European Journal of Economic and Financial Research
ISSN: 2501-9430
ISSN-L: 2501-9430
Available on-line at: http://www.oapub.org/soc

DOI: 10.46827/ejefr.v6i3.1328 Volume 6 | Issue 3 | 2022

INFLUENCE OF CREDIT REFERENCING ON LOAN PERFORMANCE IN THE KENYAN BANKING SECTOR

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Abstract:
Despite the decade-long existence of Credit Reference Bureaus in Kenya, lenders continue to grapple with a high prevalence of non-performing loans. However, available studies associate credit referencing with a reduction in bad loans among financial institutions. This is however doubtful considering the consistent rise in non-performing loans within the banking sector over the same period. It is this contrast that has motivated a follow-up study to establish an accurate empirical position. The study sought to investigate how credit referencing influences loan performance among Kenyan lenders. The study was anchored upon the Information asymmetry theory. The study adopted the descriptive survey research design and targeted 39 commercial banks and 14 registered microfinance banks operating in Kenya as of 31st December 2020. The study selected 21 commercial banks using a stratified sampling plan based on the 3 tiers as defined by the Central Bank of Kenya. It also included four microfinance banks. Structured questionnaires were used to collect primary data on the independent variable and a data collection sheet was used to collect secondary data on the dependent variable over a 10-year period. Respondents comprised the branch managers and credit officers. Both descriptive and inferential statistical analysis techniques were employed to obtain the findings of the study. The findings of the study showed that all the credit referencing parameters were negatively but insignificantly related to loan performance among Kenyan lenders. Consequently, the study recommended that the management of the banking institutions should pay close attention to the adverse credit information relating to borrowers. Further, banking institutions should operationalize a differentiated credit pricing model as a mechanism to reward borrowers with good credit history. The Central Bank of Kenya should also strengthen the banking supervision function so as to negate the growing trend in non-performing loans among the lenders by instituting appropriate sanctions.

JEL: O15; J24; L20

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Keywords: credit reference bureaus, loan performance, credit information sharing, Central Bank of Kenya, microfinance banks

1. Introduction

Lending is a challenging proposition in any setting, particularly in the developing world where judicial enforcement is weak and information about the ability and willingness to repay applicants is not readily available. In most cases, many of the potential borrowers have never before borrowed and cannot pledge collateral to guarantee repayment (Gonzalez-Vega, 2003; Conning and Udry, 2007). According to Greenidge and Grosvenor (2010), the primary task of financial institutions is to offer loans to borrowers who may either be individuals or corporate entities. Effectively, credit risk which constitutes the uncertainty associated with borrowers' repayment comprises their main source of risk.

Credit referencing refers to a financial system regulated by the government through the Central Banks that involves gathering and maintaining data on the credit history of individuals, businesses and other organizations and makes this information available to relevant users (Triki & Gajigo, 2012). This is undertaken by the Credit Reference Bureaus (CRBs), whom under reciprocity agreement with the lenders and other entities obtain, consolidate and package this information into individual reports and distribute it to lenders at a fee (CBK, 2020). In addition to credit information, the CRBs are also mandated to collect and share data on delinquency in repayment of loan accounts, bankruptcies, fraud & forgeries, cheque kiting, false declaration statements etc. (CRB Regulations, 2020).

Prior to the introduction of credit referencing in Kenya, lenders exclusively relied on the goodwill of potential borrowers to fully and willingly disclose their credit history at the loan application stage. This mechanism however proved biased against lenders as borrowers often double-dealt between multiple lenders (Ndungo, 2018). In extreme circumstances, borrowers even defaulted on loans obtained from multiple branches of the same lender without being detected. This gave rise to high loan default rates with a resultant exponential rise in the proverbial loan accounts "deadbeats" which adversely affected lenders (Omare, 2016). This unwanted phenomenon necessitated a policy intervention to cushion the lenders against capital hemorrhage and ensure sustained economic growth (CBK, 2014).

According to KBA (2013), credit referencing was operationalized in Kenya on 2nd February 2009 through an amendment to the Banking Act CAP 488 and promulgation of the Banking (CRB) Regulations of 2008. The legal framework provided for registration and licensing of CRBs as well as mandatory sharing of credit information on all non-performing loans (NPLs). It also provided for voluntary sharing of information on performing loans. Subsequently, the Banking (CRB) Regulations of 2013 and 2020 have since been issued to bring the Microfinance Banks (MFBs) and the Savings credit cooperative societies (SACCOs) respectively under the purview of credit referencing. Presently, there are 3 CRBs licensed to operate within Kenya namely: Credit Info, Metropol and Transunion Kenya.

