



A PANEL STUDY OF CREDIT MANAGEMENT DIMENSIONS AND LOAN PERFORMANCE OF NIGERIAN BANKS

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Abstract

The study examines the impact of credit management dimensions on loan performance of Nigerian banks. The study adopted a quantitative approach that employed the ex-post facto research design that focused on the panel data study. The population consisted of the entire 22 listed banks in Nigeria according to the report made by CBN (2019). The sample size is made up of 10 listed banks that are listed before the year 2010 and were not delisted before the year 2019. This was used to provide an adequate time frame necessary to establish the causes and effect of the occurrence. The methods of analysis were correlation and regression. The study establishes that credit risk has a positive relationship with the loan performance of Nigerian banks while interest spread and interest rate charged have a negative relationship with the loan performance of Nigerian banks. This implies that the interest rate charged and increase in interest disparity employed by Nigerian banks has led to poor loan performance. The study, therefore, recommends that Nigerian banks should apply efficient and effective credit risk management that will ensure that loans are matched with ability to repay, loan defaults are projected accordingly, and relevant measures taken to minimise the same. Nigerian banks should also enhance periodic credit risk monitoring of their loan portfolio to increase the loan performance.

Keywords: Interest Spread, Rate, Risk credit, Credit management, Loan performance, Bank

INTRODUCTION

Deposit Money Banks constitute a major component of the financial institutions in any particular country. Therefore changes in the performance of the sector have adverse implications on the country's economy (Boshed, 2000). The sector acts not only as the custodian of the wealth of the country but also as resources of the country which are necessary for the sustainability of the nation. The general role of commercial banks is to provide financial services to the general public and businesses, ensuring economic and social stability and sustainable growth of the economy. Globally, there is no nation that can experience sustainable development without sound financial system. Consumer News and Business Channel (2020) recently revealed that the market capitalisation of the global banking quarter stood at 7.9 trillion Dollars as of October 2019. It has been estimated that by 2022, the sector is expected to attain 26.5 trillion (MarketScreener, 2020). According to Erdal and Ekinici (2013), the banking sector constitutes an essential portion of the financial system and thus it is fundamental to achieving sustainable economic growth.

However, in Nigeria, the sector contends with unhealthy competition and challenges such as the novel COVID-19 pandemic and asset management challenges owing largely to official recklessness amongst managers, unhealthily competitions, and macroeconomic shocks and



sometimes its operational inefficiencies in how loans are disbursed. Rising default rates over time have led to periodic spikes in the non-performing loans (NPLs). Evidently, the report of the National Bureau of Statistics reveals that Nigerian banks' non-performing loans stood at N1.44 trillion in the second quarter of 2019. This negative signal has eroded the confidence potential local and foreign investors have in Nigerian banks.

Credit management has been widely appreciated by financial analysts as a tool to minimise loan losses (Barton, Shenkir & Walker, 2002). According to Njeru, Mahhamed and Wachira (2017), the success of financial institutions largely depends on the effectiveness of their credit management system because these institutions generate most of their income from interest earned on loans extended to customers. Kisala (2014) argues that credit risk has always been a concern not only to bankers but to the entire business world because the risks of a borrower not fulfilling his obligations in full on due date can seriously jeopardise the performance of a financial institution. According to Alobari, Naenwi, Zukbee, and Grend (2018), credit management process involves various steps namely; credit risk identification, measurement, monitoring and control. However, the few available studies carried out previously focused mainly on credit models used by commercial banks and their impact on profitability (Njeru, Mahhamed and Wachira 2017). This study justifies the details to fill the existing gap in the literature by investigating the impact of dimensions of credit management on loan performance. The objective of this study is to examine the impact of credit management on loan performance of Nigerian Deposit Money Banks.

LITERATURE REVIEW

Conceptual Review

Credit Management

According to Alobari, Naenwi, Zukbee, and Grend (2018), credit management process involves various steps namely: credit risk identification, measurement, monitoring and control. Credit identification involves singling out the risk associated with a particular credit. Credit risk arises from potential changes in the credit quality of a borrower. Linet and Willy (2017) define credit risk management as the identification, assessment, and prioritisation of risks followed by coordinated and economical application of resources to minimise, monitor, and control the probability and/or impact of unfortunate events or to maximise the realisation of opportunities. Oyedele, Adeyemi and Fasesin (2018) view credit management as simply the means by which an entity manages its credit sales. It is a prerequisite for any entity dealing with credit transactions since it is impossible to have a zero credit or default risk. Nwanna and Oguezie (2017) opine that credit management greatly influences the success or failure of commercial banks and other financial institutions. Poudel (2012) describes credit management as methods and strategies adopted by a firm to ensure that they maintain an optimal level of credit and its effective management. It is an aspect of financial management involving credit analysis, credit rating, credit classification and credit reporting. Fathi, Zarei and Esfahani (2012) see credit risk management as a systematic application of management policies, procedures and practices to the tasks of identifying, analysing, assessing, treating, and monitoring risk. Taiwo, Ucheaga, Achugamonu, Adetiloye, Okoye and Agwu (2017) view credit management as methods and strategies adopted by organisations to ensure that they maintain an optimal level of credit and its effective



