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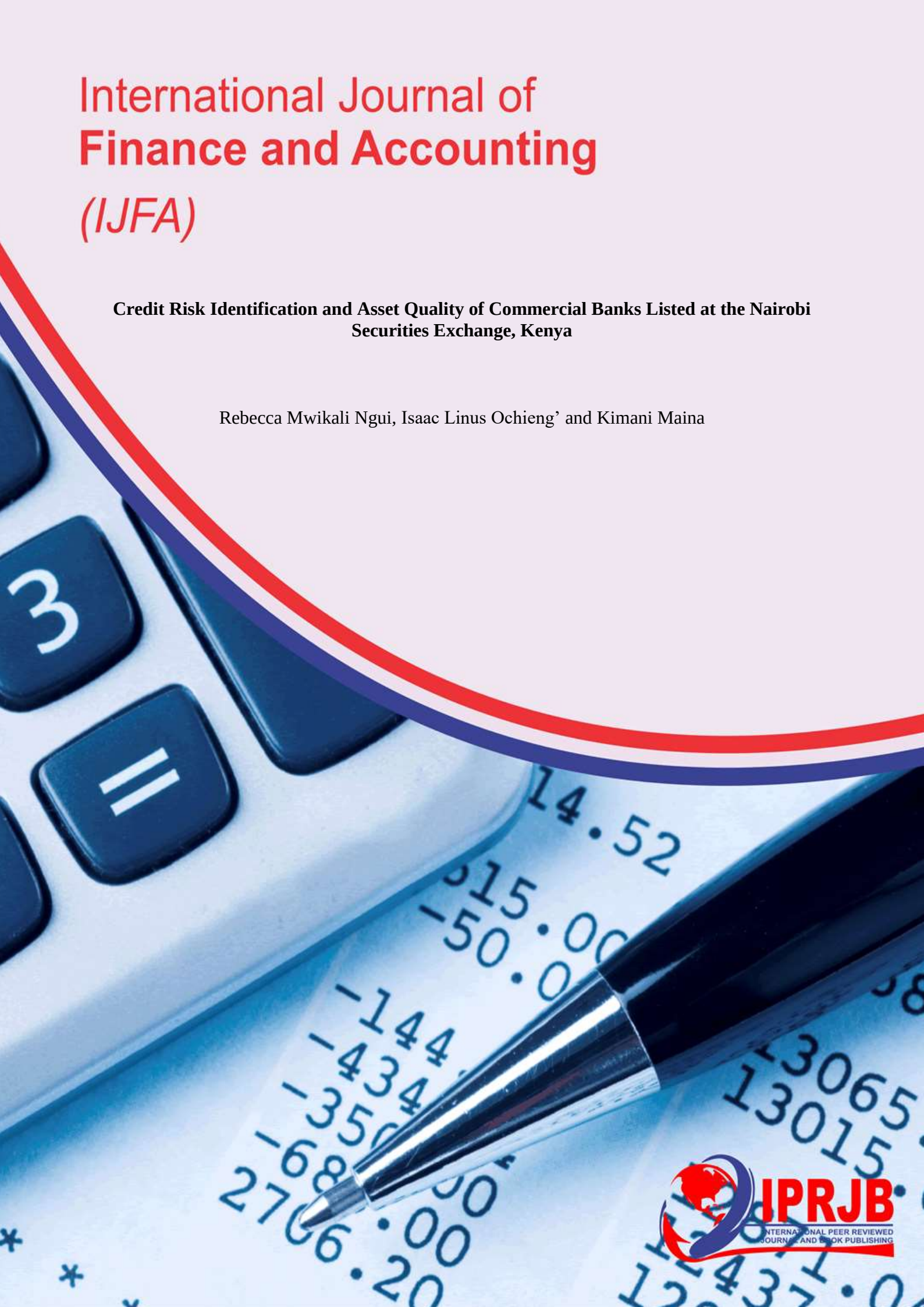

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# Credit Risk Identification and Asset Quality of Commercial Banks Listed at the Nairobi Securities Exchange, Kenya

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**Abstract**

**Purpose:** Lending remains the core activity of commercial banks, and subsequently the largest source of credit risk. For that reason, mitigation of credit risk exposure is vital for going-concern purposes. This study sought to establish whether there exists a relationship between credit risk identification and the asset quality of commercial banks listed at the NSE in Kenya. The theory that the study anchored upon was asymmetric information theory.

