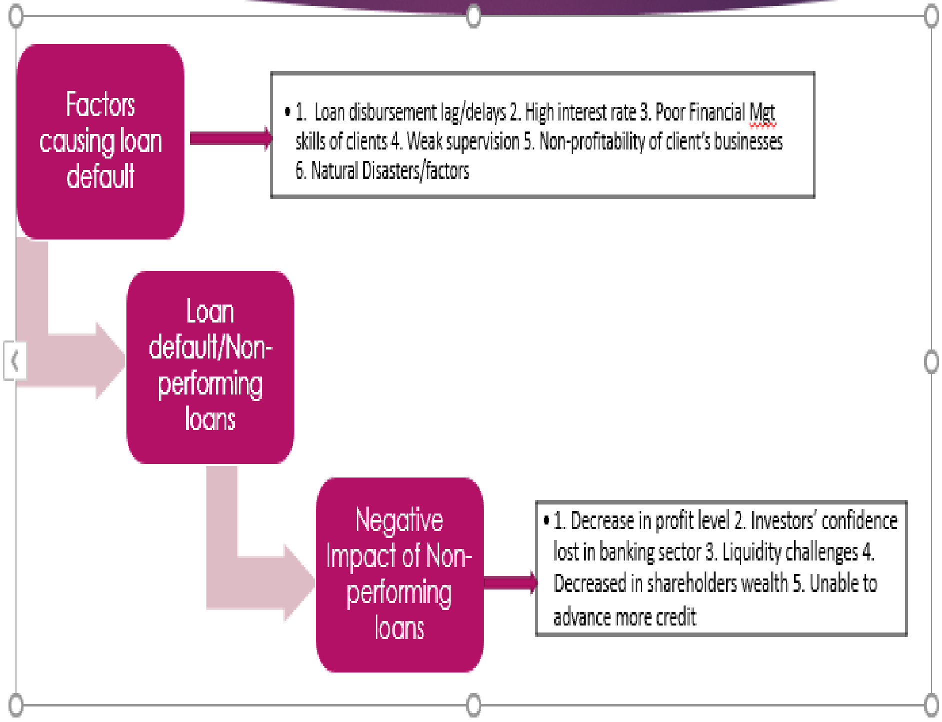

Figure 4:Conceptual Framework on causes and impact of non-performing loans
Source: Vogiazas and Nikolaidou (2011)

Empirical Review

Nyarko-Baasi (2018) conducted a study on four commercial banks listed on Ghana Stock Exchange to establish the effect of non-performing loans on the profitability of banks. GCB, Ecobank Ghana, Standard Chartered Bank and Cal Bank were the four major banks used in the study. The study adopted a panel regression estimation technique or methodology through Random fixed effects technique to investigate the effect of credit risk on the profitability of commercial banks. The main variables employed by the study were Return on equity (ROE) as a proxy for profitability, Non-performing loans ratio (NPLR) and capital adequacy ratio (CAR) with data point spanning 2006-2015. Using Eviews software, Heterogeneity test was further conducted on the variables using Hausman test. Findings were that non-performing loans ratio significantly impacts negatively on the profitability of banks whiles capital adequacy ratio and size of bank showed statistically significant positive relationship with the profitability of commercial banks. A unit increase in Bank size leads to 6% increase in the profitability of commercial banks while a unit increase in NPLR results in 25% decrease in ROE. Analysis of the data also revealed that a unit increase in CAR leads to 11% increase in ROE or profitability of commercial banks. The study recommended that commercial banks should comply strictly with banking sector regulations and Bank of Ghana should make frantic efforts to sanitize the sector.

Nguyen (2017) conducted a study in Vietnam to determine the relationship between non-performing loans, lending behavior and profitability of commercial banks. This was necessitated by the high and continuous rising trend of non-performing loans. The study employed Generalized Method of Moments technique through dynamic panels. Secondary data of Vietnam commercial banks spanning 2005-2015 were used. Variables employed in the analysis were GDP as a proxy for economic growth, inflation (INF), Non-performing loans (NPLs), Return on assets (ROA) as a proxy for profitability and Gross total loans (LGR) as a proxy for lending behavior. Correlation and heteroscedasticity test were duly performed on the variables to avoid spurious results. Findings of the study revealed that non-performing loans has statistically significant negative impact on profitability of commercial banks and their lending behavior in Vietnam. The study further found that GDP impacts significantly positive on profitability of banks whiles inflation impacts negatively on commercial banks profit. This implies that economic growth is a good indicator for banks whiles high inflation rate is a bad indicator.