Over the years, credit referencing has proven to be a critical ingredient within the financial system in both developed and developing economies. By bridging the information gap between lenders and borrowers, it has been instrumental in guaranteeing stability within the financial sector (Ndun'gu, 2018). Unlike in the past when disclosure of credit information of the borrowers was limited, Mukuna (2014) noted that this information is readily available to the lenders; which creates a level-playing field for all parties in the credit market. Consequently, lenders are able to make an accurate assessment concerning the suitability (or lack of it) of specific potential borrowers; which contributes to lower chances of disbursing a bad loan.

Credit reference reports are also useful in stemming malpractices in the banking sector as customers with negative credit ratings are usually subjected to stringent lending terms and conditions (Shisia, Marangu & Omwario, 2014). Effectively, this help banks suppress the levels of NPLs while increasing their loan books. To the borrowers, credit information sharing is instrumental in minimizing the problem of information asymmetry which is the main contributor to the high cost of credit in the financial sector. Ngele (2016) argued that in absence of credit information sharing, banks tend to load a risk premium to borrowers, which in turn, increases the cost of borrowing. This translates to a high level of default. The author opined that the credit information sharing mechanism, therefore, facilitates the development of information capital to increase information symmetry and allow the cost of credit to decline substantially.

Further, Maina (2015) noted that credit referencing has created efficiency in financial intermediation. He posited that CRBs collect, manage and disseminate customer information to lenders in the form of credit reports; which are essential in helping lenders to make faster and more accurate credit decisions. This timely feedback helps lenders to decide whether to extend an applicant a loan, credit card, overdraft facility or extend any other product, which is dependent on the customer's ability to repay at a determined cost.

Credit referencing has also been associated with increased private sector lending. In absence of credit information, banks have often preferred to extend credit to the public sector directly to the government through investment in commercial papers in an effort to mitigate credit risk. The effect has therefore been "crowding out" the private sector from the credit market. However, with credit information sharing rolled out, the private sector has witnessed significant growth in lending since lending institutions can readily access information on their credit worthiness (Otwori, 2013).

To the borrowers, credit referencing provides the banks with a credible tool for assessing the risk exposure. This, therefore, offers a mechanism to offer differentiated terms of borrowing to customers depending on their risk profiles. To the lower-risk borrowers, preferential terms of repayment such as lower interest rates could be extended in contrast to higher-risk borrowers (Riungu, 2014). Further, Velmurugan (2014) noted that credit referencing is a significant contributor to prudent credit management among borrowers. This is because credit reports provided by CRBs contain a listing of all the loan facilities in the name of specific borrowers, whether current or previous. This forms

a key ingredient that helps lenders in determining the amount to be disbursed to the borrowers; which essentially reduces the chances of over-indebtedness to the borrowers.

Concerning the benefits of credit referencing to the lenders, Kwambai & Wandera (2013) pointed out that it offers an improved underwriting tool for financial institutions. Besides, it is a critical mechanism for managing credit portfolios in the banking sector and a key strategy for the management of credit risks. According to Ndungo, Tobias & Florence (2017), credit referencing has also contributed immensely to reducing the level of NPLs among the financial institution.

1.1 Statement of the Problem

Credit referencing is undoubtedly a critical ingredient in assessing the risk profiles of potential borrowers within the financial sector of an economy. Besides providing a mechanism for bridging the information gap existing between lenders and borrowers, it offers a system for evaluating the creditworthiness of potential borrowers which is a crucial input in minimizing instances of NPLs. This position has been supported by available scholarly studies locally and globally most of which have postulated that credit referencing results in higher rates of loan repayment. However, a review of the CBK annual banking supervision reports has shown that despite the decade-long existence of CRBs in Kenya, the banking sector continues to grapple with the NPLs menace. This empirical evidence seems to be at variance with the findings from the available scholarly studies carried out over the even period. It is against this background that this follow-up study is carried out to establish the accurate position.

