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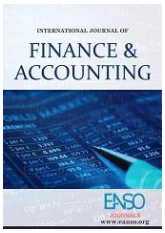

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Original Article

Risk Assessment and Non-Performance of Loans in Commercial Banks in Kenya

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ABSTRACT

Kenya's major financial institutions, commercial banks, are significantly dependent on the country's financial intermediation system. However, the problem of defaulted loans, which has been brought on by poor credit management, has affected commercial banks in Kenya, reducing their capacity to lend and preventing the continual movement of money in and out, requiring a bank to keep engaging in a strong credit market. Therefore, the study aimed to examine the effects of risk assessment and non-performance of loans by commercial banks in Kenya. The capital asset pricing model and information asymmetry theories served as the research foundation. The study employs a descriptive and explanatory design approach, with a census used to determine the target population of 152 loan officers of 38 commercial banks. A data collection timetable served as a guide for the sourcing of both primary data, which was obtained through the use of structured questionnaires. The study used correlation and regression to show the relationship between the variables. Descriptive statistics, such as measures of central trends, tables, and charts, were used to depict the results. There were diagnostic tests for heteroskedasticity, multicollinearity and autocorrelation. The research adhered strictly to all ethical norms. Findings unveiled that risk assessment inversely and significantly affects non-performing loans. The study recommends that policymakers consider implementing a comprehensive regulatory framework that emphasises the importance of robust risk assessment practices. This framework could include mandatory guidelines for banks to adopt standardised risk assessment methodologies that incorporate both quantitative and qualitative analyses. Commercial banks should prioritise the integration of advanced data analytics and technology into their risk assessment processes.

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INTRODUCTION

Institutions that deal with finance perform a variety of vital functions in the economic progress of nations by directing financial resources, shifting expenditures terms from excess to deficit, while encouraging investment as well as efficiency (Nyabaga & Matanda, 2020). Credit is crucial to the intermediation function that banks provide globally (Hassan, 2019). The banks mobilise lending resources for the economy's underperforming sectors. Unluckily, the majority of loan facilities offered to customers and other economic participants end up in NPLs due to default. These loans may result in bad debts if not repaid, which would be extremely detrimental to banks' performances (Khan, Asima & Zahid, 2020). In the USA, for instance, due to problematic lending obligations and the economic slump, the NPLs ratio of commercial banks in the United States rose from 1.1% in 2021 to 1.2% in June of 2023 (Federal Reserve Board, 2023). According to the World Bank (2021), the average amount of NPLs of commercial banks in the United Kingdom climbed from 0.97% to 1.96%. In Indonesia, the banking sector's NPLs increased by 3% to 5% between 2014 and 2016, which had an impact on how they distributed credit. This rise in non-performing loans also had an impact on Indonesia's profitability and its ability to carry out specific financial functions (Yulianti & Ibrahim, 2019). Data from the State Bank of Pakistan shows that the ratio of NPLs at commercial banks is growing quickly over time. NPLs' ratio in 2019 was 6.7% and 14.3% in 2020; it is now rising (Fofack, 2021). According to Ahmad and Ariff (2021), the majority of commercial banks as well as economies in Thailand, Mexico, Indonesia, Japan and Malaysia encountered high NPLs and a substantial rise in credit risks during monetary and economic crises. This resulted in the liquidation of several banks throughout Indonesia and Thailand.

In Africa, the majority of assets and operations in the financial industry are accounted for by banking systems. Any financial collapse for a nation whose commercial banks dominate the financial sector has negative impacts on the nation's economic development (Adusei, 2021). Commercial institutions are essential to the brokering of financial markets by acting as go-betweens in transactions involving the transfer of money from financiers, who have excess capital, to borrowers, who have inadequate funds (Abraham & Anifowose, 2020). According to Okoye and Agwu (2019), Nigeria's commercial banks are impacted by non-performing loans. However, because of their loan services, they are more vulnerable to credit risk from NPLs. According to the Central Bank of Nigeria (2020), significant loan loss provision is a result of a high number of NPLs. Nathan, Ibrahim and Tom (2020) also observed that despite industry changes, NPLs within the commercial financial services industry in Uganda have shown an upward pattern over the last ten years. In addition to impeding credit expansion, the ongoing rise in non-performing loans has caused the failure and closure of several commercial financial institutions.