A study by Lydnon, Peter and Ebitare (2016) investigated into the relationship between bank performance and non-performing loans in Nigeria. Central Bank of Nigeria (CBN), annual reports on listed banks and Nigerian Deposit Insurance Corporation (NDIC) were the main source of data for the study. Multiple regression methodology was employed using Eviews data analysis software and Augmented Dickey Fuller unit root test was duly performed on the variables to determine their staionarity before analysis. Result of the Augmented Dickey Fuller test showed that all variables were integrated of order one or I(1). Secondary time series data spanning 1994-2014 was employed by the study. The key variables adopted in the study were return on capital employed (ROCE) as a proxy for performance, Sub-standard loans (SUL), Doubtful loans (DOL) and Bad loans (BAL) also as a proxy for non-performing loans.

Findings from the study showed that SUL, DOL and BAL significantly impacts negatively on the performance of commercial banks. Results from the regression analysis indicates that one percent increase in sub-standard loans results in 10.43% decrease in ROCE or performance of commercial banks. The study further discovered that one percent increase in DOL and BAL leads to a reduction in ROCE by 9.30% and 60.91% respectively. The study recommended that credit supervising authorities and reporting agencies should be equipped to reduce high level of non-performing loans.

Rozina and Jewel (2017) also investigated the impact of non-performing loans on the profitability of commercial banks in Dhaka. The study was motivated by rising trend of non-performing loans and collapsed of some banks in Dhaka. Secondary data from 30 listed commercial banks on Dhaka Stock Exchange were employed for the study. Interest Margin (IM), Loan Deposit Ratio (LDR), Bad Debt (BD) proxy as non-performing and Net Profit Margin (NPM) proxy as profitability were variables used with data points spanning 2008-2013.

Methodologies employed were correlation coefficient technique, multiple regression and ANOVA via Statistical Package for Social Sciences (SPSS) software. The null hypotheses that, there is significant impact of non-performing loans on banks financial performance was tested against alternative hypotheses that, there is no significant impact of non-performing loans on the performance of commercial banks. Findings from the estimated results showed a negative relationship between classified loans and banks profitability. A 1 percent increase in classified loans leads to a decrease in commercial banks profitability by 0.186%. On the other hand, a positive relationship was established between profitability, interest margin, Deposit ratio and Bad debt. That is a 1 percent increase in interest margin leads to an increase in profitability by 0.51% while a 1 percent increase in deposit ratio leads to 0.699% increase in profitability. Estimated results further revealed that a 1 percent increase in bad debt leads to 0.231% increase in the profitability of banks. The null hypotheses were therefore rejected at 0.05% significance level indicating that non-performing loans impacts negatively on the profitability of banks.

Ali (2015) investigated the effects of credit risk management on the financial performance of commercial banks in Jordan. Variables employed were capital adequacy ratio (CAR), ratio of NPLs to gross loans (NPL/GL), ratio of credit interest to credit facilities (CI/CF), leverage ratio, ratio of facilities loss to net facilities (FL/NF), return on assets (ROA) and return on equity (ROE). Profitability of banks was proxy by ROA and ROE. Panel regression technique through least squares, correlation estimation and descriptive analysis was adopted to achieve the objective of the study. Augmented Dickey Fuller (ADF) test was carried out to determine the stationarity of variables employed. Estimated results showed positive relation between non-performing loans to gross loans while inverse relationship was registered between ratios of facilities loss to net facilities. Capital adequacy ratio (CAR) and ratio of credit interest to credit facilities (CI/CF), however, did not show any significant impact. The study further recommended that proper credit management through salient policies should be adopted.

Asantey and Tengey (2014) investigated the effect of bad loans on financial performance and lending potentials of banks in Ghana. The study sought secondary data from annual financial statements of the selected banks spanning from 2008 to 2013. Ordinary Least Squares regression approach and Pearson's correlation test technique was employed to analyze the data. The study found a negative relationship between bad or non-performing loans and lending potentials of the bank. Bad loans account for 67.9% in the variation of lending potentials of commercial banks in Ghana. This implies that an increase in non-performing loans decreases the lending potential of commercial banks.

Asantey and Tengey (2014) further discovered a negative relationship between return on investment or profitability of banks and non-performing loans. The intuition here is that an increase in non-performing loans leads to a decline in the profitability of commercial banks. Analysis of the data showed that 84.1% of the variations in the profitability of banks is attributed to non-performing loans. A unit change in non-performing loans decreases net profit of commercial banks by 0.3%.

Awunyo-Vitor (2012) also investigated the determinants of loan repayment default among farmers in Brong Ahafo region of Ghana. Primary data was sourced from 374 farmers through a survey. Probit regression model was employed to determine the factors militating against loan repayment. Analysis of the data revealed that farm size and engagement in off farm income generating activities reduces the probability of loan repayment in full or increases the probability of loan repayment default. The study further found that loan amount impacts negatively on loan repayment. This implies that, all things being equal, the higher the amount of the loan, the higher the default rate.