1.2 Research Objectives

The primary objective of the study was to investigate the influence of credit referencing on loan performance in the Kenyan banking sector. The study was guided by the following specific objectives:

1) To establish the influence of quality of the credit information sharing on loan performance in the Kenyan banking sector
2) To determine the influence of the frequency of credit information sharing on loan performance in the Kenyan banking sector
3) To evaluate the influence of the policy framework on credit information sharing on loan performance in the Kenyan banking sector

1.3 Significance of the Study

Besides contributing to the existing body of scholarly knowledge, the findings from the study are useful in helping the management of banking sector institutions to improve their credit management controls and strategies so as to stem cases of bad loans. Further, the recommendations derived from the study would be crucial in guiding policy formulation by the CBK concerning the quality of credit information shared and strengthening supervisory mechanisms in the sector so as to reduce instances of capital hemorrhage.

2. Literature Review

This section provides a review of both the theoretical and empirical literature relevant to the study. It also provides the conceptual framework showing how the variables of the study are interrelated.

2.1 Theoretical Literature

The study was anchored on the Information Asymmetry Theory as propounded by Akerlof his 1970 paper entitled "The Market for Lemons". By using the secondhand car market, the author argued that the seller who ordinarily has superior market information may take advantage of the ignorance of the buyers to sell goods of less than average market quality. Equally, the buyers may be demotivated to buy more car units at the quoted price for fear of being scammed by the sellers concerning the quality of the available cars. In the long run, the author argued that this could greatly impact the market and lead to market failure. In their 2001 article, Stiglitz, Akerlof, and Spence further developed this theory by demonstrating how the financial sector in developing countries could be skewed when financial service providers, armed with superior professional knowledge, experience and networks exploited retail market participants who were not nearly as informed or connected.

Within the financial markets, pundits have argued that information asymmetry has given rise to adverse selection. This refers to a business relationship where the sellers, in an effort to safeguard themselves from exploitation by the buyers may overprice their products and inevitably prevent credible buyers from accessing the markets. In the credit markets, adverse selection arises when there is hidden information about the borrower leading to inefficient allocation of credit by the credit providers. This imbalance of information in transactions sometimes causes credit transactions to go awry and causes defaults and bad debts. Credit reference bureaus are therefore essential for sharing credit information to mitigate defaults.

Information asymmetry has also been attributed to the occurrence of moral hazard. This occurs when a company or individual takes on the increased risk because it does not personally bear the full consequences of that high risk. In the context of the study, moral hazard arises when the lender is unable to observe the borrower`s actions that affect the probability of repayment. This happens when the borrower provides misleading information to convince the lender to grant a loan. Information sharing can help both lenders and borrowers perform because lenders no longer fear being held up by the lender monopolist while borrowers do not want to default because this will be publicly known.

2.2 Empirical Literature

Ndungo (2018) studied the effect of credit reference bureaus functions on the financial performance of Savings and Credit Cooperative Societies (SACCOs) in Kenya. The study evaluated the effects of credit cost, information sharing, moral hazard and risk assessment functions on the profitability of SACCOs. The study found that credit

referencing was positively and significantly related to the financial performance of the SACCOs in Kenya. The study, therefore, concluded that credit information sharing contributed significantly to the reduction of bad loans among the SACCOs; which boosted their earnings. The findings of this study were inconsonance with those of a study by Mutua (2014) which investigated the influence of credit information sharing on loan performance among Kenyan middle-level banks.

Omare (2016) conducted a study that sought to investigate the effect of credit reference bureau services on non-performing loan portfolios among the deposit-taking microfinance institutions in Kenya. The study considered the loan quality, loan recoveries and loan write-offs as the main constructs of the credit reference bureau services and operationalized NPLs through the NPL to gross loan ratio. The study which considered 12 registered deposit-taking MFI found credit referencing services to be negatively and significantly related to NPL ratios. The implication of the findings was that CRB services contributed immensely towards alleviating the NPL menace among the studied units. The findings of this study agreed with those of studies carried out by Murimi (2017), Okiya (2016) and Wairimu (2013) all of which averred that credit referencing is negatively and significantly related to NPL levels in the Kenyan Banking sector institutions.

