

## Original Research Article

### **CREDIT MANAGEMENT PRACTICES AND LOAN DEFAULT IN DEPOSIT MONEY BANKS (DMBs) IN OSUN STATE, NIGERIA**

#### **Abstract**

Background: Loan default has been shown in existing literature to have a negative impact on banks as it reduces the performance of banks and may lead to total collapse of these institutions. The high rate of default associated with loans in Nigerian banks is indicative of existing poor credit management practices by the banks.

Aim: As such, this study examined the effect of credit management practices on loan default in deposit money banks in Osun State.

Method: The study employed the survey research design, using a well-structured questionnaire to collect responses of one hundred and twenty (120) officers and managers from two hundred and fifty two (252) officers and managers of sixty (60) bank branches in Osun State. Using descriptive and multiple linear regressions, the collated data was presented using tables, while the research hypothesis was tested at the 5% level of significance.

Findings: The study found that credit management has no significant effect on loan default, with both credit appraisal and credit monitoring exhibiting negative but non-significant effects on loan default, and credit collection policy exhibiting positive and significant effect on loan.

Conclusion: The study concluded that credit management practices have no significant effect on loan default. In other words, loan default experienced in the banks were not influenced by the loan management practices put in place. While the processes were in existence in the banks under investigation, they have not been able to affect the incidences of loan default.

Keywords :Credit appraisal; Credit collection policy; Credit/loan monitoring; Credit management; Loan default; Loan delinquencies.

## **1 INTRODUCTION**

A customer defaults when he or she is unable to meet loan terms, resulting in non-repayment of a loan that has reached maturity (Koc & Sevgili, 2020). When a consumer misses his loan repayment requirements by one or two instalments, delinquency sets in and ultimately leads to a default. The act of banks and other financial entities extending credit generates debts that must be repaid. A loan repayment plan is often a well-organized study of the agreement between the borrower and the lender regarding the payback pattern. There is predetermined payback duration, an instalment schedule with due dates and a maturity date. Loan default is the result of a borrower's failure to repay. The outstanding balance is considered delinquent when the anticipated loan payback is not made according to the repayment schedule (Boateng, 2018). Loan delinquency and loan default are similar, but loan delinquency refers to irregularities in loan payments, whereas loan default refers to a delinquency that goes unchecked, resulting in the loan turning bad.

Globally, individuals default on their loans. Similar inconsistencies in repayment characteristics have been observed among bank borrowers in various climates worldwide. According to information from the Federal Reserve Bank of New York (2016), approximately fifty percentages of family units in the United States are unable to repay credit card-related loans in full. This proportion of the population is indebted to the tune of over \$700 billion, with each typical household owing approximately \$15,000. From month to month, these households carry a balance in the amount they own. However, in European nations such as Portugal, loan default is also a significant problem that is mitigated by banks' provision of credit facilities to borrowers with collateral. This is to guarantee repayments to avoid default.

Due to weak economic development, loan default is a typical occurrence in the majority of African nations. This is exacerbated by the fact that many African borrowers, both individual and corporate, have a terrible credit culture. As of 2017, the loan recovery performance in Ghana stands at 53%. This indicates that fifty percentages of the total debt was not repaid by the end of the repayment period (Boateng, 2018). This also holds true for many African nations. The default of a loan has a negative effect on banks, as it affects their performance and may lead to their ultimate collapse.

Loan default has resulted in a huge increase in Nigerian banks' non-performing loan portfolio, which has a negative impact on their performance. According to the National Bureau of Statistics (2019), non-performing loans accounted for 11.67% of total loans given in the banking sector in the fourth quarter of 2018. When seen in terms of absolute value, the significance of this percentage is fairly astounding. This percentage is ₦1,792,478,596,557.71 (one trillion, seven hundred and ninety-two billion, four hundred and seventy-eight million, five hundred and ninety-six thousand, five hundred and fifty-seven naira, seventy one kobo). This shows that non-performing loans are posing a severe danger to the banking industry. How can we determine if a loan has defaulted? Delinquent loans lead to non-performing loans, which is not a far-fetched explanation. When consumers fall behind on their loan payments (debt overdue) and nothing is done about it, the loan will become non-performing. Managing and monitoring the credit process from client loan application to recovery is a proactive technique in dealing with loan default.