Khemraj and Pasha (2005) conducted a study on determinants of non-performing loans in Guyanese banking industry. Analysis of the data showed an interesting relationship between GDP and NPLs. The results of the study revealed that economic growth proxy by gross domestic product and the volume of non-performing loans are inversely related. This implies that improvement in the economy which leads to economic growth has great potential of reducing the level of non-performing loans in a country. Ahmed and Ariff (2007) also found that, non-performing loans impacts negatively on profitability of banks whiles growth in GDP improves financial health of commercial banks.

Vogiazas and Nikolaidou (2011) investigated the factors influencing non-performing loans within the banking sector in Ramania. Analysis of the data revealed that unemployment, inflation, gross domestic product, expenditure on construction investment and Romania's external debt constitute the main factors influencing the level of non-performing loans. The findings of this study confirms the result obtained by Alhassan, Brobbey and Aamoah (2013) that an increase in GDP growth rate and a reduction in the level of inflation have a great potential of reducing credit risk and the level of non-performing loans in the banking industry.

Kolapo, Ayeni and Oke (2012) conducted a study into credit risk and the performance of commercial banks in Nigeria. The study employed cross section data from five banks over a period of eleven years. Traditional profit theory, measured by Return on Asset (ROA) was adopted to serve as epistemological perspective of the study. The data was then subjected to panel model analysis to obtain the objectives of the study. Findings of the study revealed that credit risk has the same or invariant effects on the performance of banks in Nigeria. Kolapo et al. (2012) further found that a 100% increase in NPLs reduces the profitability of commercial banks by 6.2% whiles a 100% increase in loan loss provision reduces commercial banks profitability by 0.65%. The study also revealed that, a 100% increase in loans and advances leads to an increase in the profitability of the commercial banks by 9.6%. The later findings are not surprising since loan income constitute about half of commercial banks profit (Wondim, 2015).

A study by Ljube (2017) sought to know the influence non-performing loans ratio on profitability indicators in the banking system of the Republic of Macedonia. The study employed time series financial secondary data for the period spanning 2007-2015. Correlation and regression analysis was conducted using STATA software to unearth the objectives of the study. Findings of the study revealed a highly significant negative relationship between non-performing loans, return on assets (ROA) and return on equity, indicating that high non-performing loans decreases the profitability of commercial banks.

Sazzad and Nishat (2019) also sought to know the impact of non-performing loans on the profitability of banks in Bangladesh. A quantitative estimation technique was employed using secondary data from annual financial reports of the banks for period spanning 2002-2017. Both Ordinary

Least Squares (OLS) method and Vector Auto Regression (VAR) model were applied to the data with all the necessary robustness tests. Findings of the study revealed that there is no long-run relationship between non-performing loans and profitability of commercial banks. However, the study found a short-run relationship between the variables suggesting that NPLs leads to a reduction in banks profitability. The study also found corruption, recapitalization, lengthy recovery procedure, political influence, lack of monitoring, borrower selection, and unskilled personnel to be the causes of non-performing in the banking sector.

Chapter Summary

In summary, the chapter explained the theoretical framework of the study, explained concepts on Causes and effects of non-performing loans in commercial banks. Also reviewed relevant literature on the topic under study including factors influencing non-performing loans.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter presents the methodological approach to the study. The first section highlights the design of the study followed by data sources, target population, sampling technique, and data collection approach. The chapter further explains data management and analysis, presentation format and ethical concerns. It also presents a brief description of background of the study area.

Research Approach

The study employed both quantitative and qualitative approaches to achieve research objectives. This involved the combination of econometric and descriptive analysis to evaluate the effect of non-performing loans on the profitability of ADB Bank. This approach gives the investigator the opportunity to observe the data gathered from interviews (Babbie & Mourton, 2006). Miller and Brewer (2003) argues that qualitative technique aids the investigator to explore potential challenges to achieve the desired objectives of the study. Bryman and Bell (2011) also describes quantitative research as the precise measurement whereas qualitative research puts emphasis on how an individual perceives and interprets the social reality. In view of this, an interview questionnaire with structured questions aimed at seeking expert opinion on the objectives of the study was used. The interview questions helped achieved the first objective of the study while econometric analysis was used to achieve the second objective. The questionnaire was pre-tested via a pilot survey to determine how long it will take to complete one interview and also correct any inconsistencies in the questionnaire.

Research Design

Nortey (2009) posits that, research design refers to the plan to fit in the different components of the research project in a cohesive and coherent pattern. In other words, it means to structure a research project in order to address a defined set of questions. The study adopted descriptive analysis technique to unearth the research objectives. This design has been selected because it has the advantage of producing good responses from a wide range of questions and because the situation under study seeks to determine cause-and-effect relationships of selected macroeconomic variables.