management. It is an aspect of financial management involving credit analysis, credit rating, credit classification and credit reporting. Nzotta (2004) describes credit management as a means by which an entity manages its credit sales. It is a prerequisite for any entity dealing with credit transactions since it is impossible to have a zero credit or default risk.

Non-performing Loans (NPLs)

The concept of NPLs has been viewed from different perspectives by different scholars in financial literature. For instance, Caprio and Klingebiel (1999) describe NPLs as loans that do not generate income over a sustained period of at least three months. In another study, Alton and Hazen (2001) express NPLs as loans that are 90 days or more past due or no longer accruing interest. According to Njeru, Mohhamed and Wachira (2017), a nonperforming loan is either in default or close to being in default. Once a loan is nonperforming, the odds that it will be repaid in full are considered to be substantially lower. If the debtor starts making payments again on a nonperforming loan, it becomes a reperforming loan, even if the debtor has not caught up on all the missed payments (Njeru, Mohhamed & Wachira, 2017). The IMF Financial Soundness Indicators Compilation Guide of 2006 recommends that loans are classified as non-performing when payment of principal and interest are past due by three months or more or when interest payments equaling three months or more have been capitalised or rolled over.

Akkizidis and Khandelwal (2008) lament that financial institutions holding nonperforming loans in their portfolios may choose to sell them to other investors in order to get rid of risky assets and clean up their balance sheets. Sales of nonperforming loans must be carefully considered since they can have numerous financial implications, including affecting the company's profit and loss, and tax situations (Akkizidis & Khandelwal, 2008). In recent times, NPLs have been trending and becoming a cause of concern for banks' stability in the face of reeling economic downturn and devastation of COVID-19 pandemic. The National Bureau of Statistics (2020) evidenced that non-performing loans (NPLs) of financial institutions stood at N1.44 and 1.79 trillion in 2019 and 2018 respectively.

Theoretical Framework

Transaction Cost Theory

Transaction cost theory (Williamson, 2010) posits that the optimum organisational structure is one that achieves economic efficiency by minimising the costs of exchange. The theory suggests that each type of transaction produces coordination costs of monitoring, controlling, and managing transactions. Williamson defined transaction costs broadly as the costs of running the economic system of firms. He argued that such costs are to be distinguished from production costs and that a decision-maker can make a choice to use a firm structure or source from the market by comparing transaction costs with internal production costs. Thus, cost is the primary determinant of such a decision. According to Harrington and Niehaus (1999), the theory conjectures that suppliers may well have an advantage over traditional lenders in checking the real financial circumstances or the credit worthiness of their clients. Suppliers also have a healthier ability to monitor and compel repayment of the credit. All these superiorities may give suppliers a cost advantage when compared



with financial institutions (Nduta, 2013). According to Milcah, Kirochi and Joseph (2014), transaction costs in credit markets are indirect financial costs generated by various processes, including the costs of searching and collecting relevant information about clients, negotiation procedures and agreements, opportunistic behaviour of the clients failing to fulfill loan terms, risk-averse behaviour associated with credit rationing and monitoring, and enforcement costs incurred to determine whether the clients are adhering to contract terms. Transaction cost economic theory argues that banks are not interested in offering credit to clients when they find it extremely difficult to ascertain if borrowers have the capacity to pay (have viable project) and/or willingness to pay (due to moral hazard) (Eppy, 2005). Driga (2012) amplifies this argument by pointing out lack of adequate and reliable collateral, lack of appropriate instrument to manage risk, not being familiar with complicated information about borrowers and perceived risks make commercial banks in Nigeria unwilling to provide the much-needed finance to borrowers.