In this research, a major finding against the existing related literature on credit management and loan default is the striking outcome that credit management practices and strategies of the banks have no significant effect on loan default. In the breakdown, credit appraisal and credit monitoring were found out to have a negative non-significant effect on loan default. Collection policy however has a positive significant effect on loan default. These findings do not support the existing literature on the subject. The study suggested that other parameters such as nature of insider loan management should also be considered.

In their study in AkwaIbomState, Emenyonu et al. (2018) discovered that credit management is a significant element that influences loan delinquency. Other contributing factors that determine the nature of payback are interest charged, client age, education status, loan tenor, and stage of business. They discovered that loan diversion and loan default have a substantial relationship. It should also be mentioned that, in addition to borrowers' demographic features, As a result, banks with good credit management processes are better positioned to prevent consumer loan default.

The high incidence of loan default in Nigerian banks demonstrates that credit administration methods have been inadequate. Increasingly, banks are exposed to repayment risk at rates considerably higher than the rate at which loans are obtained. As a result, banks should prioritize their credit management processes. Collins et al. (2018) stated that credit management commences with loan approval and concludes with the collection of the borrower's last payment.

Due to ineffective screening criteria by Nigerian banks, loan defaults have continued unabatedly. Despite the tough safeguards implemented by the banks, the selection criteria were constrained by the prevalence of information asymmetry (Ofonyelu&Alimi, 2013). Adu et al. (2019) cited insufficient monitoring of loan utilization to prevent loan diversion as a significant reason of big loan defaults in microfinance institutions.

The paper seeks to examine the effect of credit management practices on loan default. The next section reviews the existing concept, theories and literatures on the topic while sections three four and five explains the methods, result and conclusions respectively.

## **1.2 RESEARCH HYPOTHESIS**

**Credit management does not have any significant effect on loan default in deposit money banks in Osun State.**

## **2 REVIEW OF LITERATURE AND THEORETICAL FRAMEWORK**

### **2.1 Conceptual Review**

**Credit Management:** Mirpourian et al. (2003) defined credit management as the technique and policy used by a business organization in order to ensure the optimal level of credit. Credit evaluation, score, organization, and reporting comprise this component. According to Sahlemichael (2009), the credit management process includes the acceptance of loan applications from consumers, review, authorization, observation, and repayment of bad debts. As corporations cannot completely eliminate credit risk, this is a prerequisite that they utilize to manage their credit transactions. Credit management is the core of bank operations since it ensures their survival. It establishes the technique and policy for collecting and monitoring the repayment of bank credit clients (Emenyonu et al., 2018). While many authors think that credit management begins with client inquiry and concludes with loan collection, there are small variances in how they classify the procedures that comprise the process. Despite this, other publications used comparable terminology to describe the process. Some publications simply divide the process into two or three processes, while others include a wider list of credit management process components.

**Loan Default:** Loan default occurs when a borrower fails to fulfil his or her obligation to repay obligations. When debtors wilfully refuse to pay back loans or lack the ability to make repayments, loans may go sour (Asongo&Adamu, 2014). Defaulting on a loan implies an increase in risk of loss, a credit management issue, and may aid in forecasting the proportion of a portfolio that will never be repaid (Addae-Korankye, 2014). A competent credit management system will appropriately monitor loan default. Other contributors to loan default include incorrect timing of disbursements, an intolerable interest rate, poor loan client education, and administrative incompetence. Consequently, the management of the banks should reduce the number of nonperforming loans on their books and ensure that credit applications from prospective borrowers are thoroughly evaluated to assist them in obtaining lending facilities (Alalade et al., 2016). According to Malik (2021), loan default can be decreased by enhancing the efficiency of operations such as loan assessment and customer evaluation, conveying the loan objectives of banks to lenders, implementing adequate loan monitoring, and evaluating the credit risk associated with each borrower.

## 2.2 Theoretical Review

**Asymmetric Information theory:** The idea of information asymmetry was originally presented around early 1970s to explain a situation where there exists an unequal knowledge between each party to a business transaction. The concept was developed by Akerlof in 1970, Spence in 1973 and Stiglitz in 1975. According to the theory, in a business transaction, neither party has the same level of information regarding the transaction. Akerlof in 1970 as quoted in Auronen (2003) assumes four (4) car categories: old, new, good and bad. "Lemons" are terrible categories. The likelihood of a nice car is  $q$ , while a lemon is  $1-q$ . After some time with the car, the customer can assign more precise probabilities than  $q$  or  $1-q$ . This transaction has information asymmetry between the seller and buyers. This principle also applies to a transaction between a bank and a borrower in credit processing and administration, since it is impossible to distinguish between good and bad borrowers (Auronen, 2003).