Difficulties linked to stability over the years have been experienced by Kenya's banking sector (CBK, 2019). According to Ngungu and Abdul (2020), the largest risks encountered by financial institutions

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(commercial banks) are credit risks, which are reflected by delinquent loans (also known as NPLs). Therefore, it continues to be a major priority for all commercial banks to reduce and sustain their levels of NPLs at reduced levels (Rono, 2020). This is because there are a lot of non-performing loans which have negative impacts on commercial banks' profitability and, ultimately, stability. The ratio of non-performing loans compared to total loans indicates that financial institutions' portfolio composition is sound. Due to the prevalence of past-due loans, credit risks constitute the biggest challenge faced by financial institutions in Kenya (Ngungu & Abdul, 2020). A commercial bank's profitability is based on the proportion of Non-Accrual Loan Facilities compared to all of the institution's liabilities. Hence, commercial banks' high proportion of NPLs has constrained their capacity to make additional private investments and boost their expansion (Namutenda & Muturi, 2021).

Risk assessment involves procedures of finding, examining, and analysing risks to determine their probability and possible consequences (Culot, 2021). The main goals of risk assessment are to pinpoint possible dangers and to provide data that can be utilised to make judgments about how to handle such risks (Raptis, 2019). Techniques for qualitative assessment that rely on a personal analysis and interpretation of hazards are frequently used in risk assessment processes. However, the outcomes of using these techniques might be a little arbitrary. Comparatively, quantitative methods use specific risk indicators and produce results that are more objective and logical given the available data and statistics (Dotsenko, 2019). To confirm that their risk handling adheres to their institutional aims, financial institutions should assess and frequently monitor their credit risks (Lowry, 2019). It was measured in terms of risk evaluation, estimation, reduction and loan classification.

Problem Statement

In Kenya, the financial services industry is growing more quickly than the overall economy. Even though it has experienced rapid growth in comparison to Kenya's commercial institutions, it is still inadequate in relation to the number of its clients (Rono, 2020). Inadequate credit distribution increases expenses for profitable borrowers, exhausts the fund, and restricts banks' capacity to reallocate money to other purposes. Furthermore, the risk associated with credit rises as its amount does. The problem of loan default, which results from inadequate credit management, reduces a bank's ability to make loans. Furthermore, it hinders future applicants from getting credit because the bank's expanding default problem is closely correlated with its cash flow management problems. It thereby obstructs the regular inflow and outflow of funds, requiring a bank to keep taking part in a robust loan market. A study on loan default and performance in Nairobi County, Kenya's Dagoretti South Constituency, found that 14 circulating funds have been put at risk by the loans' 46% payback rate (Aberi, 2019). The median default rate of banking establishments is 8.4%, according to CBK's yearly regulatory report for the year 2018. This suggests that banking institutions have exposures to credit risk that are 5 times greater than those of other market participants. According to the periodic report as of May 31, 2019, Kenya has a 20% global default rate for funds.

A few commercial banks have reported profits, but overall, the credit risk in the banking industry has been very high. As a result, a number of well-known banks, including Trust, Union, Dubai, and Euro banks, failed, and others, like Chase and Imperial banks, entered receivership (CBK, 2019). The placement of M Bank in receivership as of August 2018 indicates volatility in Kenya's banking sector (Government of Kenya (GOK), 2019). Stakeholders in Kenya are becoming increasingly concerned about the growth rate of non-performing loans (Ngungu & Abdul, 2020). As NPL levels in Kenya have exceeded the advised rate of 1%, credit risk has become a major worry. According to CBK (2020), the proportion of NPLs to all loans rose from 11.38% to 14.92% in 2019. From 4.59% in 2015 to

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5.05%, 5.46%, 5.99%, and 7.82% in 2016, 2017, 2018, and 2019, the percentage of non-performing loans (NPLs) to total gross loans increased. Despite the deployment of credit risk processes, banks continue to report considerable amounts of nonperforming assets on their accounts receivable, despite decreasing lending risks (World Bank, 2019).