Study Area

ADB Bank is a limited company which doubles as a commercial and a development bank. Agricultural Credit and co-operative Bank currently known as ADB Bank came in existence in 1965 by Act 179 with the basic aim of facilitating agricultural development in the country. In 1970, Agricultural Credit and Co-operative Bank changed its name ADB which granted the bank authority to full engage in commercial banking. Currently the ADB has seventy-eight (78) branches all over the country. This consist of sixty-four (64) service outlets, four (4) Farm Loan outlets and ten (10) Agency outlets.

Ownership structure

The ownership of ADB was restructured in December, 2016 through the listing of its shares on Ghana Stock Exchange (GSE) and was successfully patronized. Currently, seven (7) different entities or individuals own AD Bank namely;

1. Bank of Ghana holding 9.5% of the assets
2. Government of Ghana holding 32.3% of assets
3. Belstar Capital Ltd hold 24% of the assets
4. EDC Investment Ltd holding 6% of the assets
5. SIC Financial Services holding 10%
6. Retail investors and ADB staff holding 7.2%
7. Starmount Development Company Ltd holding 11%.

The above seven entities constitute the current shareholding structure of ADB with Government of Ghana being the majority shareholder.

Product and services

Aside granting of credit facilities to facilitate agricultural development, AD Bank also offers varied services to its valued customers which include; Development Banking, International Banking, Corporate Banking, Treasury Management Services, Diaspora Banking Services, Personal Banking and Money Transfer Services. Currently, these are the products and services provided by Agricultural Development bank.

Data Sources

Considering the topic under review and the study objectives, both secondary and primary data were employed to achieve the stated objectives. Primary data was sourced from direct interviews with selected staff of ADB Bank and customers of the same bank. The staff include 2 customer service officers, 2 operation officers, 1 branch manager and 3 tellers. Altogether, the number persons interviewed were 8. A well-structured data collection instrument was used to elicit information.

Secondary data spanning from 2011-2018 was also sourced from varied sources. Monthly data on return on equity and non-performing loans data were sourced from ADB Bank while Gross Domestic Product (GDP) and inflation (Consumer Price Index CPI as proxy for inflation) were also sourced from Ghana Statistical Service (GSS). Findings and conclusion of the study were based on the analysis of primary and secondary data. The primary data was obtained through interviews to answer research question one and the secondary data was obtained from annual reports and other internet sources to answer research objective two.

Empirical Model for OLS Estimation

This section explains the econometric model used to achieve the second objective of the study.

$$ROE_{it} = \beta_0 + \beta_1 NPLR_{it} + \beta_2 GDP_{it} + \beta_3 CPI_{it} + \varepsilon_{it} \quad (1)$$

Where;

β_0 is a constant

$\beta_1 = \beta_2 = \beta_3$ are coefficients of estimations and ε_{it} is the error term

ROE = Return on equity

NPLR = Non-performing loans ratio

Control variables

GDP = Gross Domestic Product

CPI = Consumer Price Index (proxy for inflation)

The study chose Return on Equity (ROE) over Return on Asset (ROA) because ROE is a good indicator of profitability in this particular scenario.

The reason being that, ROA though measures profitability but take into account all assets own by the company and not the net worth. ROE on the other hand shows the net worth of the company and not what the company owns.

Justification of the OLS Model

One critical motivation for the use of OLS estimations in this study that, OLS is simple to use and easy to interpret the results. Secondly, OLS regression is the best linear unbiased estimator of the true coefficients. The last but not the least factor is that, OLS suitable for simple and small samples. Considering the sample size and also to ensure efficient predictability of the results, OLS adoption is thus, justified.

Data Analysis

Data from the field was retrieved, edited and coded for easy analysis. It was then context into Statistical Package for Social Sciences (SPSS) version 23 for analysis. The study adopted quantitative and qualitative descriptive analysis on the primary data collected to generate meaning from the raw data obtained from the field. Secondary data was entered into excel for further processing and analysis. Tables, were adopted for presentation of results of the analysis to aid understanding. The study also presented direct quotation of responses from respondents. Findings from the study were further compared with the reviewed literature to obtain the desired objective of the study.

Ethical Consideration

Ethical issues remain critical to every social research such as the topic under review. Saunders, Barros-Bailey, Rudman, Dew and Garcia (2007) explains ethics to mean the aptness of the researcher's behavior in relation to the rights of respondents and all those affected by the research. Yin, Zhang, Juniper and Wu (2009) on the other hand, defined ethics as, the application of moral principles to safeguard and respect the rights of respondents. The study ensured voluntary (optional) participation of respondents in the research. Respondents were also granted the right to withdraw at any stage of the interviewing process if the situation demands. Interpreters in a situation of language barrier was the reserve right of respondents. However, rare case of this scenario did occurred during the interview. Furthermore, the first section of the questionnaire also assured respondents of the confidentiality and anonymity of their answers. Benefits, risk, purpose and objectives of the study were duly explained to respondents prior to the interview. The values and norms of AD Bank were also respected. Lastly, works which did not originate from the writer were duly cited in the main text and also sent to the referenced page.