**Methodology:** The study used a descriptive research design. The population of the study was drawn from the 11 commercial banks listed at the NSE in Kenya. The study was conducted through a census. Secondary data for a year between 2015 and 2024 was utilized to collect financial information from the bank's annual reports, CBK and the KNBS and financial statements for analysis with the aid of a secondary data collection sheet. Data was analyzed using descriptive and inferential statistics.

**Findings:** The study revealed that credit risk identification had a significant positive effect on the asset quality of commercial banks listed at the NSE, Kenya.

**Unique Contribution to Theory, Practice and Policy:** In this regard, the study recommended that commercial banks in Kenya should consider using financial forecasts and budgets to investigate and evaluate the credit status of firms to identify possible risks and future exposures. The study recommends analyzing the borrower's industry, market position, and economic circumstances as part of the market assessment process. The study recommends further research by examining Basel 11 and Basel 111 effects on asset quality to establish whether it help in improving the credit risk identification for commercial banks.

**Keywords:** *Credit Risk Identification, Asset Quality, Commercial Banks, Nairobi Securities Exchange*

## INTRODUCTION

The banking industry is an essential component of financial services that supports development plans by directing funds for productive projects, facilitating the transfer of funds from units with surpluses to those with deficits, and bolstering governmental financial and economic policies, (Ombaba, 2017). One of the vital risks, that many commercial banks face, is credit risk, especially now that granting loans to bank borrowers is commercial bank's main source of income (Li & Zou, 2018).According to the Basel Accord (2001), credit risk is the likelihood that the loan amount will not be repaid in full or in part due to default risk.

Credit risk identification is vital for effective risk management. In order to manage credit bank risks effectively, management of bank have to know what risks face the bank, (Kromschroder and Luck, 2018). Asset quality is a small but very sensitive factor that measures the soundness and profitability of commercial banks and basically focuses on the quality of loans (Abata, 2014). Roselyne (2022) defines asset quality as the measures undertaken to reduce the risks connected to specific assets. Nzioka (2015) postulates that Asset quality measures how well a bank is able to predict and manage its credit risk of its assets. A bank with lower asset quality has a higher ratio of assets at risk which can make it harder to attract investors, leading to high chances of insolvency (Van Horne et al, 2017).

The 2009–2010 global financial crisis prompted a review of the worldwide banking regulatory environment. Reforms were therefore required to address the regulatory framework's shortcomings. The international banking regulatory system is being reformed under the direction of the Basel Committee on Banking Supervision (BCBS) (BCBS, 2010). A worldwide liquidity norm and a new, more stringent definition of capital were two of the new and improved regulations brought about by Basel III. These changes were intended to improve the uniformity, transparency, and quality of the capital base (BCBS, 2010). The two new liquidity ratios, the short-term Liquidity Coverage Ratio (LCR) and the longer-term Net Stable Funding Ratio (NSFR), require banks to raise high-quality liquid assets and find more reliable funding sources while adhering to the guidelines of liquidity risk management. Furthermore, Basel III replaces the risk-based Basel II framework with a new leverage ratio. The new leverage ratio may restrict banks' options by establishing 3% as the ratio of Tier 1 Capital to overall exposure (BCBS, 2010).Additionally, Basel III raised the capital requirements for repurchase agreements, counterparty credit risk resulting from derivatives, and securities financing activities. The new framework has also developed strategies to lessen Basel II's cyclical effects and systemic risk

### Statement of the Problem

The issue of loan delinquency is still a challenge for many commercial banks even if they have tried to follow credit guidelines and policies to lend prudently, (Kirui, 2023). KBA (2015) reported an increase in the PAR of commercial banks listed in Kenya by 4.5% in 2014.The rise was attributed to a mix of high interest rates environment and subdued economic activities that affected the banking sectors asset quality. In 2015, the ratio increased to 6.5 %,( CBK, 2016; KBA, 2017). In 2016, the ratio increased further to 7.2%, this was on account of a slowdown in private sector credit growth which reduced to an average of 20.5% in 2016 from an average of 23.5% in 2015. Particularly, there was a reduction in lending to areas perceived as risky and hence a lower loan loss provision, (Cytonn Investment 2019; KBA, 2017). The PAR ratio further increased by 9.9%, 10.5%, 12.4%, 13.1%, in 2017, 2018, 2019 and 2020 respectively. The increase was attributed to delays by the government in releasing payments to counties and