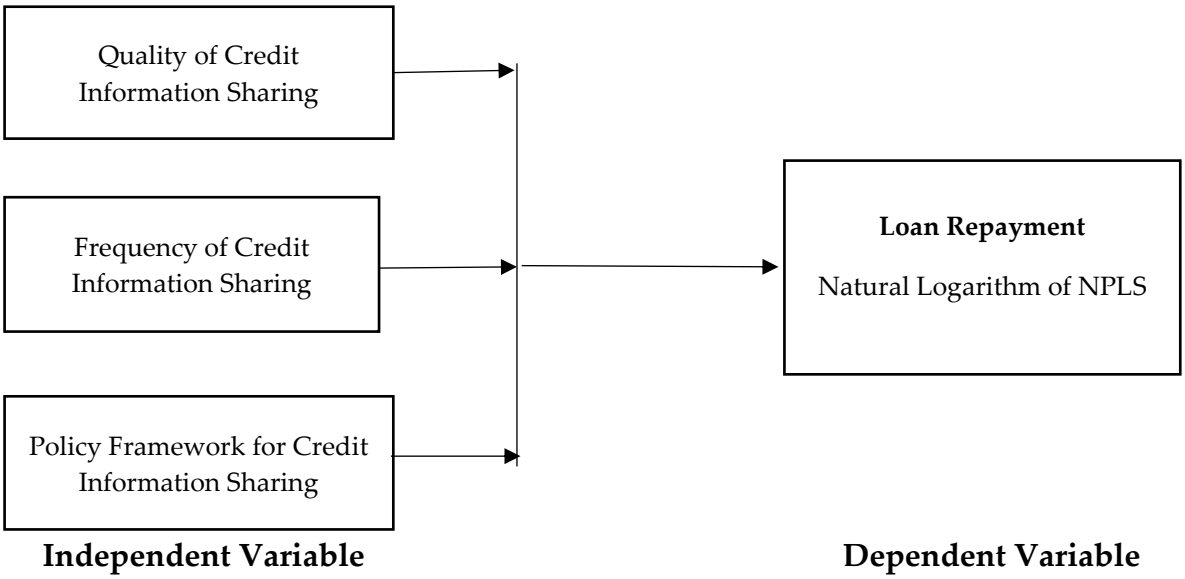
In another study, Eric (2012) evaluated the relevance of credit reference bureau and its effect on the financial industry in Ghana. The study which adopted a quantitative research design and sampled 1000 respondents from the financial sector found CRBs to be of no relevance in alleviating the NPLs menace within the Ghanaian financial industry. The study, therefore, concluded that credit referencing had no effect on loan performance among the financial firms in Ghana. The findings of this study were in agreement with those of a similar study carried out by Rajan and Dhal (2013) that found credit listing to have no effect on loan performance among Indian commercial banks.

Credit referencing is not an old concept within the African financial systems. As evidenced by the reviewed empirical literature, there is a contradiction in the study findings carried out in separate jurisdictions. Particularly, all the studies carried out in Kenya have concluded that CRBs have positively contributed to the reduction of NPLs. This is however disapproved by the regulatory reports from CBK. This hence provides a research gap that must be filled.

2.3 Conceptualization

The study was conceptualized as shown in the figure below:

Figure 1: Conceptual framework



3. Research Methodology

3.1 Research Design

In carrying out the study, the causal research design was adopted. This research design was considered appropriate as it involved collecting cross-sectional data representing the opinions of the sampled respondents on the independent variable which was analyzed against the 10-year time-series data collected on the dependent variable. Since the study collected and analyzed data in the same status as it was, a positivist research approach was adopted.

3.2 Study Population

The study population comprised 39 fully fledged banks and 14 microfinance banks licensed to operate in Kenya as of 31st December 2020. These entities were principally involved in providing credit services to the borrowers in form of loans. They were also the primary consumers of credit referencing information from the CRBs.

3.3 Sampling and Sample

The study randomly selected 21 commercial banks using the stratified sampling plan based on the 3 existing tiers as defined by the CBK as follows: Tier 1 = 5 banks, Tier 2 = 5 banks and Tier 3 = 11 banks. Further, 4 out of the 14 licensed MFBs were randomly sampled by the study. The key respondents comprised Branch managers or Credit Officers who were presumed to have superior information concerning the credit performance of the borrowers.

3.4 Research Data

The study collected primary data on the independent variable using structured questionnaires which were administered using either face-to-face or electronic means

(emails). The data comprised opinions by the respondents on specific statements which were designed based on an ordinal Likert-type scale. Further, the study collected secondary data on the dependent variable. This information was obtained from the annual banking supervision reports as published by CBK over a 10-year period (2011 – 2020). The period of the data collection was considered long enough to allow for the determination of the trend exhibited by the dependent variable.