Chapter Summary

The chapter has looked at the research design and approach of the study, discussed about the population and sample. The OLS model was specified for the study and the variables were defined. Also, the chapter looked at the sources and types of data needed for the study and finally ethical issues were considered of the study.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

The chapter presents findings from the primary data gathered from the field as well as secondary data sources. A total of 8 staffs were interviewed. tables have been used to present results of analysis with discussion of the key findings.

The result from the analysis of the data is divided into two sections. The first section shows the results from staff concerning the factors causing non-performing loans, second section presents econometric regression analysis to determine the effect of non-performing loans and other macroeconomic variables on the profitability of banks.

Factors Causing Non-Performing Loans in ADB Bank

Objective one sought to identify the internal and external factors influencing non-performing loans in ADB Bank Ltd. A qualitative analysis was conducted using the interviews conducted. On the factors causing non-performing loans in ADB Bank. 1 branch manager, 3 tellers, 2 operations managers and 2 customer officers and some clients present at the baking hall were interviewed at the bank. These respondents were asked about the factors causing non-performing loans. Upon the interview the following were causes of customers' inability to pay loan: late disbursement of loan, business failure, unfavourable payment terms, high interest rates, inadequate loan sizes, unforeseen contingencies, for instance death of customer that took loan, lack of training for the clients and after disbursement, poor appraisal, lack of proper monitoring, improper client selection, diversion of funds on the part of clients, unwillingness of clients to pay, illiteracy and inadequate skills of clients, poor business practices, macro-economic factors, poor management styles among others. These causes were then grouped into internal and external causes of loan default; **internal causes** include: late disbursement of loan, unfavourable payment terms, inadequate loan sizes, high interest rates of the bank, lack of training for clients and after disbursement, poor appraisal, lack of proper monitoring and improper client selection. **External factors** include: business failure, unforeseen contingencies, diversion of funds on the parts of clients, unwillingness of clients to pay, illiteracy and inadequate skills of clients, poor business practices, macro-economic factors and poor management styles. These confirm the findings of the study by a number of researchers. Vandel (2009) and Opugie (2011) in separate studies found that high interest rate charged by microfinance and banking institutions is a major cause of default among the clients. Balogun and Alimi (2010) also identified that the major causes of loan default as loan shortages, delay in time of loan delivery, small farm size, high interest rate, age of farmers, poor supervision, non-profitability of farm enterprises and undue government intervention with the operations of government sponsored credit programs. Moreover, Ahmad (2009) found that lack of willingness to pay loans coupled with diversion of funds by borrowers, willful negligence and improper appraisal by credit officers are some of the causes of loan default.

Effect of NPLS on the Profitability of ADB Bank Ltd.

The aim of objective two was to evaluate the impact of NPLs on the profitability of ADB Bank Ltd. The econometric result is presented below.

Presentation of Result from Econometric Analysis

As earlier on mentioned in chapter three, the regression analysis used Gross Domestic Product (GDP), Consumer Price Index (CPI), Return on Equity (ROE) and Non-Performing Loans to achieve the study objective. Table 3.2 shows the descriptive statistics of the variables.

Table 2: Descriptive Statistics of Variables

Variable	Obs.	Mean	Std. Dev.	Min	Max
CPI	72	289.8779	180.7477	112.01	1401.1
MGDP	72	7331.513	2672.376	3836.842	11661.32
MORE	72	1.122222	1.563687	-1.945	2.81
MNPLs	72	1336.193	982.8144	9.761417	2465.5

Source: Field Survey (2019)

Table 9 shows the descriptive statistics of the variables which indicates number of observations, mean, standard deviation, minimum and maximum values. Average monthly CPI for the period under review is 289.8779 with 1, 401.1 as maximum. Non-performing loans in ADB also recorded a monthly average of 1,336.193 million cedis with 2,465.5 million cedis as maximum. Average monthly ROE recorded 1.12% and 2.81% as maximum.

Multicollinearity Test

The study employed both pair-wise correlation and Variance Inflation Factor (VIF) tests to investigate whether there exist multicollinearity among the explanatory variables in the model. According to Stock and Watson (2011), multicollinearity exist when one regressor of the model is highly correlated with or linear to other regressors. Multicollinearity is assumed to be an issue in the model when the pair-wise correlation coefficient is higher or equal to 0.8 (Gujarati, 2006). In line with this, a correlation matrix was used to verify the multicollinearity problem in the model. The result of the test revealed that, the model is devoid of multicollinearity problem (see: Table10 & Table11).