A recent credit survey report in Kenya has unequivocally demonstrated that the level of non-performing loans has exhibited an increasing trend over the years. For instance, the NPL ratio escalated from 7.82 in 2019 to 12.5 by September 2022, signifying a significant increase. Also, the return on equity declined from 30.7% in 2011 to 22% in 2022, and a downward trend in return on assets, decreasing from 4.7% to 3.79% over the 2012-2022 period (Nyakundi, 2023). Credit risk with gross NPLs to gross loans ratio of commercial banks in Kenya increased from 13.3% in 2022 to 14.0% in 2023 at the end of the first quarter (CBK, 2023). Commercial banks had a notable 30% increase in non-performing loans (NPLs) during the fiscal years 2022/2023 and 2023/2024. Among other things, the National Bank of Kenya and other banks have been forced to enter into buyout agreements with organisations like Access Bank from Nigeria due to the ongoing increase in the amount and rate of NPLS (CBK, 2024). A number of banks, notably Chase Bank and Imperial Bank, have failed as a result of the ongoing increase in non-performing loans (NPLs); other banks, including Dubai Islamic Bank, have remained in receivership (Odanga, Ndegwa & Okello, 2024). Financial institutions predominantly encounter non-performing loan (NPL) risk due to the provision of extended loan tenures, which renders them more vulnerable compared to those offering shorter tenures. If credit risk is not carefully assessed, non-performing loans and advances could result in significant losses (Githama & Gachanja, 2020).

The significance of risk assessment influence on non-performance of loans is undebatable, leading to many empirical studies on the subject matter. The literature review revealed various research gaps that present some unresolved issues. Even though various studies have been conducted on risk assessment in Kenya, there remain knowledge gaps, conceptual gaps, contextual gaps, geographical gaps and methodological gaps that require additional investigations.

Nyakundi (2023) investigated the impacts of NPLs on KCB Group's financial performances and the prevalence of credit risk management methods on NPLs at KCB Group. Research utilised only descriptive statistics. Judgmental sampling, which aims to get examples of components based on the researcher's judgment, was employed. The study found that NPLs increase the adjustment of interest rates upward, which results in credit denial, by shorter loan repayment terms. This represents a methodological gap.

Impacts of credit risk management on non-performing bank loans in Nigeria were examined by Abubakar (2021). Findings showed that loan advances and returns on assets have positive and significant associations, but loan loss provision, NPLs, and ROA have negative and significant links. The study was done in Nigeria and used only secondary data. The impact of credit risk assessments on the financial results of commercial banks in Balkan nations was studied by Arifat and Baruti (2023). The generated correlation matrix reveals a tenuous connection between risk assessment and performance. The study was done in Balkan nations. All this presents a knowledge gap and contextual gaps, which this study intended to fill.

Objectives of the Study

The following objectives were used in the study.

- To establish the effect of risk Assessment on the non-performance of loans of Kenyan commercial banks.

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Research Hypotheses

The following research hypotheses were used in the study

H_{01}: Risk Assessment has no statistically significant influence on the non-performance of Loans of Kenyan commercial banks.

Study's Significance

Commercial banks' management teams would benefit from the study's findings, and the financial institutions would gain from the data it provides. The information would be helpful to bank managements in understanding how rules impact organisational operations and, consequently, how to recognise the areas that are performing effectively or poorly and then take appropriate action. The findings would further the understanding of credit risks and NPLs of Kenyan commercial banks.

This research is vital for the Kenyan government in allocating credit to low-risk industries, which would encourage the financial sector's expansion. Due to the availability of loan shocks, the impact of high nonperforming loan levels on banks would be lessened. The results of this study's interest policy recommendations would help Kenya's government by lowering the rate at which banks are exposed to credit risks.

The study's findings would be important to credit risk assessment stakeholders and policymakers. Identifying the source and effect on investment and the economy as a whole would enable a reevaluation of credit risk. Commercial banks would be able to increase their capacity for capital production as a result of this reduction in the rate of nonperforming loans. The success of the implemented policies would lure investors into the industry, raising the standard of living for Kenya's citizens.