In support of the theory are assertions that it is simple to comprehend and apply, and that it has been used to analyse and recognize the significance of information as a market determinant (Auronen, 2003). According to Spread (2015), contrary to common belief, asymmetric information fails to address actual world problems. Stiglitz (2002) emphasized that the theory may not necessarily address the information problem when the individual involved in the transaction is willing to offer the information. In order to explain the examination of the information provided by the borrowers to the bank in order to make a credit decision, the theory of asymmetric information becomes applicable. This will enable the bank in determining whether to approve or deny the credit application based on the proper credit transaction information, so preventing adverse selection, thereby reducing loan default (Muthoni et al., 2020).

**The Anticipated Income Theory:** Prochanov in 1944 introduced the concept of the Anticipated Income Theory following the establishment of the method by which commercial banks in the United States make term loans. His approach was predicated on the premise that the loan applicant's anticipated income would serve as the source of repayment for the term loan.

The loan is issued with the idea that repayment will be made in instalments from the debtor's predicted cash flow, as opposed to a single payment upon expiration of the credit (Akani&Akani 2018).

The idea, as supported by Ibe (2013), provides a framework for judging the borrower's creditworthiness. Mohammad et al. (2020) identified several flaws in the theory, such as its assumption that all loans may be repaid on time, without taking into account the likelihood of loan default owing to external or internal circumstances. They also disagree over the theory's inability to explain the sudden demand for credit. The proponents of other theories, such as the Commercial loan theory, contend that this theory fails to arrive at the correct conclusion on the type of loan that banks should obtain. The credit management process through credit appraisal, monitoring and collection process aims to ensure that the borrower has the capacity to pay from his future income based on the documents presented for analysis.

**The Credit Risk Theory:** Merton in 1974, proposed the idea of Credit Risk based on his theory of default. He created the default model of credit risk by defining the corporate entity's equity as a call option on its assets (Hull et al., 2005). Further leveraging the concept, Rossi (2003), as quoted by Adegbie and Otitolaiye (2020), developed three key techniques to measuring credit risk. These concepts were derived from Monte Carlo simulation and include loan spreads, credit portfolio management, and loss spreading. Wang (2009) bolsters the theory's appeal by demonstrating that it provides a relationship between credit risk and basic variables. He believes it ensures an inherent financial explanation and internal account of repayment failure, while allowing the application of option pricing strategies.

Black and Cox in 1976, however challenged the model for its naive assumption that a corporation may only fail on its debt on its maturity date. They believe that default can occur at any stage of a loan, including in the beginning. The biggest downside of the model, according to Wang (2009), is its difficulty to implement, as it tends to be analytically complex and computationally costly. Relevant to this study is the fact that all credit risk processes and methods strive to reduce instances of non-repayment by clients, hence decreasing loan default

### **2.3 Empirical Review of Related Studies**

Many previous studies have considered credit risk management, credit management process or credit characteristics and their impact on loan performance. Among them is Furfine (2014) investigated the association between deal complexity and loan performance in the United States. The analysis is based on a sample of around 40,000 commercial mortgage-backed securities home loans (CMBS). Complex securitization loans perform poorly. According to him, neither the price of a transaction's securities nor its risk retention represented the correlation between higher complexity and lower credit quality. His research found that banks are exerting less effort to collect soft data that may serve as future indicators of loan default.

Emekter et al. (2015) who assessed credit risk and performance utilizing Lending Club data. The study assessed 61,451 credit applications submitted to Lending Club between May 2007 and June 2012 utilizing the pertinent facts. Low repayment rates were observed for loans with lower interest rates and longer terms. The imposition of a higher interest rate on high-risk borrowers is insufficient to cover the high default rate in this category. It is crucial that the club only provide loans to customers with a high income and credit score.