Table 3: Result from Variance Inflation Test

Variable	VIF	1/VIF
NPLs	2.24	0.446733
MGDP	2.23	0.447880
CPI	1.47	0.682279
Mean VIF	1.98	

Source: Field Survey (2019)

To ensure the robustness of the test, the study conducted Variance Inflation Factor (VIF) to confirm the pair-wise correlation test. The result of VIF test indicates there is no multicollinearity among the variables. According to Michael, Hussaini and Agboola (2015), multicollinearity is said to exist if the VIF is above 5. The highest VIF factor in the model is 2.21 which is far below the threshold of 5.

Table 4:Result from Pair-Wise Correlation Test

	ROE	CPI	MGDP	NPLs
ROE	1			
CPI	0.2877	1		
MGDP	-0.5943	-0.5224	1	
NPLs	0.6156	0.5242	-0.7238	1

Source: Field Survey (2019)

To ensure that there is linear relationship between the dependent variable (ROE) and independent variables (CPI, MGDP, NPLs), the correlation was run, from Table 11, it could be observed that there is a positive strong correlation between ROE and NPLs but a positive weak correlation between CPI. There is also a relationship between ROE and MGDP but in the negative direction. It can therefore be said that, there is a linear association between the dependent variable and independent variables.

Stability Test

An econometric analysis which is modeled with variables that have a stable relationship over a long period of time yields accurate policy prescription which promote economic growth and development. To determine the stability of the variables used in evaluating the effects of non-performing loans on banks profitability in Ghana over time, the study employed Cumulative Sum (CUSUM) of recursive residuals test. The result of Cumulative Sum (CUSUM) recursive residuals test is shown graphically in figure 5 below. The middle blue line does not go beyond the bounds of 5% significance level (depicted by the two straight lines) indicating the model is stable and also correctly specified. The conclusion therefore is that, there exist a stable and significant relationship among the variables in the model.

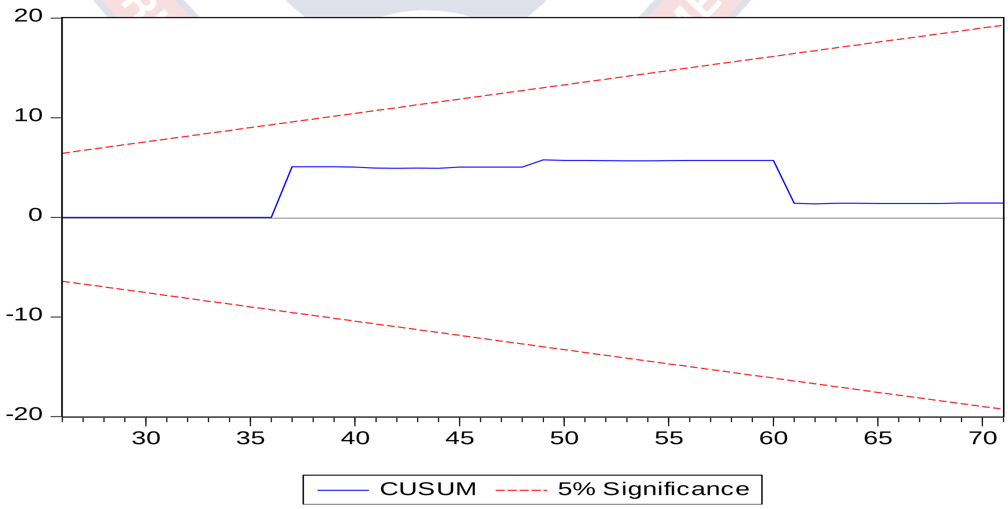

Figure 5: Cumulative Sum of Recursive Residuals Plot (CUSUM)

Source: E-Views (2019)

Table 5: Effect of Non-Performing Loans on the Profitability of Banks

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.945240	1.612293	-0.586271	0.5597
CPI	-0.001732***	0.000453	-3.822121	0.0003
MGDP	0.000713***	0.000114	6.281541	0.0000
ALR	0.128764**	0.054051	2.382285	0.0201
NPLR	-4.225110***	0.404626	-10.44201	0.0000
R-squared	0.874065	Mean dependent var		1.165423
Adjusted R-squared	0.866433	S.D. dependent var		1.530933
S.E. of regression	0.559508	Akaike info criterion		1.744304
Sum squared resid	20.66128	Schwarz criterion		1.903647
Log likelihood	-56.92278	Hannan-Quinn criter.		1.807670
F-statistic	114.5199	Durbin-Watson stat		0.593369
Prob(F-statistic)	0.000000			

Source: Eviews (2019)

10% significance level=*, 5% significance level=**, 1% significance level=*** Dependent Variable: ROE Method: Least Squares

From Table 12 a joint statistical test on the variables was conducted and the result revealed that, the variables are significant determining the profitability of commercial banks (ADB) at 5% significance level since their p – values are less than 0.05 in the model. Thus we conclude that, all explanatory variables jointly are not equal to zero and hence have significant impact on ADB profitability. The value of R2 being equal to 0.874 implies that, the explanatory variables fits the regression model by 87.4%.