3.5 Data Analysis & Model Estimation

Both descriptive and inferential statistics were used to analyze the data. Descriptive statistical analysis using mean and standard deviation was performed to provide a preliminary overview of the studied entities with regard to the parameters of interest. Inferential statistical analysis involved estimating the specified regression model using the F and t-tests to determine the significance of the overall model and that of specific estimators. This was done at a 95% confidence level. The following multiple regression model was estimated by the study:

$$Y_{it} = \beta_0 + \beta_1 L_1 + \beta_2 L_2 + \beta_3 L_3 + \mu_i \quad \ldots\ldots (1)$$

Where:
Y_{it}= Loan performance
β_0 = Constant term
$L_1 – L_3$ = The 3 explanatory variables of the study
μ_i = Random error term
$\beta_1 \ldots \beta_3$ = Coefficients of the independent variables.
i = Number of studied entities

4. Results and Discussions

4.1 Response Rate

The study administered 25 questionnaires, with one questionnaire issued to each respondent in the selected banking institutions. All the questionnaires administered were successfully responded to and therefore the study reported a response rate of 100%. This was considered to be a very good response rate for the study.

4.2 Descriptive Statistical Analysis

Descriptive statistics are useful in describing the basic features of the data and to simplify large amounts of data in a clear and understandable way. The ordinal data collected by the study was transformed into frequency distribution and the mean and standard deviations of the responses were derived. This enabled determination of the level of agreement or lack of it on the statements leveled by the researcher to the respondents.

Table 1: Summary Statistics

Variable	Item	Mean	Std. Dev
Independent	Quality of Credit information disclosure (L1)	2.235	0.243
	Frequency of credit information sharing (L2)	2.052	0.321
	Policy framework for credit information sharing (L3)	1.831	0.164
Dependent	Natural Log. of NPLs stocks (billions)	6.476	0.436

The questionnaires were based on a 5-level Likert-scale ranging from 1-5 with 1 representing strong agreement and 5 representing strong disagreement. From the above analysis, it can be concluded that the respondents largely agreed that the quality of credit information sharing between CRBs and lenders is sufficient (with a mean agreement level of 2.235 and a standard deviation of 0.243). It can also be deduced that the frequency at which the credit information is updated and availed to the users is acceptable (mean agreement of 2.052 and std. dev. of 0.321). Finally, it can be averred that the existing policy framework facilitating sharing of credit information is adequate (mean agreement of 1.831 and std. dev. of 0.164). Concerning the stocks of NPLs held by the banking institutions, it can be observed that the level is menacingly high with a natural log of 6.476 which loosely translates to approximately Kenya shillings 100 billion.