Empirical Review

Previous research on the relationship between credit management and loan performance are reviewed because of their relevance to this current study. Reta (2011) examined the factors influencing the loan repayment performance of the beneficiaries of ADCSI Microfinance Institution in Addis Ababa. The results indicated that age and business types were important in influencing loan repayment performance of the borrower. In addition, sex and business experience of the respondents were found to be significant determinants of loan repayment rate. Warue (2012) carried out an empirical analysis of external factors affecting loan delinquency performance in MFIs in Kenya. The results showed that external factors have significant relationship with loan delinquency performance in microfinance institutions in Kenya. In another study, Sindani (2012) investigated the effect of credit management system on loan performance in Kenya. The finding revealed that credit management had a positive effect on loan performance. The study carried out by Ahamed, Abdul and Abdul (2016) revealed that loan appraisal, financial viability, technical feasibility, credit rating, risk transfer, risk diversification and risk retention have no significant relationship with loan performance.

Lucy (2015) carried out a study on the effects of client appraisal on loan repayment. The results were analysed using descriptive statistics and inferential statistics. The findings of the study showed a strong relationship between credit assessment and loan repayment. Peterson (2014) examined the effect of credit risk management on the loan performance of microfinance institutions in Kenya. The finding revealed that there is significant relationship between loan performance and credit risk management. Ngwira and William (2017) also evaluated how credit risk management practices impact loan performance in selected microfinance companies of Lusaka district, Zambia. The findings of the study revealed that credit management dimensions have a strong correlation on the performance of the loans. Linet and Willy (2017) examined the effect of credit risk management on loan performance in Kenyan commercial banks. They established that there exists a statistically significant relationship between credit management and loans performance. Moti, Masinde, Mugenda and Sindani (2012) also affirmed that credit management practices have a higher effect on loan repayment. Sufi and Qaisar (2015) evaluate the influence of credit risk management practices on loan performance. The results of the analysis revealed that

credit management has a positive and significant impact on the loan performance. Njeru, Mohhamed and Wachira (2017) also analysed the effectiveness of credit management system on loan performance of commercial banks in Kenya. The results showed credit management as having a strong relationship with loan performance.

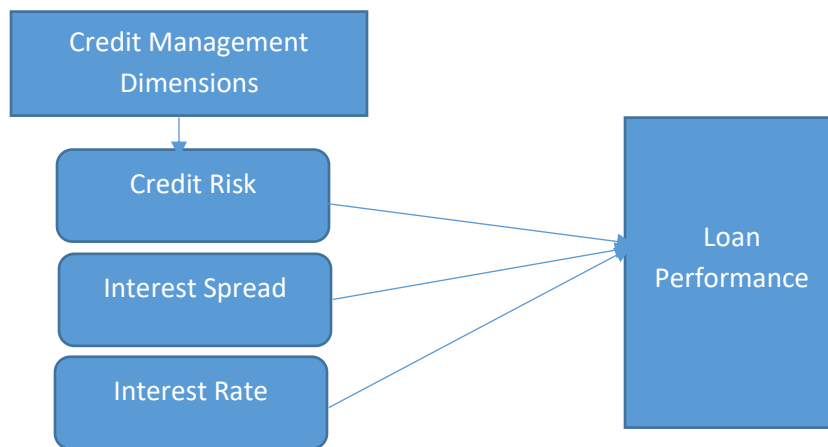
Based on the above empirical studies, this study therefore hypothesises that:

H₁: Credit management dimensions have impact on the loan performance of Nigerian banks.

Gap in Literature

The available studies such as Reta (2011), Warue (2012), Sindani (2012), Ahamed, Abdul and Abdul (2016), Lucy (2015), Peterson (2014), Ngwira and William (2017), Linet and Willy (2017), Moti, Masinde, Mugenda and Sindani (2012), Sufi and Qaisar (2015), and Njeru, Mohhamed and Wachira (2017) are foreign and their findings may not be applicable in the Nigerian context due to different environmental and economic factors. Academically, there is a paucity of studies that link credit management dimensions to loan performance in Nigerian banks. This current study, therefore, intends to fill this existing gap in the literature.

Conceptual Framework



METHODOLOGY

This study adopts a quantitative approach that employs the ex-post facto research design which focuses on the panel data study. The population consist of the entire 22 listed banks in Nigeria according to the report made by CBN (2019). The sample size is made up of 10 listed banks that are listed before the year 2010 and were not delisted before the year 2019. These are used to provide an adequate time frame necessary to establish the causes and effect of the occurrence. Secondary data from the annual reports and financial statements of all the banks in the sample for ten years (2010-2019) each, as reported by the Nigerian Stock Exchange (NSE) was used. NSE data has undergone a lot of scrutiny by several analysts thereby making the data reliable, objective and accurate for the study. The panel data analytical technique was employed to measure the



relationship between the independent and dependent variables. The methods of analysis used were Pearson Moment Correlation Coefficient and Linear Regression.