The study found that, a one percentage change in inflation in Ghana will lead to a decline in ADB's profitability by 0.00173%. The intuition here is that; inflation increases the operational cost of banks with its adverse effect on banks profit. In addition, inflation has a pass through effect on non-performing loans to banks profit using cost efficiency theory. Inflation increases the lending rate which invariably have the potential of increasing non-performing loans rate and finally a decline in banks profit. The result here concurs with findings from Alhassan et al. (2013) and Feldestein (1983). The hypothesized negative sign for inflation (proxy by CPI) meant to evaluate the effect of non-performing loans on ADB profitability has been attained and is significant at 1% significance level.

Secondly, the result fond a unit increase in Ghana GDP will lead to an increase banks profit in this case ADB by 0.0713%. The reason being that, an increase in GDP leads to increase in income levels of individuals and corporate institution and thus, increases their ability to pay. This invariably reduces loan default and thus, boost the profitability of banks (ADB). This result confirms the findings by Doriana (2015) and Alhassan et al. (2013). The anticipated positive sign for economic growth (proxy by GDP) on banks (ADB) profitability has been attained and also significant at 1% significance level.

The project also anticipated a positive relationship between the lending rate and profitability of ADB bank. This has been confirmed and significant at 5% significance level. Analysis of the data revealed that, a one percent increase in the lending rate leads to an increase in banks profit by 0.128% averagely. The intuition behind this result is that, an increase in the lending rate leads to an increase in banks interest income which boost the overall profit of the banks. This result confirms findings by Alhassan et al. (2013).

Furthermore, the hypothesized negative sign for non-performing loans on the profitability of commercial banks proxy by ADB has been attained and highly significant at 1% significance level. The result of the project revealed that, a one percent increase in non-performing loans leads to a decline in ADB (commercial banks) profit by 4.225%. This result is not surprising because interest income forms a larger proportion of commercial banks profit. The result thus, confirms findings by Edge (2010), Alhassan et al. (2013) and Rabeya (2015).

Chapter Summary

In this chapter, the researcher looked at the results of the study and discussed into details. The results were presented based on the research objectives. The study found that there is a negative impact of NPLs on profitability of ADB Bank Ltd, while the control variables have positive impact except for CPI (proxy inflation). Also, internal factors causing loan default were: delay in loan disbursement, short term loan repayment schedules, unintended purpose for loans and poor credit risk profiling; external factors were identified to be poor macroeconomic variables.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter gives the summary of findings from the study, draws conclusions based on findings and lastly recommend possible policies for policy makers and investors.

Summary

The study adopted both quantitative to evaluate the effects of non-performing loans on commercial banks profitability and qualitative methods to evaluate causes of non-performing loans using ADB as a study area. Descriptive statistics analysis as well as econometric estimation (OLS) techniques were employed. The study used both primary and secondary data to unearth the causes and effect of non-performing loans on the profitability of AD Bank. Monthly time series secondary data on economic growth (proxy by GDP), average lending rate, return on equity, Inflation (proxy by CPI) and non-performing loans for the period 2011-2018. Primary data was elicited through direct interviews with clients and staffs of ADB in Nkwanta South District.

The first objective of the study was to find out the causes of non-performing loans in AD Bank from the clients and staffs perspective. Only clients and staffs of ADB were interviewed and this include those benefited from ADB loan facility, those who applied but was denied and finally those who did not seek for the loan facility. The major factors found by study to be the main factors causing loan default or non-performing loans were; Macro-economic factors, high interest rates, unforeseen contingencies, business failure, lack of training for clients, unfavourable payment terms, poor appraisal, improper client selection, diversion of funds on the part of clients, illiteracy and inadequate skills, poor management styles and unwillingness of clients to pay loan.

The second objective of the study was to evaluate the effect of non-performing loans on the profitability of AD Bank. OLS estimation technique was applied to achieve this stated objective. Findings of the study revealed that, whiles factors such as lending rate and economic growth (GDP) leads to increase in ADB profitability, others such as inflation rate and non-performing loans leads to a reduction in the profitability of AD Bank.

The study discovered a negative relationship between Return on Equity, inflation and non-performing loans ratio. This implies that, an increase in inflation and non-performing loans worsens assets quality of ADB and by extension commercial banks. The reason being that, increase in anticipated rate of future inflation rate and non-performing loans leads to a decline in the proportion of current earnings to share prices proportionally. Furthermore, the positive relationship between lending rate and AD bank profit implies that, an increase in lending rate leads to an increase in loan interest income. Since interest on loans forms a major proportion of commercial banks profit, overall profit of the bank will increase (Gyamfi, 2012).