the private sectors which left many suppliers unable to service their debt obligations (CBK, 2019) and coronavirus-induced downturn in the economy which led to an increase in number of loan balances compared to total loans, (KBA, 2021). Cytonn (2023): CBK (2023) reports a further increase of PAR ratio to 13.1%, in 2021, 14.7% in 2022 and 15% in 2023.According to Cytonn report (2024), listed commercial banks will likely continue to see an uptick due to the adverse macro-economic environment. Some of the affected banks that recorded a rise in PAR ratio are HF group from 25.4% in 2017 to 28.2% in 2022, KCB from 8.3% in 2017 to 15.3% 2020, NCBA from 12.4% in 2015 to 14.1% in 2018,Co-operative Bank from 0.5% in 2014 to 13.2% in 2020, Stanbic Bank from 10.9% in 2017 to 13.3% in 2019,Equity Group from 8.4% in 2019 to 10.8% in 2021 and ABSA Bank Kenya from 6.8% in 2019 to 7.6% in 2022. These figures are way above the ideal ten-year average of 10.1%, (CBK, 2020).Various studies have been conducted on credit risk identification on commercial bank using either ROA or ROE as a measure of financial performance, (Githaiga, (2022), Mulongo (2017), Nguli (2019)).Other studies have been done globally which provide a geographical gap from the studies done in Kenya, AlShatti (2015) in Jordan,and Munnangi (2015) in South Africa) among others. From the empirical studies mentioned there's a need to take a close look at the relationship between credit risk identification by commercial banks and the resulting asset quality in banking institutions. It is therefore on this basis that this study shall be undertaken to establish the effect of credit risk identification on asset quality of commercial banks listed at the NSE in Kenya.

### Objective of the Study

The objective of the study was to assess the effect of credit risk identification on asset quality of commercial banks listed at the NSE in Kenya.

### Hypotheses of the Study

**$H_0$:** Credit risk identification does not have a significant effect on asset quality of commercial banks listed at the NSE in Kenya.

## LITERATURE REVIEW

### Theoretical Review

The study will be anchored on the Asymmetric Information Theory (Akerlof, 1970) to explain credit risk identification. Asymmetric information theory was developed by Akerlof in 1970. The asymmetric information theory postulates that when it comes to screening possible bank candidates, there is an information imbalance due to the asymmetric information provided. Theoretically, there exists a scenario in which certain agents involved in financial transactions possess greater informational access than others (Ekumah & Essel, 2003). The premise of the theory is that one party to a transaction may choose to withhold information from the other side in order to benefit themselves since they have access to more information than the other. The impact of judgments made using divergent information from various sources is the focus of the literature on information asymmetry in financial decision-making (Harakeh, Matar & Sayour, 2020).

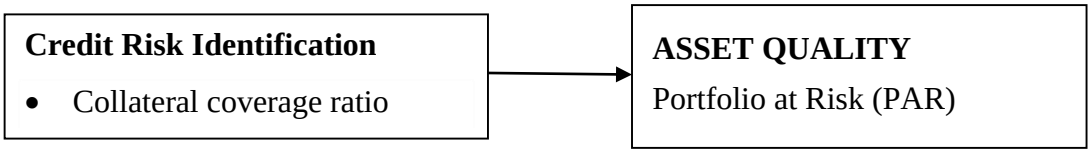
Asymmetric information theory assumes that in a transaction one party has a disproportionate amount of knowledge about a good or service and this may lead to knowledge imbalance that can result in market inefficiencies, (Auronen, 2003). The theory contends that, in the absence of customer knowledge, both high-quality and low-quality products might fetch the same price. This is a theory relevant for situations where there is imperfect knowledge. It specifically happens when one party has different information from another. As a result of less information

asymmetry between lenders and customers, credit reference bureaus will be able to create credit risk management strategies like credit rating, which will enable banks to offer loans to borrowers who are deemed creditworthy. This will increase total lending and lower default rates. Zellweger and Halter (2017) established the role of information asymmetry in the choice of entrepreneurial exit routes.