Model Specification

Credit management is measured by Credit risk (CR), Interest rate spread (IS), and interest rate (IR), while Loan Performance is measured as a percentage of loan repaid to the total amount of loan advanced to clients (Peterson, 2014; Lucy, 2015; Linet & Willy, 2017).

Therefore;

$$Y = f(X_1, X_2, X_3)$$

$$Y = \beta_0 + \beta_1 CR + \beta_2 IS + \beta_3 IR + e$$

Y= Loan Performance measured as a percentage of loan repaid to the total amount of loan advanced to clients.

X₁= Credit risk measured using risk coverage ratio measured as loan loss reserve divided by portfolio at risk

X₂= Interest rate spread calculated as (interest rate on gross Outstanding Loan Portfolio)- (interest rate paid on gross outstanding funding liabilities)

X₃=interest rate measured as the interest rate charged on the loan advanced to consumers

e = Error term: captures variables that were not included in the model.

β₀ = Constant Term: The average loan performance holding the explanatory variables constant

β₁- β₃ = Beta coefficients measures the changes in dependent variable attributed to the changes in explanatory variables.

RESULTS AND DISCUSSION

Table 1: Result of Correlation Analysis

Model	r-value	p-value	Remark
Interest rate	-0.708*	0.000	S
Interest rate spread	-0.665*	0.000	S
Credit Risk	0.562	0.060	NS

From Table 1, it can be deduced that credit management dimensions have relationship with loan performance. Specifically, credit risk (r =0.562; Pns) has a positive but insignificant relationship with the loan performance of Nigerian banks while interest spread (r = -0.665; Ps) and interest rate charged (R=-0.708; Ps) have a negative and significant relationship with the loan performance of Nigerian banks. The implication of this finding is that the high level of interest disparity and interest rate charged on loan advanced has increased the default rate thereby negatively affecting loan performance of Nigerian banks.



Table 2: Result of Regression Analysis

Model	R	R ²	Adjusted R ²	Std error of the estimate		
1	0.762	0.581	0.371	0.40953		
Explanatory variable	β	Std error	t – value	p- value	Remarks	
Constant	4.445	.929	4.785	.003		
Interest rate spread	-.249	.203	-1.224	.267	NS	
Interest Rate	-.263	.130	-2.034	.088	NS	
Credit Risk	.187	.176	1.066	.328	NS	

Table 2 reveals that credit management dimensions (credit risk, interest rate spread and interest rate) jointly contribute 58% to loan performance. F-value of 2.770 and p-value of 0.133 implies that credit management has insignificant impact on loan performance. The study further reveals that interest rate spread ($t = -1.224$; $p = 0.267$) and interest rate ($t = -2.034$; $p = 0.088$) were independently have an inverse impact on loan performance, while credit risk ($t = 0.187$; $p = 0.328$) has a positive but insignificant impact on loan performance. This implies that effective credit management dimensions are not well rooted in Nigerian banks. No wonder non-performing loans are increasing geometrically and the sector continues to experience dwindling profit.

If the prediction of the IMF (2020) that the sector's income will be adversely hit hard by the financial shock of the novel COVID-19 and nonperforming loans and the sector will remain under stress through 2025 comes to pass, effective credit management must be implemented without prejudice to the policies of regulatory authorities.

CONCLUSION AND RECOMMENDATIONS

The study examines the impact of credit management dimensions on loan performance of Nigerian banks. The study adopted a quantitative approach that employed the ex-post facto research design that focused on the panel data study. The population consisted of the entire 22 listed banks in Nigeria according to the report made by CBN (2019). The sample size was made up of 10 listed banks that are listed before the year 2010 and were not delisted before the year 2019 to provide an adequate time frame necessary to establish the causes and effect of the occurrence. The methods of analysis used were correlation and regression. The study concludes that credit risk has a positive



relationship with the loan performance of Nigerian banks while interest spread and interest rate charged have a negative relationship with the loan performance of Nigerian banks. This implies that the interest rate charged and increase in interest disparity employed by Nigerian banks has led to poor loan performance. The study therefore, recommends that Nigerian banks should apply efficient and effective credit risk management that will ensure that loans are matched with ability to repay, loan defaults are projected accordingly, and relevant measures taken to minimise the same. Nigerian banks should also enhance periodic credit risk monitoring of their loan portfolio to increase the loan performance.

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