Again, the positive relationship found between bank's profit and GDP also implies that, high productivity levels opens the economy to more investment and income opportunities for economic agents. This therefore, increases the ability to pay by clients. Added this, increase in GDP (economic growth) leads to appreciation of the domestic currency which intend decreases the rate of NPLs through the reduction uncertainties and operational cost of businesses. This impacts positively on banks profitability and hence the positive relationship between ADB profits (ROE) and GDP.

Additionally, stability test for the econometric model or the variables was also determined using Cumulative Sum (CUSUM) recursive residuals test. Result of the test showed that, the model is stable and that policy prescriptions using the model will lead to a decline in NPLs in the country.

Conclusion

Non-performing loans have a negative effect on the banks profitability. Dividends are paid from net profit to shareholders and an adverse effect of non-performing loans on profitability causes a reduction in profit and thereby causing a reduction in dividend. Thus, knowing factors that causes loan repayment default is helpful to the bank in knowing the strategies to put in place in order to increase profitability. Interest rate (lending rate) and gross domestic product have been found to have positive impact on banks profitability in Ghana. This helps the Bank of Ghana and government to determine how money should flow in the economy, because, increase in interest rate will discourage the flow of money from commercial banks to the public.

Recommendations

Firstly, the ADB Bank should encourage strong solidarity groups for loans to mitigate high loan default. Group members must clearly understand their roles and responsibilities and fully understand that they are individually signing for the loans of each group member. Also, study recommends that, an orientation programme on proper book keeping practices, debt and credit best practices and financial management should be given to clients prior to disbursement of funds. This will decrease non-performing loans and finally increase profit of AD bank.

Secondly, the study recommends that ADB should give in service capacity building training to their credit officers so as to increase their efficiency in risk analysis and also decrease the disbursement lags. This will decrease loan default, non-performing loans and boost the profit of AD Bank.

The study further recommends that commercial banks especially, ADB should reduce loan processing and insurance fees and their operation cost so as to minimize high interest rate and reduce loan default. Again, government through Bank of Ghana should implement strategies such as a reduction in the Base rate which leads to lower lending rate. This will impact positively on ADB profitability the commercial banks as a whole.

Again, the study recommends that, monetary and fiscal policy institutions in Ghana especially Bank of Ghana through its Monetary policy committee should adopt proactive and effective measures to tackle inflation in the country. More especially, “inflation targeting”, which is serving as a nominal anchor for market participants should be well implemented to pin down the expectations of investors. Stable inflation boost investor confidence and also reduces both systematic and unsystematic risk on investment portfolio. This will reduce operational cost of banks, businesses, and lending rate of commercial banks. Lower interest rate will boost productivity, increase income levels of economic agents and subsequently leads to a decline in NPLs.

Investment in the agricultural sector such as subsidies on farm implements, proper road network to connect farming communities to urban centers and increase the production of traditional and non-traditional cash crops should be promoted to aid sustainable growth. Again, interest free loans for farmers and low interest rate on credit facilities should be given to Small and Medium Scale Enterprises in the country to boost production and subsequently increase GDP. This will increase the profitability of commercial banks.

Furthermore, the study found a negative relationship between NPLs and banks profit and thus, recommends that, the commercial banks especially, ADB should embark on rigorous loan recovery drive and also take proactive measures to decrease factors identified both in theory and empirical research to be the main causes of loan default and non-performing loans.

Lastly, the study recommends that, further research be conducted along similar line using more variables and more banks.

Suggestion for Future Studies

The study has looked non-performing loans and profitability of commercial banks in Ghana using Agricultural Development Bank as a proxy bank in the banking industry. The study suggests that, future studies be conducted into non-performing loans and profitability of commercial banks using cross-sectional data either within the country or the sub-region of West Africa.

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APPENDIX

UNIVERSITY OF CAPE COAST

COLLEGE OF HUMANITIES AND LEGAL STUDIES

DEPRATMENT OF ACCOUNTING

INTERVIEW QUESTIONS

Dear Sir/Madam

As part of the requirement for the award of Master's degree in Business Administration in Accounting, I am conducting a study into **"Non-Performing Loans and Profitability of Commercial Banks in Ghana: A Study of Agricultural Development Bank"**

I would be very grateful if you could support this study by providing answers to the following questions. You are assured of anonymity of your identity and confidentiality of your response.

QUESTIONS

What do you think are some of the hindrances that cause clients to default their

loan?..

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Why do clients feel reluctant to pay their loan on time?

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To the clients or beneficiaries of loan

What makes you unable to pay your loan on time?

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What are the factors or reasons for your refusal?

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In your own opinion, what do you think are the causes of loan default?

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