One of the theory's primary drawbacks is that it can only be used for extremely simple market models with a limited number of potential actors or states, making it difficult to modify mathematically to take into consideration the intricacies seen in actual markets (Auronen, 2003).Second, it only takes into account asymmetries from the borrower to the lender, even though the lender might limit the borrower's access to information, which could lead to default. Nonetheless, the opposing side may likewise profit from knowledge gaps. Borrowers are presumed to be constantly aware of the reasons that could make it difficult for them to repay debt, but this may not always be the case because some situations are so unpredictable that debtors are unaware of them (Auronen, 2013).Asymmetric information theory explains a condition where all parties in firm are not aware of the available relevant information (Eppy, 2015). Stiglitz (2021) indicates competitive behavior in such markets involves intertemporal linkages. The theory points out two problems associated with the perceived information asymmetry for to financial institution. That is the adverse selection and moral hazard. The theory affirms that, if commercial banks can exchange their client's information specially to identify clients' creditworthiness, it can lower loan repayment rate (Weinberg, 2006).

**Conceptual Framework**

The research has two variables: the independent variable and the dependent variable




**Independent Variables** **Dependent Variable**

*Figure 1: Conceptual Framework*

**Empirical Review**

Anwer et al., (2023) in their study that sought to establish the effects of credit risk identification practices and financial performance of commercial banks in Iraq. The study applied qualitative techniques to establish the extent to which a business employs adequate risk management identification procedures and tools, the target population of the study was 500 employees that included senior, intermediate, and practical level personnel in various banking sectors in Iraq. The study employed multiple regression and Pearson's correlation for inferential analysis to identify the most critical and relevant variables that contribute to the improved performance of Iraq's commercial banks. The study findings revealed a substantial link between credit risk identification and the performance of commercial banks in Iraq.

Arif and Anees (2017) examined the effect of credit risk identification on performance of the Pakistani Banking system. The study utilized 22 banks during 2004-2009. Secondary data was utilized and analyzed using multiple regressions to assess the impact of liquidity risk on bank's profitability. The study found out that risk identification has a significant negative relationship with profitability. Further, the liquidity gap and non-performing loans were found to be the two

factors magnifying the credit risk. The study also found out that liquidity problems may adversely affect a bank's earnings and capital. In extreme circumstances, it may lead to the failure of a solvent bank. A bank having liquidity problems may experience difficulties in meeting the demands of depositors.

Omar,(2019) sought to study the effects of credit risk identification on loan performance of commercial banks in Mogadishu Somalia.The study was conducted in selected banks of Mogadishu Somalia, the data was collected from 217 respondents using closed ended questionnaires. Data from the field were edited and coded according to themes which emanated from the research objectives and questions. Qualitative data was derived from open-ended questions in the questionnaires while the qualitative data were derived from closed ended questions. Analysis of data was done using SPPS version 22 to generate descriptive statistics of means and standard deviations, there after simple linear regression and multiple regression was used to determine the effect of risk management on Loan performance. The findings reveal that risk identification had a significant effect on loan performance.

Wanjagi (2018) sought to study the effects of credit risk identification and financial performance of commercial banks in Kitengela, Kenya. The target population for this study were 50 staff members from the credit department of Commercial banks. The researcher used convenience sampling in which it narrowed down to 5 Commercial banks in Kitengela which included Equity, Cooperative, Barclays, KCB and Family. The research relied heavily on primary data. The data was gathered through self-administered questionnaires containing closed ended questions. The information was gathered and coded using descriptive statistics, specifically the mean and standard deviation to explain each variable. The data was analyzed through statistical package for social sciences (SPSS). Pie charts, frequency distribution tables, and bar charts had a great role in the presentation of results while ANOVA was used in analyzing the findings. The findings indicate that credit risk identification had a positive impact on financial performance of banks in Kitengela and the impact was substantial.

**Research Gap**

Research on credit risk identification encompassing both developed and developing countries, has primarily centered on the variables influencing the asset quality in actively trading and listed companies across varying periods (Odhowa & Mutswenje, 2023). The empirical review of literature makes it clear that there are contextual, methodological, and conceptual research gaps. While the existing research provides valuable insights into credit risk identification and asset quality, certain limitations and gaps can be identified.