Academicians who want to learn more about credit risks and NPLs can benefit from this study. Additionally, this study's material would be helpful to other researchers who want to advance our understanding of the subject.

THEORETICAL REVIEW

Capital Asset Pricing Model

Sharpe released the Capital Asset Pricing Model (CAPM) in 1964. Complementary work was also made by Lintner (1965) and Treynor (1961). Markowitz's portfolio model was expanded upon with the introduction of the ideas of systematic and particular risk. For their work on the CAPM, Sharpe, Markowitz and Miller (1961) received the 1990 Nobel Prize in Economics. According to the hypothesis, all investors would own market portfolios and leverage or deleverage them with investments in risk-free assets to attain the appropriate risk level. Risk in an asset is divided into methodical or systematic and particular risk by CAPM.

The risk that is associated with keeping an inventory of markets is usually regarded as systematic risk. Market swings have some degree of impact on each particular asset. Any asset that participates in these significant market fluctuations is vulnerable to this type of risk. On the other hand, specific risk is the type that is unique to a single portfolio. According to Lintner (1965), it refers to the ROA that isn't affected by general market swings. Regardless of varied financial holdings, there would always be some risk involved. As investors, we are entitled to a rate of return that makes up for the risk we took. The CAPM assists us in estimating investment risk and expected returns on our investments. Here, we examine the model's mathematical foundation, supporting and refuting data, and implications for the typical investor (Sharpe, 1964).

The model categorises asset return risk into two sections, which is its primary contribution. Unsystematic, or company-specific, risk is the first kind. This type of risk should have zero long-term average returns. The overall unpredictability in the economy is the cause of the second type of risk, known as systemic risk (Markowitz, 1952). Since the CAPM appeared to suggest that expert management of investments was primarily a waste

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of time, the investing community initially viewed the new model with mistrust. Investment experts didn't start considering the CAPM as a crucial instrument for assisting investors in understanding risk for nearly ten years (Makori, 2018). The model's distinguishing feature is the way. It splits the risk that influences ROA into two categories. Unsystematic risk or company-specific risk is the name given to the first category of risk. For this kind of exposure, the average long-term reward ought to equal nil. Macroeconomic uncertainty constitutes the second risk category, reflecting the impact of aggregate economic factors on asset returns and is referred to as systematic risk. Unsystematic risk is generally present because every organisation is gifted with a distinctive collection of resources, concepts, and employees whose overall output may fluctuate. The theory is relevant in explaining the link between risk assessment and non-performance of loans.

Information Asymmetry Theory

In 1974, George Akerlof introduced the concept of information asymmetry. An information imbalance occurs in debt markets in general. A borrower who takes a loan is more informed about potential dangers and rewards connected to the investment projects for which the financial resources are intended. According to Edward and Turnbull (2004), observed information asymmetry causes ethical risk and negative selection, which are two issues for financial institutions. As a result, the lender does not have enough knowledge about the borrower. Since it is not cost-effective to allocate resources to monitoring and appraisal when the loan is for modest sums, commercial banks struggle to find solutions to these issues. The reason for this is that banking institutions cannot easily access the data they need to assess applicants and monitor borrowers when they need it.

As a result, commercial banks encounter an information asymmetry when evaluating a loan (Binks & Ennew, 2004). Derban, Binner and Mullineux's (2005) advice states that financial organisations in particular ought to conduct credit evaluations as part of the candidate screening process. According to the asymmetric information theory, conducting an effective screening requires acquiring accurate data from prospective lenders. Methods that are quantitative as well as qualitative can be utilised to assess the borrowers, although employing qualitative models presents some significant challenges due to their subjectivity. Derban *et al*. (2005) claim, however, that qualitative models can be used to evaluate borrowers' qualities and assign numbers based on the total of the values in comparison to a criterion. This method cuts down on subjective evaluations and potential biases while minimising processing expenses.