Ayen and Demissie (2015) investigated loan facilities in connection to the characteristics of farming groups' loan repayment activities in Ethiopia's Jimma zone. Using judgemental sampling to consider Woredas for the study, 215 respondents were selected at random and a standardized questionnaire was employed to collect data. Education, health, land ownership, and female-headed households were found to increase credit repayment, whereas family size, distance from the credit source, and social gatherings had a negative effect. In terms of loan payback, female borrowers performed better than their male counterparts, according to the survey. They proposed that more should be done by institutions to empower women.

Adeola and Ikpesu (2017) investigated the macroeconomic determinants of nonperforming loans in Nigeria. The two utilize secondary source time series data for the years 2005 to 2014. The dependent variable is the non-performing loan, whereas the independent variables are the gross domestic product growth rate (GDPGR), inflation, lending rate, exchange rate, money supply to GDP, and unemployment rate (UR). According to the study, the dependent

variable has a positive and considerable relationship with LR, M2GDP, and UR. GDPGR, INF, and ER all exhibit a positive but insignificant correlation with NPL. In order to prevent loan defaults, they proposed that authorities guarantee that lending rates are acceptable.

Obuya and Olweny (2017) examined the effect of bank lending behaviour on loan losses at publicly traded commercial banks in Kenya. The data was extracted from the CBK Annual Reports and audited financial statements of several Kenyan commercial banks. The descriptive statistics and Ordinary Least Squares (OLS) approach are utilized. The study demonstrates that banks' lending practices impact loan losses. They urge that, when accounting for loan losses, banks should always consider both the overall amount of loans extended to consumers and the quality of such loans.

Kariu and Mungai (2018) analysed the impact of risk factors on the repayment of unsecured loans at financial institutions in the Kenyan city of Nanyuki. The research utilized a standardized questionnaire that was distributed to department heads and branch managers of the selected institutions. Utilizing descriptive statistics to aggregate findings, regression equations were utilized to forecast loan performance values based on independent variables including information technology, risk analysis, risk monitoring, and risk reporting. The outcome demonstrated that risk management and loan performance are strongly correlated. In order to prevent loan defaults, banks should focus more on their risk management techniques.

Saini and Tayal (2018) observed that despite the evaluation of risk scenarios by banks, many bank loans are not recovered. They explained that the problem of non-performing loans affects nearly every bank in India. They evaluated the nonperforming loan recovery trend in light of the Securitization Act of 2002, highlighting both its success and failure. Using ratio analysis and descriptive statistics, loan series data from 2003 to 2017 is analysed. In the fourteen years preceding the study, financial institutions were unable to recover an average of 70 percentages of their nonperforming assets due to the act. Less than 30 percentages of NPA have been effectively recovered, indicating that the act has been ineffective overall.

Romer et al. (2018) investigated whether small company loan applicants in the Philippines provide accurate information about their income. Using a randomized controlled trial

bogus pipeline experiment, 243 credit clients from the food and agricultural industries were analysed for their cash flow. The experiment indicated that the applicants in the treatment group have a lower income, which reduces loan delinquency. In contrast, the control group had higher loan default rates. Another inquiry revealed that the bank's loan evaluation methods do not adequately verify the applicants' income information.

Collins et al. (2018) examined the relationship between credit management and bank performance in Nigeria. Eleven financial firms supply 66 study participants. Each bank is represented by one Branch Manager and five senior staff members. The impact of credit management variables on bank performance is explicated using multiple regression analysis. Credit Management is characterized by Credit Evaluation, Credit Risk Management, and Collection Policy. The study reveals that credit management has a substantial impact on Nigerian bank performance. Credit risk management is the most significant of the three. Therefore, in order to improve their performance, banks are urged to take credit management seriously.

Hasanaj and Ahmetaj (2019) investigated the prevalence of poor credit facility performance within banking institutions. One hundred Kosovo commercial bank clients with business or personal loans were given structured questionnaires. The outcomes were illustrated through graphs and charts. This was also used to compare statistics on non-performing loans in Kosovo to those of other former Yugoslavian governments. In comparison to other surrounding nations, their investigation revealed that loan interest rates were high, but non-performing loan rates were low. The report also urged financial institutions to enhance their present credit risk supervision while simplifying their loan processes and procedures.