Contextually, most studies carried out on the effects of credit risk identification and asset quality on commercial banks were done in other jurisdictions which may limit the generalization of the findings. Beyond Kenya, studies have covered various sectors and countries. First, the studies predominantly focus on various international contexts, such as Sweden, Bangladesh, Rwanda, Nigeria, India and Uganda, with minimal attention given to the specific Kenya context. Therefore, a knowledge gap exists on the effect of credit risk identification in the context of commercial banks and terms of geographical location.

Methodologically, many studies have been limited to historical and qualitative data which may not capture current situations. Sathyamoorthi, Mapharing, Mphoeng, and Dzimiri (2020) analyzed the relationship between credit risk identification and financial performance of commercial banks in Uganda using secondary data for five-years. Naqvi et al.,(2018) conducted a study with the aim of establishing the effects of credit risk identification practices

on loan performance of Commercial Banks in Pakistan Data was collected from primary sources using close-ended questions. Anwer et al., (2023) used primary data with multiple regression to establish the effects of credit risk control practices and financial performance of commercial banks in Iraq. The current study intends to apply the asset quality, with panel regression as the model for analyzing inferential statistics for 10 years.

Moreover, while some studies have examined the relationship between credit risk identification and asset quality, there is insufficient evidence demonstrating a clear and significant impact of credit risk identification strategies on enhancing asset quality thereby suggesting the need for more robust and comprehensive analyses for a more focused and in-depth analysis of these mechanisms within the Kenyan banking sector.

## METHODOLOGY

Descriptive research will be used to collect detailed information, while causal quantitative design will be used to establish the existence of cause-and-effect relationships among variables (Cooper &Schindler, 2004). The target population for this study was 11 commercial banks listed at the NSE in Kenya as of December 2023. A census study will be employed. The study collected secondary data utilizing a data collection sheet as attached in Appendix II, which was used to compile information from reports released by the Central Bank of Kenya and KNBS. The data was coded and then imported into STATA 18 software for analysis to generate tables, graphs, regression and statistical analysis. The study employed a panel regression model.

The regression equation that will be applied is shown below.

$$Y_{it} = \beta_0 + \beta_1 RI_{it} + \varepsilon_{it} \quad \text{.....Equation 3. 1}$$

Where, ***Y*** is the asset quality of listed commercial banks

$\beta_0$, represent the constant or coefficient of intercept

$\beta_1, \beta_2, \beta_3$ and $\beta_4$ represent the coefficients of independent variables

***RI*** represent risk identification

***it*** represents indices for individuals firm in time t

$\varepsilon$ represent the error term

## FINDINGS AND DISCUSSIONS

### Descriptive Statistics

The study sought to establish the influence of credit risk identification on asset quality of listed commercial banks in Kenya. The results of the analysis are shown in Table 1.

**Table 1: Descriptive Statistics**

| Statistics | N | Min 1 | Max 2 | Mean 3 | SD 4 | Skewness 5 | Kurtosis 6 |
|---|---|---|---|---|---|---|---|
| Credit Risk Identification | 11 | 0.25 | 0.76 | 0.761 | 0.18 | 2.0003 | 1.3140 |
| Asset Quality | 11 | -2.523 | 1.029 | 0 .1682 | 2.653 | 1.7167 | 2.0045 |

The descriptive statistics presented in Table 1 indicated the minimum and maximum values that describes the range of 0.25 and 0.76 respectively are an indication that commercial banks had a diverse range of credit identification practices with the lowest being rated at 0.25 and the highest rating being 0.76 across listed commercial banks in Kenya. The average mean of credit risk identification was 0.761. This implies that 76.1% of listed commercial banks in Kenya are

able to identify the risk profile of their customers by measuring the value of collateral to the total amount of loan required by their customers. This is essential in assessing a firm's lending capacity and the amount that can be extended to a specific borrower based on the security value provided. A standard deviation of 0.18 around the mean reveals that credit risk identification practices for listed commercial banks is divergent from each other with values deviating from the mean to varying extents. The study revealed a relatively normal distribution with skewness values of 2.0003 indicating that a large proportion of data lied on the asymmetric right tail of the distribution. The Kurtosis coefficient of 1.3140 was considered to be normal, (Hair et al., 2022).