If the rating systems are crucial in demonstrating variations in the predicted severity of credit loan loss. According to Brown's (2008) analysis, the use of quantitative indicators enables numerical assessment of variables that play a role in clarifying default risk, evaluation of corresponding levels of relevance of factors, improvement of default risk costs, eliminating ineligible clients, and calculation of the amount of reserve required to counter anticipated financial losses in the future. The concept is relevant given that lenders might be in an improved position to make knowledgeable credit decisions if borrowers could provide correct details regarding their financial state to lenders at the point of credit request, minimising the risk of default. Therefore, it is suitable for this study to explain the link between risk assessment and non-performance of loans. Decreased credit risk leads to decreased non-performing loan levels, which improves the quality of commercial banks' portfolios.

EMPIRICAL REVIEW

Risk Assessment and Non-Performing Loans

Nyasaka (2018) investigated the impacts of NPLs on KCB Group’s financial performances and the prevalence of credit risk management methods on NPLs at KCB Group. The research method utilised was descriptive. Questionnaires were utilised in

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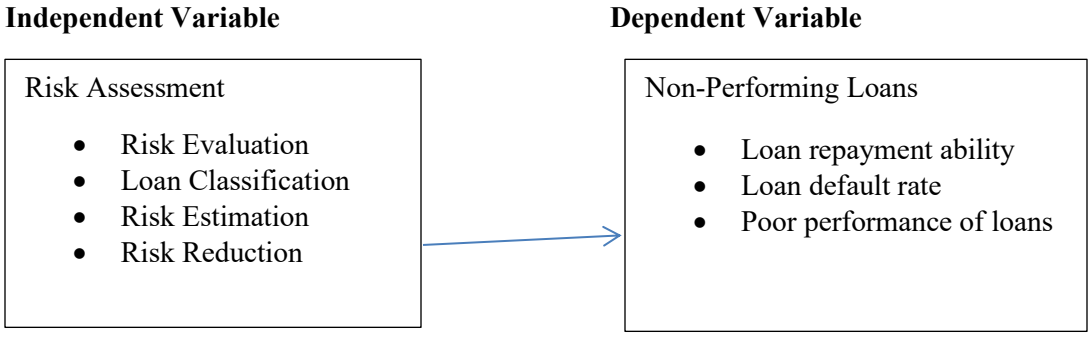
collecting pertinent data from respondents, concentrating on 100 credit managers in the Kenyan headquarters and branches of KCB. Judgmental sampling, which aims to get examples of components based on the researcher's judgment, was employed in conjunction with non-probability sampling techniques. Information gathered underwent data analysis using SPSS to provide inferential statistics. The study found that NPLs increase the adjustment of interest rates upward, which results in credit denial, by shorter loan repayment terms. The study in question used a judgmental sampling technique and primary data, whereas the recent study utilised census sampling and both primary and secondary data.

Impacts of credit risk management on non-performing bank loans in Nigeria were examined by Abubakar (2021). Information utilised originated from yearly reports of UBA, ACCESS Bank, ZENITH, ECO Bank, and GTB between 2009 and 2018. Simple analysis of regression was employed to examine data collected via electronic views. The study employed bank statements of accounts as a secondary means of data collection. Findings showed that loan advances and returns on assets have positive and significant associations, but loan loss provision, NPLs, and ROA have negative and significant links. Nigeria was the location of the aforementioned study and secondary data were utilised to obtain information. Thus, the present study, which was implemented in Kenya, made use of secondary as well as primary data.

The impact of credit risk assessments on the financial results of commercial banks in Balkan nations was studied by Arifat and Baruti (2023). This study utilised Western Balkan countries' banking systems between 2010 and 2020, and collected data from 26 credit institutions. Central banks of Balkan Republic's constituent nations were trustworthy sources of macroeconomic data, and numerous reviews of European Bank reports aided in comparison and analysis of banks' respective reports to produce secondary data. Information and results of their analysis were given in total loans (TL) and euros. In the study, two different panel regression models were used to derive the profitability indicators ROA and ROE. The generated correlation matrix reveals a tenuous connection between risk assessment and performance. The present study was on Kenyan commercial banks with a time frame of 2015-2021, whereas the previous study was on Balkan countries' commercial banks within a time period of 2010-2020.

CONCEPTUAL FRAMEWORK

A conceptual framework is a graphical delineation of the basic model of the variables to be researched and the connection between them (Myers, 2008). Non-performance of loans was used as the regress and, elsewhere, risk assessment was employed as the explanatory variable. The research thus investigated how risk assessment influences the Non-performance of loans. The conceptual framework is portrayed in Figure 1 below.