In India's Kanyakumari District Public Sector Banks, Naveenan et al. (2019) analysed the effectiveness of control methods in preventing non-performing loans and managing current ones. Based on secondary data gathered from the doctoral dissertation titled "A Analysis on Handling Non-Performing Assets with Particular Reference to Public Sector Banks in Kanyakumari District," this study was conducted. The data are examined using the Friedman Test, which investigates differences between two independent ordinal variables. For preventing and regulating non-performing loans, the study discovered that control measures such as selection of

the suitable borrower, feasible economic activity, non-diversion of funds, and timely loan recovery are crucial.

Karanja and Simiyu(2022) investigated how credit management practices affect the performance of microfinance institutions in Kenya by using credit policy, customer evaluation, collection policy, credit conditions and credit risk management as proxies for credit management strategies. They employed a descriptive research approach and made use of both primary and secondary data in developing a linear regression model for their study. They observed that firms conducted client appraisals and these appraisals were effective. Their study found out that loan default was low and that effective loan monitoring is capable of checking loan default.

According to Afolabi (2021), microfinance banks should observe strictly, client appraiser techniques for effective credit management. In his study on the impact of credit management practices on loan performance among microfinance banks in Nigeria, he observed that client appraisal has a positive significance impact on loan performance while credit term and collection policies have positive and negative non-significant impact consecutively. The data was obtained from structured questionnaire using 180 microfinance banks and analysed using ordinal logic regression technique.

Governance in credit disbursement process, identification of borrowers, adequate credit appraisal, professional knowledge of clients, literacy, identification of client's credit status and loan monitoring are factors with potential for reducing loan default (Lamichhane, 2022). He observed this while investigating loan delinquency in microfinance institutions in Nepal. He concluded that institutional efficiency is potent in reducing loan delinquencies.

### **3 METHODOLOGY**

#### **3.1 Research design**

The descriptive research design was used to obtain information to systematically described credit management practices and loan default among licensed banks in Osun state, Nigeria.

### **3.2 Population of the Study**

Two hundred fifty-two (252) credit officers and managers from seventeen (17) deposit money banks of sixty (60) bank branches were utilized. These are the banks in Osun state that are registered with the Apex Bank as of 2019 and are active. These financial institutions were Access Bank Plc, EcoBank Plc, Fidelity Bank, First Bank, First City Monument Bank, and Guaranty trust Bank. Other financial institutions include Heritage Bank, Jaiz Bank, Keystone Bank, Polaris Bank, StanbicIBTC Bank, Sterling Bank, United Bank for Africa, Union Bank, Unity Bank, Wema Bank, and Zenith Bank (CBN, 2019). The sales managers/officers of the banks have been chosen because they directly process loans for consumers and are therefore in the greatest position to give accurate data on credit management.

### **3.3 Sample Size and Sampling Technique**

A sample of 120 sales officers and managers were selected from a population of 252 for the purpose of gathering the necessary information via questionnaire. Credit officers and bank managers were chosen through the use of sampling with purpose. The locations were Osogbo, Ede, Ile-Ife, Ilesa and Iwo.

### **3.4 Method of Data Analysis**

The Statistical Package for the Social Scientist (SPSS) Version 25.0 was used to compute the descriptive statistics and to determine the association between credit management practices and loan default using a multiple regression model. In addition, R Square ( $R^2$ ) and Adjusted R Square were utilized to describe the fraction of the observed difference in default that can be attributed to credit management practices. The study also examined ANOVA to confirm the regression model.

### 3.5 Model Specification:

Dependent variable = Loan Default (LD)

Independent variable = Credit Management (CM)

$$X = \text{CM} \quad (1)$$

$$X_1 = \text{Credit Appraisal (CA)} \quad (2)$$

$$X_2 = \text{Loan Monitoring (LM)} \quad (3)$$

$$X_3 = \text{Credit Collection (CC)} \quad (4)$$

$$Y = \text{LD} \quad (5)$$

$$\text{LD} = f(\text{CA}, \text{LM}, \text{CC}) \quad (6)$$

$$LD_i = \alpha_i + \beta_1 CA_i + \beta_2 LM_i + \beta_3 CC_i + \varepsilon_i \quad (7)$$

## 4 RESULTS AND DISCUSSION OF FINDINGS

### 4.1 Results

To ascertain the overall effect of credit management practices on loan default in deposit money banks, the following hypothesis and model are estimated:

**H<sub>0</sub>:** Credit management has no significant effect on loan default.

$$LD = \alpha + \beta_1 CA + \beta_2 LM + \beta_3 CC + \varepsilon$$

However, since the model above is a multiple regression model, there is the need to first test for multicollinearity in the model. This is because the presence of multicollinearity in a model reduces the explanatory and predictive power of the model. Multicollinearity problem exists when two predictor variables in a multiple regression are not independent but correlate highly.