Asset quality ranged from a minimum of -2.5231 to a maximum of 1.0295. The negative minimum figure implied that some firms had higher risk of default and lower rate of return depicted by the negative minimum value whereas others had good asset quality rating above 1 that depicted strong performance and risk management practices as shown by the maximum value Table 4.1 reveals that the average asset quality, measured by portfolio at risk (PAR), was 0.1682, signifying that 16.82% of listed commercial banks in Kenya effectively employed their assets to manage the extent and magnitude of credit risk inherent in their operations through the implementation of robust credit risk management strategies. Utilizing PAR as a risk management instrument is essential for commercial banks, since it enables management to precisely and objectively assess their loan portfolios to proactively detect credit-related problems.

**Trend Analysis**

The study sought to identify the trend analysis for credit risk identification. Figure 2, indicates the time series results of credit risk between the period of 2014 to 2023

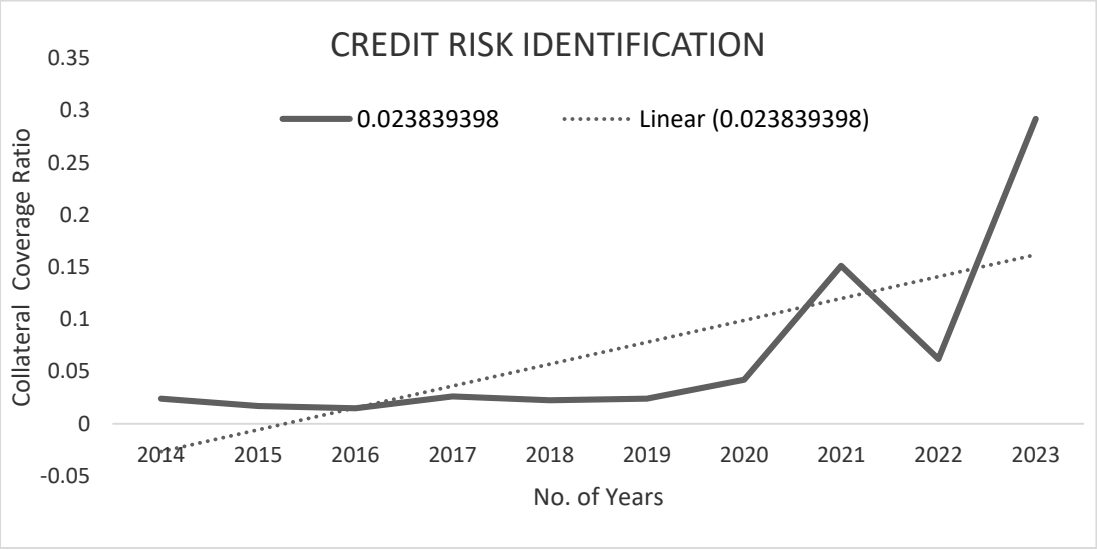



*Figure 2: Trend Analysis for Credit Risk Identification*

Initially, from 2014 to 2020, credit risk identification as shown by collateral coverage ratio remained stagnant an indication that listed commercial banks did not apply a large portion of collateral coverage ratio to identify their potential defaulters. This was followed by a slight increase in 2021, decreased again in 2022 and in 2023, a sharp increase which could be attributed to factors such as increase in loan defaults caused by economic condition, policies and market dynamics

### Inferential Statistics

To evaluate the relationship between credit risk identification and asset quality of commercial banks listed at the NSE, Kenya and draw broad conclusions about the firms, inferential statistics was employed.

### Correlation Analysis

Correlation analysis was conducted to determine the relationship that existed between credit risk identification and asset quality of commercial banks listed at the NSE, Kenya. Pearson's coefficient of correlation (r) was utilized to give a value between +1 to -1. Where 1 indicates a strong positive relationship, -1 a strong negative correlation and 0 indicates no relationship. The results are presented in Table 2.

**Table 2. Correlations Coefficients**

| Correlation | | PAR | Credit Risk Identification |
|---|---|---|---|
| PAR | Pearson Correlation | 1 | |
| | Sig.(2-tailed) | | |
| Credit Risk Identification | Pearson Correlation | -.811** | |
| | | | 1 |
| | Sig.(2-tailed) | .0000 | |
| N | | 11 | |

* Correlation is significant at the 0.05 level (2-tailed).