Source: *Researcher 2025*

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RESEARCH METHODOLOGY

Explanatory study design is an effective research technique for examining cause-and-effect relationships, whereas a descriptive study design is a scientific methodology that allows for variable mobility without affecting the outcome (Kothari, 2011). Thus, Descriptive and explanatory investigation approaches were used because the study's objectives are to establish cause and effect and conduct in-depth research on the relationship between credit risk management and non-performing loans. A census of Kenya's 152 loan officers of the 38 commercial banking institutions was utilised. The study used data from primary and secondary sources. A census allows complete coverage of the population, ensuring that no relevant information is omitted and the results reflect the true characteristics of the population rather than estimates derived from the sample. Similarly, using census eliminates sampling error and enhances the validity, reliability and generalizability of the study findings. The researcher used structured, closed-ended questionnaires on a Likert scale with five points in obtaining primary data by administering questionnaires to the operational managers of all commercial banks' head offices on a drop-and-pick basis. The study utilised both descriptive and inferential statistics to analyse data. Correlation and regression analyses served as the foundation for inferential analysis. Means, frequency, and percentages tables were used for descriptive statistics.

The general model of the study was given as;

$NPL_{it} = \beta_0 + \beta 1 RAit + \varepsilon_{it}$

Where:

NPL = Non-Performing Loans

RA = Risk Assessment

β_0= Intercept

i= Bank

t= Time Period

β_1= Estimated Parameters

ε = Error Term.

Target Population

The entire group of participants combined make up the study population, which is what is regarded as the target population (Cooper & Schindler, 2009). The target population includes each of Kenya's 38 commercial banks, four loan officers, which amounts to 152 officers (CBK, 2023). Due to their presence over the study period, from 2019 to 2023, 38 commercial banks make up the study unit of analysis. Additionally, the research observation unit is comprised of loan officers.

Sampling Design

Sampling is a process of choosing a smaller portion or section of a specified population for reasons allowing for acceptable generalisation (Kothari, 2011). A census is important when the elements are significantly diverse from one another and is practicable when the population is small, according to Cooper, Schindler and Sharma (2018). A census of Kenya's 152 loan officers of the 38 commercial banking institutions was utilised. In support of this, Mugenda and Mugenda (2013) also argued that the census approach can be used when the population is small.

Data Analysis

From the 152 questionnaires administered, 106 were filled out and returned, representing a 69.7% return rate, which was adequate for analysis and presentation of the findings (Babbie, 2010).

Descriptive Statistics

Risk Assessment

Risk assessment is a critical process that follows risk identification and serves to evaluate the potential impact and likelihood of identified risks materialising. A robust risk assessment framework not only protects the interests of financial

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institutions but also supports sustainable lending practices that benefit both banks and their customers. The feedback collected from the participants is recorded in Table 1.

Table 1: Descriptive Statistics of Risk Assessment

Item	Responses n=106					Mean	St. Dev
	SD %	D %	N %	A %	SA %		
Management has procedures in place for evaluating risks	0	3.8	19.8	51.9	24.5	3.972	.774
Classification of loans is practised by the management for assessing risks	0	1.9	14.2	53.8	30.2	4.123	.713
Procedures have been put in place for the estimation of risks	0	1.9	5.7	64.2	28.3	4.189	.619
Procedures are in place to ensure all strategies to assess risks have been created	0	1.9	10.4	62.3	25.5	4.113	.652
Measures are put in place to evaluate risks associated with credits	0	1.9	6.6	63.2	28.3	4.179	.629
Risk estimation is an efficient measure for the assessment of risks	9.4	7.5	13.2	55.7	14.2	3.576	1.121
						Av. Mean = 4.025; Av. St. Dev =0.751	