**Decision Rule:** If the coefficient of the Pearson's correlation coefficient between two predictor variables is greater than 0.7, the conclusion is that there is evidence of multicollinearity in the model.

Using the test for correlation, the test for multicollinearity test is shown in Table 1:

**Table 1 – Pearson Product-Moment Correlation Test Result for Multicollinearity**

| Correlations   |    |                     |       |        |        |
|----------------|----|---------------------|-------|--------|--------|
|                |    |                     | CA    | LM     | CC     |
| Spearman's rho | CA | Pearson Correlation | 1.000 | .688** | .584** |
|                |    | Sig. (2-tailed)     | .     | .000   | .000   |

|  |    |                     |        |        |        |
|--|----|---------------------|--------|--------|--------|
|  |    | N                   | 120    | 120    | 120    |
|  | LM | Pearson Correlation | .688** | 1.000  | .605** |
|  |    | Sig. (2-tailed)     | .000   | .      | .000   |
|  |    | N                   | 120    | 120    | 120    |
|  | CC | Pearson Correlation | .584** | .605** | 1.000  |
|  |    | Sig. (2-tailed)     | .000   | .000   | .      |
|  |    | N                   | 120    | 120    | 120    |

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

Source: Researcher's Computation of Field Data using IBM SPSS 25

Therefore, from Table 1 correlation Table, since the coefficients of the Spearman's rho between each of the predictor variables are each less than 0.7, it leads to the conclusion that the model is free of multicollinearity problem, and is suitable for ascertaining the effect of credit management practices on loan default in deposit money banks.

Using multiple regression analysis, with credit appraisal, loan monitoring, and credit collection policy as the independent variables and loan default as the dependent variable, the estimated regression results are shown in the table below:

**Table 2 – Empirical Effects of Credit Management on Loan Default**

| Model Summary             |                   |                |                   |                            |       |                   |
|---------------------------|-------------------|----------------|-------------------|----------------------------|-------|-------------------|
| Model                     | R                 | R Square       | Adjusted R Square | Std. Error of the Estimate |       |                   |
| 4                         | .355 <sup>a</sup> | .126           | .104              | 9.17310                    |       |                   |
| ANOVA <sup>a</sup>        |                   |                |                   |                            |       |                   |
| Model                     |                   | Sum of Squares | df                | Mean Square                | F     | Sig.              |
| 4                         | Regression        | 1408.962       | 3                 | 469.654                    | 5.581 | .001 <sup>b</sup> |
|                           | Residual          | 9760.905       | 116               | 84.146                     |       |                   |
|                           | Total             | 11169.867      | 119               |                            |       |                   |
| Coefficients <sup>a</sup> |                   |                |                   |                            |       |                   |

| Model |            | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. |
|-------|------------|-----------------------------|------------|---------------------------|-------|------|
|       |            | B                           | Std. Error | Beta                      |       |      |
| 4     | (Constant) | 42.141                      | 6.110      |                           | 6.898 | .000 |
|       | CA         | -.107                       | .182       | -.071                     | -.587 | .559 |
|       | LM         | -.209                       | .284       | -.102                     | -.734 | .464 |
|       | CC         | .607                        | .168       | .451                      | 3.615 | .000 |

**Dependent Variable: LD**

Source: Researcher's Computation of Field Data using IBM SPSS 25

From Table 2, the estimated regression result is given as:

$$LD = 42.141 - 0.107CA - 0.209LM + 0.607CC$$

The regression result shows that only credit collection policy exhibits a positive effect on loan default (LD) as shown by the positive sign of the coefficient of CC. This implies that an increase in the credit collection policy would cause loan default to rise by about 61%. This effect is also significant as shown by the p-value (Sig) of the t-statistics of the coefficient of credit collection policy. Since the p-value is less than 0.05, the positive effect of credit collection policy on loan default is significant, implying that changes in the credit collection policy of the deposit money banks correlates with shifts in loan default.