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

According to the findings on Table 4.2, the analysis of the results reveal a strong negative correlation between credit risk identification and asset quality ($r = -0.811$, $p < 0.05$). The significance probability for all the variable was found to be less than the significant threshold ($P<0.05$). Thus, the study concluded that credit risk identification has a statistical significant relationship on asset quality of commercial banks listed at the NSE, Kenya at 5% level of significance.

### Regression Analysis

The study sought to know the relationship between credit risk identification and asset quality of commercial banks listed at the NSE, Kenya. Panel regression analysis was done to obtain the R coefficient and R square that determined the relationship. The coefficient of determination ($r^2$) was applied to explain the extent of these changes. Table 3 explains the model summary

**Table 3: Model Summary**

| Model 1 | Multiple R | R Squared | Adjusted R Square | S.E Regression | Obs |
|---|---|---|---|---|---|
| Asset Quality | 0.784 | 0.614 | 0.577 | 1.447 | 110 |

Table 3 indicates the results of the model summary with Multiple R showing the correlation coefficient between the observed and predicted value of 0.784. The correlation coefficient depicted a strong relationship between credit risk identification and asset quality of commercial banks listed at the NSE, Kenya.

The coefficient of determination $R^2$, is a measure that provides information about the goodness of fit of the model. In the context of regression, it is a statistical measure of how well the regression line approximates the actual data. The results of the model summary revealed an $R^2$ value of 0.614 (61.4%). This implies that the variations in the percentage of credit risk identification explained 61.4 % of the variations in portfolio at risk, thus, the variables had a predictive/explanatory power on the asset quality of commercial banks listed at the NSE, Kenya

The adjusted R-squared which is a modified version of R-squared takes into account how many independent variables can be added or adjusted to improve the regression model to increase the reliability of that model. In other words, the adjusted R-squared shows whether adding additional predictors improves a regression model or not. The results of the adjusted $R^2$ of 0.577 imply that if additional predictor variables are taken into account, 57.7% of the variations in the percentage of credit risk identification will improve the asset quality of commercial banks listed at the NSE, Kenya. Other factors not included in this study model explain the remaining 42.3% of the variation in asset quality of commercial banks listed at the NSE in Kenya.

**Analysis of Variance (ANOVA)**

The study further evaluated the model's significance through the Analysis of Variance (ANOVA) technique. The results are presented in the table below.

**Table 4: ANOVA**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 169.064 | 3 | 56.35 | 8.563 | 0.000 [b] |
| | Residual | 46.09 | 7 | 6.58 | | |
| | **Total** | 215.154 | 10 | | | |

Critical value = 2.75

An F statistic is a test based on the F-test used to determine the significance of an R square change. A significant F change implies the variable added significantly improves the model prediction. The calculated F value was greater than the critical value (8.563> 2.75) proving that the regression model is effective in its explanation of the variation in the asset quality of commercial banks listed at the NSE, Kenya. The significance value was less than 0.05 indicating that the model was significant. Therefore we reject the null hypothesis that the model is insignificant and conclude that credit risk identification has a significant effect on the asset quality of commercial banks listed at the NSE, Kenya. From the ANOVA results, the study established the regression model had a significance level of 0.000 (0%). Given that the p-value (significant value) is less than 5%, it is evident that the data utilized in the study was sufficient and reliable for drawing conclusions about the variable being examined.

**Regression Coefficient Results**

Panel regression analysis among dependent and independent was carried out to establish the effects of credit risk identification and asset quality of commercial banks listed at the NSE, Kenya. The coefficient results are shown in Table 5.