Source: *Field Survey (2025)*

The perceptions regarding risk assessment were collected with a statement noting that management has procedures in place for evaluating risks, receiving a mean score of 3.972, with 0% of respondents strongly disagreeing, 3.8% disagreeing, 19.8% remaining neutral, 51.9% agreeing, and 24.5% strongly agreeing. This distribution indicates a strong consensus among participants that management effectively implements risk evaluation procedures, as evidenced by the high percentage of agreement and a relatively low standard deviation of 0.774, suggesting consistency in responses. Concerning the classification of loans, which is practised by the management for assessing risks, a mean score of 4.123 was revealed. The outcome uncovered that no respondent strongly disagreed, 1.9% disagreed, and 14.2% were neutral, while a significant 53.8% of the respondents agreed, with 30.2% of the respondents strongly agreeing that classification of loans is practised by the management for assessing risks. This result reflects a robust acknowledgement that loan classification is an integral part of the risk assessment process, further supported by a low standard deviation of 0.713, indicating that respondents largely share this view.

For the statement regarding the establishment of procedures for estimating risks, the mean score was 4.189, with no respondents strongly disagreeing and only 1.9% disagreeing, while a notable 64.2% agreed and 28.3% strongly agreed. However, 5.7% of the participants were neutral regarding the statement that the procedures have been put in place for the estimation of risks. The low variability (0.619) reinforces the perception that effective risk estimation procedures are in place, highlighting their importance in managing the banks' credit risk. As regards the statement that procedures are in place to make sure all strategies to assess risks have been created, the mean score was 4.113, with similar trends: no strong disagreement was recorded from the respondents, with only 1.9% of the respondents recorded disagreement, as 10.4% were neutral. The outcome unveiled that 62.3% of the respondents strongly agreed with the notion that procedures are in place to ensure all strategies to assess risks have been created, as supported by strongly agreeing coming from 25.5% of the participants. This

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indicates a positive perception regarding the comprehensiveness of risk assessment strategies employed by management.

Regarding the statement that measures are put in place to evaluate risks associated with credits, the mean score was 4.179, with no respondents strongly disagreeing and only 1.9% disagreeing as 6.6% of the respondents were indifferent that measures are put in place to evaluate risks associated with credits; meanwhile, 63.2% agreed and 28.3% strongly agreed, suggesting confidence in the measures established to evaluate credit risks. Conversely, the statement that risk estimation is an efficient measure for assessment of risks had a lower mean score of 3.576, with 9.4% of the respondents strongly disagreeing, 7.5% disagreeing, and 13.2% remaining neutral; however, a majority still agreed (55.7%) or strongly agreed (14.2%) that risk estimation is an efficient measure for assessment of risks. The higher percentage of disagreement indicates some concerns about the efficiency of risk estimation practices compared to other statements.

The average score mean across all statements is 4.025, with an average standard deviation of 0.751, reflecting generally positive perceptions towards risk assessment practices among respondents while highlighting areas needing improvement, particularly regarding the efficiency of risk estimation processes. The agreement by many of the respondents aligns with the results of Makori (2018), who demonstrated that the identification, evaluation, and monitoring of credit risks positively influence loan performance. Additionally, Abubakar (2021) revealed that risk assessment significantly impacts banks' non-performing loans (NPLs).

Inferential Statistics

This section is set out to detail the findings of correlation analysis and regression to link Risk Assessment and the non-performance of Loans of Kenyan commercial banks.

Multicollinearity Test Results

To assess this phenomenon, the Variance Inflation Factor (VIF) was employed, and the results are presented in Table 2.

Table 2: VIF Results

Variable	VIF	1/VIF
Risk Assessment	1.45	0.687391

Source: *Study Data (2025)*

The table above gives a VIF of 1.45. Multicollinearity was absent since the VIF was less than 10.

Normality Test Results

Normality was inspected using the Shapiro-Wilk test, as shown in the table below.

The results of the Shapiro-Wilk test, as presented in Table 3, indicate that the distribution of various variables adheres to the normality assumption.

Table 3: Shapiro-Wilk Test Results

Variable	Obs	W	V	Z	Prob>z
Non-Performing Loan	106	0.98999	0.868	-0.316	0.62397
Risk Assessment	106	0.92630	6.389	4.127	0.00002

Source: *Study Data (2025)*

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The outcome generated displayed that non-performing loans and risk assessment had p-values above 0.05 significance verge. These high W values and non-significant p-value indicate that the distribution of non-performing loans and risk assessment does not significantly deviate from normality.