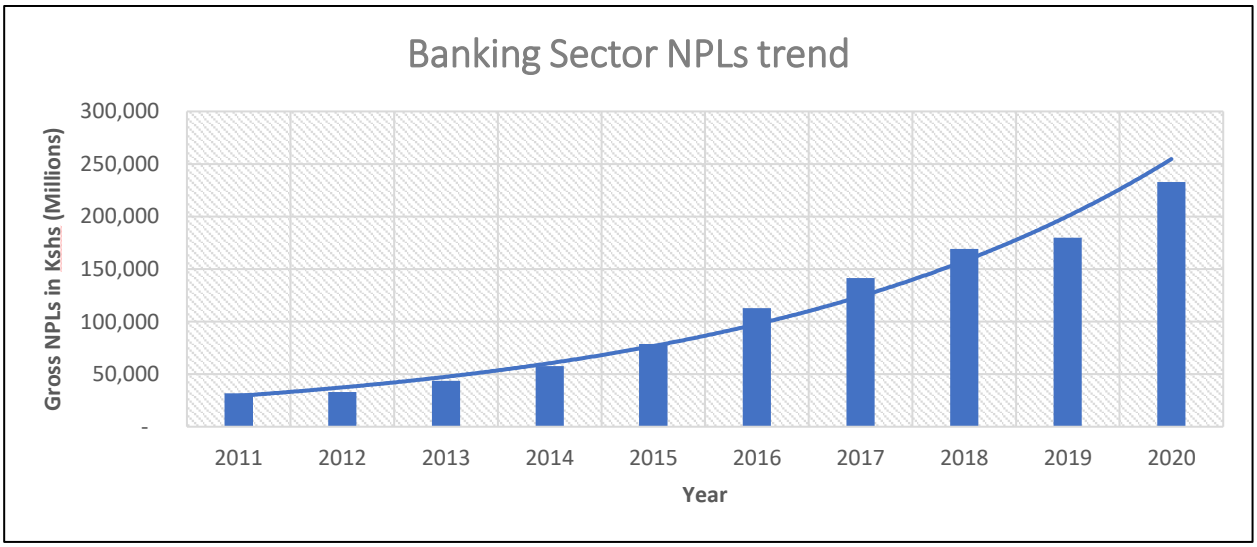


Figure 2: 10-year trend analysis for the NPLs in the Kenyan banking sector

The figure above represents the trend of NPLs exhibited by the studied institutions over the 10 years period. It can be deduced that the NPLs stock held by the sampled institutions was significantly high at an average of approximately Kshs 100 billion (1% of the GDP). It is also observable that the NPLs stocks have been growing over the past decade.

4.3 Correlation Analysis

Table 2: Pearson correlation analysis results

		NPLs	Quality (L1)	Frequency (L2)	Policy (L3)
NPLs	Pearson Corr.	1	-0.523	-0.483	-0.697
	Sig. (2-tailed)		0.031*	0.022*	0.013*
	N	25	25	25	25
*Correlation is significant at the 0.05 level (2-tailed)					

From the results laid out in Table 2, the Pearson correlation coefficients show a negative and significant relationship between the studied variables. The implication is that all the credit referencing parameters operationalized by the study are inversely related to growth in NPLs in Kenya i.e., their increase would result in a decrease in NPL stocks within the banking sector.

4.4 Multiple Linear Regression Analysis

Table 3: Regression analysis results

Dependent variable: Ln NPLs				
Variable	**Coefficient**	**Std. Errors**	**t-statistic**	**Prob.**
Constant	3.581*	1.39	2.561	0.0000
Quality (L1)	-0.751	0.135	-5.563	0.174
Frequency (L2)	-1.020	0.414	-2.464	0.319
Policy (L3)	-0.597	0.228	-2.618	0.221
Statistics				
R-Squared	0.3753			
Rho	0.3119			
Wald-statistic (3)	190.20			
Prob. (Wald-statistic)	0.0000			
*Signifies the coefficient is significant at the 0.05 level				

The results displayed in Table 3 indicate that the studied explanatory variables jointly explained 38% of variance in NPLs within the banking sector. Further, the Wald Statistic of 190.20 with a probability of 0.0000 evidences that the overall model was significant at 95% level. The results show that all the 3 explanatory variables are negatively related to NPLs levels. The relationships are however statistically insignificant at both 5% and 10% levels. The finding implied that during the period of the study, variations in the identified credit referencing parameters were not significantly associated with changes in NPL stocks held by the Kenyan banking sector. Where such changes were present, they were inverse.

This finding was in consonance with those by Eric (2012) and Rajan and Dhal (2013) whose studies found CRBs to be of no relevance in alleviating the NPLs menace within the Ghanaian financial industry and India respectively. The finding was nonetheless at variance with those provided by past studies such as Murimi (2017), Okiya

(2016) and Wairimu (2013) all of which posited that credit referencing is negatively and significantly related to NPL levels in the Kenyan banking institutions.

4.5 Qualitative Data Analysis Results

A review of qualitative responses from the study revealed that the high loan book targets by the bank management create undue pressure among the staff in the Credit departments. This inevitably motivates the bank staff to overlook adverse credit information provided on potential borrowers in pursuit of meeting the performance objectives. Further, the respondents indicated that the cut-throat industry competition is a motivator for rival banks to "poach" high-value borrowers by buying off their outstanding loans. To avert such incidences, banks deliberately delay updating details of such borrowers with the CRBs.

5. Conclusions and Recommendations

Based on the findings discussed above, the study concluded that the credit referencing mechanism has a negative relationship with the NPL levels among the banking institutions in Kenya. However, that relationship is not significant. Following this conclusion, the study recommended that the management of the banking institutions should not downplay adverse credit information relating to borrowers. Further, the banks should operationalize a differentiated credit pricing model so as to reward borrowers with good credit history. Either, the CBK ought to strengthen supervision (M&E) on NPLs trends among the lenders and institute appropriate sanctions.

Conflict of Interest Statement

The authors declare no conflicts of interest.

About the Author

The authors are members of Faculty in Kirinyaga University's School of Business and Education, Kenya. Their research interest includes financial distress, capital structure, taxation and risk management.

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