**Table 5: Regression Coefficients**

| | B | Std Error | tStat | P-value | [95% Conf. | Interval |
|---|---|---|---|---|---|---|
| Credit Risk Identification | -0.48611 | 0.23669 | -2.05 | 0.001 | 0.16226 | 0.75721 |
| (Constant) | -0.73813 | 0.15768 | 4.68 | 0.000 | 0.06271 | 0.29800 |

The output generated as per the STATA 18 is as presented in Table 4.5, thus the equation is as shown:

$$Y = 0.73813 - 0.48611RI_{it}$$

Where, ***Y*** is the asset quality of listed commercial banks

***RI*** represent risk identification

***it*** represents indices for individuals firm in time t

**Hypothesis Test Results**

The objective of this study was to determine the effect credit risk identification on asset quality of commercial banks listed in Nairobi Security Exchange, Kenya. The null hypothesis ($H_{01}$) indicated that credit risk identification has no significant effect on asset quality of commercial banks listed at the NSE, Kenya. The findings in Table 4.5 show that credit risk identification had Beta values of -0.48611 with P value of 0.001 (P>0.005).The results imply that holding other factors constant and credit risk identification is controlled, a unit increase of credit identification techniques will lead to a decrease in the PAR and thereby improving the asset quality of commercial banks listed at the NSE, Kenya by 0.48611. The decrease will be significant given the p values of 0.001 (P>0.005). The study thus rejected the null hypothesis and concluded that credit risk identification has a significant effect on asset quality of commercial banks listed at the NSE in Kenya.

The findings resonates with those of Arif and Anees (2017), Anwer et al., (2023), Omar (2019 and Siddique (2022) who found out that by understanding the possibility of defaults and non-repayment, credit risk identification enables organizations such as banks and credit unions to take preventative action to reduce losses thus improving the quality of assets of Kenya's listed commercial banks.However, contrary to the findings is a study done by Sathyamoorthi, Mapharing, Mphoeng, and Dzimiri (2020), Wanjagi (2018) and Wanjagi (2018) who all agree that credit risk identification negatively affects the asset quality of commercial banks while Onango (2017) on the other and found no significant relationship between credit risk identification on asset quality of commercial banks in Kenya.

## SUMMARY, CONCLUSION AND RECOMMENDATIONS

### Summary

The specific objective was to examine the effect of credit risk identification and asset quality of commercial banks listed at the NSE, Kenya. The correlation results yielded a strong negative correlation between credit risk identification and asset quality. Statistical tests on the null hypothesis revealed that there was a significant relationship between credit risk identification and PAR. This implied that as listed commercial banks increase their credit identification practices, the PAR declines thus increasing the asset quality of these banks. The null hypothesis was thus rejected, and conclusion made that credit risk identification increases the asset quality of commercial banks listed at the NSE, Kenya.

## Conclusion

The study underscores the importance of effective credit risk identification practices as essential for banks since they serve as the cornerstone of good credit risk management, which allows them to evaluate, reduce, and ultimately prevent revenue losses brought on by loan defaults, guaranteeing long-term financial sustainability and stability of commercial banks listed at the NSE, Kenya. The study concludes that commercial banks listed at the NSE, Kenya should increase credit risk identification strategies that will help identify high risk borrowers and adjusting to lending terms accordingly to help improve on their asset quality.

## Recommendations

Identification and management of credit risk are important components of risk management systems, which are the focus of much banking industry research. Recommendations for commercial banks managers to use financial forecasts and budgets to investigate and evaluate the credit status of firms in order to identify possible risks and future exposures. Commercial banks should set up a system for introducing, developing, and training the ability to analyze and control risks in order to draw in more qualified credit risk managers and enhance their capacity to identify credit risks. In order to enhance their ability to identify credit risk, listed commercial banks should implement multi-level credit rating systems that differentiate credit ratings for various borrower categories

## Suggested Areas for Further Research

The study's conclusions were derived from secondary data. The opinions of customers about various credit risk management techniques were not investigated. The strength of the credit risk identification procedures is undermined by the client's approval, loyalty, and confidence. Thus, a qualitative study should be carried out to find out how customers perceive about the credit risk identification procedures used by listed commercial banks in Kenya. The study could be further enhanced by examining Basel 11 and Basel 111 effect on asset quality after Basel 11 has been fully implemented in the Kenyan commercial banks with the aim of establishing whether it helps in improving the risk identification and ultimately enhancing financial stability and resilience for commercial banks. The findings of the study are based on commercial banks listed at the NSE, Kenya only. This model can be used to study all the commercial banks in Kenya or other sectors of the economy like the insurance firms, microfinance institutions, investment schemes and other financial institutions and further apply more specific other objective-based research on the same ground.

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