Correlation Analysis

Correlation analysis is a statistical method used to determine the strength and direction of the relationship between two or more variables. This aimed at identifying how different aspects of credit risk management, such as risk identification, assessment, monitoring, and control, relate to the occurrence of non-performing loans. By employing correlation coefficients, this analysis provided insights into whether improvements in specific areas of credit risk management are associated with lower rates of loan defaults, as indicated in Table 4.

Table 4: Correlation Results

		Non-Performing Loans	Risk Assessment
Non-Performing Loans	Pearson Correlation	1	
	Sig. (2-tailed)		
Risk Assessment	Pearson Correlation	-.135	1
	Sig. (2-tailed)	.168	

Source: *Study Data (2024)*

The correlation between non-performing loans and risk assessment reveals a negative coefficient of -0.135, with a significance level of 0.168. This suggests that higher levels of risk assessment could be associated with lower instances of NPLs; however, this relationship is not statistically significant. The outcome agrees with Arifat and Baruti (2023), who unveiled a tenuous connection between risk assessment and performance.

Regression Analysis

Regression analysis serves as a powerful statistical tool to quantify the relationships between dependent and independent variables, allowing for a comprehensive understanding of how various factors impact loan performance. The results detailed the estimated coefficients, significance levels, and overall model fit, providing insights into the effectiveness of credit risk management practices. By examining these regression outcomes, the study identified key determinants of non-performing loans and assessed their implications for banking operations and policy formulation in Kenya. The findings of this survey are presented in Table 5.

Table 5: Direct Effect Results

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.219	.895		3.598	.000
	Risk Assessment	-.431	.189	-.254	-2.282	.025
	R	.376[a]				
	R-Sq	.142				
	F	4.167				
	Sig.	.004[b]				

Source: *Study Data (2024)*

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Optimal Model

The following regression model was developed;

$NPL_{it} = 3.219 - 0.431RAit + \varepsilon_{it}$

Where

NPL = Non-Performing Loans

RA = Risk Assessment

β_0= Intercept

i= Bank

t= Time Period

ε = Error Term.

Risk assessment exhibits a coefficient of -0.431, yielding a significance level of 0.025. This negative coefficient indicates that improved risk assessment practices are associated with a reduction in non-performing loans, and since the p-value is below 0.05, this relationship is significant. The findings concur with Nyasaka's (2018) study on the impacts of NPLs on KCB Group's financial performances and prevalence of credit risk management methods on NPLs at KCB Group, which found a negative association between risk assessment practices and reduction in non-performing loans.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Investigation of how risk assessment affects non-performing loans (NPLs) in Kenyan commercial banks revealed a significant negative effect on the banks' NPLs. In light of this finding, the survey concluded that robust risk assessment processes—such as thorough evaluations of borrowers' creditworthiness and financial stability—are essential for identifying potential defaults before they occur. Consequently, banks that prioritise and enhance their risk assessment frameworks are likely to experience lower levels of NPLs, thereby improving their overall financial health and stability.

Recommendations

Policymakers should consider implementing a comprehensive regulatory framework that emphasises the importance of robust risk assessment practices. This framework could include mandatory guidelines for banks to adopt standardised risk assessment methodologies that incorporate both quantitative and qualitative analyses. Additionally, the Central Bank of Kenya (CBK) could facilitate training programs aimed at enhancing the skills of bank personnel in identifying and evaluating credit risks. By promoting a culture of continuous improvement in risk management practices, these policies can help ensure that banks are better equipped to minimise NPLs and maintain financial stability.

Commercial banks should prioritise the integration of advanced data analytics and technology into their risk assessment processes. This can involve utilising machine learning algorithms to analyse vast amounts of borrower data, thereby improving the accuracy of credit evaluations and enabling proactive identification of potential defaults. Furthermore, banks should establish a dedicated risk management committee responsible for regularly reviewing and updating risk assessment frameworks in response to changing market conditions and emerging risks. By fostering a collaborative environment where insights from various departments are shared, banks can enhance their overall understanding of risk assessment and develop more effective strategies to reduce NPLs.

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