On the hand, credit appraisal and loan monitoring each exhibited negative and non-significant effects on loan default. Specifically, the results show that a 1% increase in credit appraisal would cause loan default to decline by about 11% while a 1% increase in loan monitoring will cause loan default to decline by about 21%. The individual effects of both appraisal and loan monitoring on loan default are not significant since the p-values of the coefficient of each of the variables are greater than 0.05, this effect is significant as shown by the p-value (Sig) of the t-statistics of the coefficient of credit appraisal and implying that changes in credit appraisal and loan monitoring do not correlate with shifts in loan default.

Additionally, the coefficient of multiple determination (Adj.  $R^2$ ) is given as 0.104, and signifying that about 10% changes in loan default is traceable to changes in credit management practices. Furthermore, the F statistics value of 5.581 (p-value = 0.001) indicates that the model passes the test of joint significance, and implying that the model examining the effect of credit management practices on loan default in deposit money banks in Osun State is significant.

From the regression results therefore, this study finds that overall, there is no sufficient evidence to conclude that credit management practices have a significant effect on loan default in deposit money banks in Osun State.

## **4.2 Discussion**

The analysis of questionnaire constructs indicates that the rate of loan default in money deposit banks in Osun State is high, necessitating effective credit management policies that would greatly reduce the incidence of loan default and its effect on the performance of the banks. This finding contradicts the findings of Karekezi and Butera (2018), which discovered that the level of credit management practices was high and accompanied by high levels of credence. Despite the fact that the individual questionnaire designs for each variable show that the credit evaluation, loan monitoring, and credit collection policies of deposit money institutions are adequate, as indicated by the respondents, the empirical findings indicate otherwise.

The study revealed little evidence that credit management practices affected loan default in Osun State deposit money institutions. Credit evaluation and credit monitoring have a reduced effect on loan default, although, not significantly. Credit collection policy demonstrated a positive correlation with loan default, contrary to the expected relationship between credit management and loan default.

## **5 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Summary of Findings**

This study examined credit management's effect on loan default in Osun State Deposit Money Banks. The study evaluated asymmetric information, anticipated income, and credit risk to support the concept and empirical findings in the study. The study instrument (a well-structured questionnaire) was distributed to elicit responses to the research questions using a descriptive research design and a purposive sample technique. The compiled replies were checked for inaccuracies and computed with the use of IBM SPSS statistical software; the results were then displayed in tables and graphs. Using basic and complex regression techniques, the study hypotheses were examined. The result showed that credit management practices have an insignificant effect on loan default in Osun State.

## **5.2 Conclusion**

The study concluded that credit management practices have no significant effect on loan default. The sub-variables credit appraisal and credit monitoring have positive but non-significant effects on loan default while credit collection policy has a positive and significant effect. In other words, the incidence of loan default in the banks were not influenced by the loan management practices put in place by the banks. While the processes were in existence in the banks under investigation, they have not been able to affect the incidences of loan default.

## **5.3 Implications of the Findings**

The findings indicate that banks are at risk of failure due to the high rate of loan default, and that the rate of default loans may be underreported in Osun State banks due to the fact that the overall performance of loans is typically determined from the group accounts of banks rather than individual branches. In addition, the data indicate that when borrowers default, a substantial portion of the blame lies with the incapacity of bank management to implement proper credit management practices.

#### **5.4 Limitations**

The research made use of primary data from information collected from credit officers and managers of the banks which may be influenced by personal biases from the officers involved. Also, the purposive sampling technique was also employed. This means that the researchers' responses are selected from a pre-determined group of people. Thirdly, the study evaluated the study from the view of the deposit money banks to determine factors influencing loan default. Other perspectives such as loan characteristics and profile of loan defaulters are not considered.

#### **5.5 Suggestion for future research**

Further research can investigate and examine how well internal control can influence the credit management practices and their effect on loan defaults. Another area of further study could make use of the credit policy guides of the banks to examine the effects of the process, as stated in the policies, on loan defaults.

#### **5.4 Recommendation**

The study recommend that the credit management methods of the deposit money banks should be reviewed and strengthened to align with global trends and consumer behaviour, as well as other critical credit management concerns, particularly in the areas of credit collection, credit assessment, and credit monitoring.

#### **Consent**

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

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