JRIIE Journal of Research Innovation and Implications in Education
Center for Research Implications & Practice

Website: www.jriiejournal.com ISSN 2520-7504 (Online) Vol.10, Iss.4, 2026 (pp. 1126 - 1135)

Effect of Risk Management on the Financial Performance of Bank of Kigali Plc, Rwanda

Living Kwizera
University of Kigali, Rwanda
Email: livingkwizera@gmail.com

Abstract: *This study examined the effect of risk management on the financial performance of Bank of Kigali Plc in Kigali, Rwanda. An ex post facto design was adopted, using secondary data from the bank's audited financial statements and annual reports for 2016–2025. The population comprised the bank's financial records on risk management and financial performance, and all ten annual observations were studied through a census. A secondary data extraction sheet was the data collection instrument, and the data were analysed with descriptive statistics, Pearson correlation, and multiple regression in SPSS Version 26. Credit risk management had a significant positive relationship with financial performance ($r = 0.725$, $p = 0.018$) and a significant positive effect ($\beta = 0.756$, $p = 0.036$). Operational risk management ($\beta = 0.484$, $p = 0.113$) and strategic and reputation risk management ($\beta = 0.176$, $p = 0.595$) had positive but insignificant effects. The model explained 55.1% of the variation in financial performance (adjusted R^2) but was not significant overall ($F = 4.689$, $p = 0.051$). With only ten annual observations, the findings should be interpreted cautiously. The bank is advised to strengthen credit assessment and monitoring, improve operational efficiency and cost control, and integrate strategic and reputational risks into its risk management framework.*

Keywords*: Banks, Credit, Performance, Profitability, Risk, Rwanda*

How to cite this work (APA):

Kwizera, L. (2026). Effect of Risk Management on the Financial Performance of Bank of Kigali Plc, Rwanda. *Journal of Research Innovation and Implications in Education, 10*(4), 1126 – 1135. https://doi.org/10.59765/bxt65j

1. Introduction

Risk management is a central concern for organisations that pursue their objectives under uncertainty. It involves identifying potential risks in advance, analysing their likely effects, and taking measures to prevent, reduce, or control their consequences (Huang et al., 2022). The concern is sharper in banking because lending, deposit mobilisation, and other intermediation activities expose banks to uncertainty arising from borrowers, internal operations, business strategy, competition, and stakeholder expectations. Bank managers must therefore identify, assess, monitor, and control these exposures if financial and strategic objectives are to be achieved (Fraser et al., 2021).

Risk management is commonly described as a two-step process. The first step identifies the sources of risk, and the second devises methods, often mathematical models, to quantify the risk profile (Hubbard, 2020; Loosemore et al., 2012). When this process fails, a bank may suffer loan defaults, excessive operating costs, declining customer confidence, and deteriorating profitability. Machiraju (2008) notes that banks succeed when the risks they take are reasonable, controlled, and within their financial resources and competence. The relationship between how well a bank manages risk and how well it performs financially is therefore both a practical and an empirical question.

Scholars in different parts of the world have examined how risk relates to bank performance. Bhatt et al. (2023) studied the determinants of credit risk management and their relationship with the performance of commercial banks in Nepal. Chong et al. (2019) compared risk management and profitability between domestic and foreign Islamic banks in Malaysia, while Rahman et al. (2026) investigated the effect of bank risk on the performance of Indonesian commercial banks. Psillaki et al. (2010) observed that effective management of credit risk supports the viability and profitability of a bank and also contributes to wider systemic stability.

Within Africa, the evidence has grown mainly around credit risk. Studies have focused on commercial banks in Kenya (Musyoki & Kadubo, 2012; Oludhe, 2011), Ethiopia (Endaweke, 2015; Shibiru & Mebratu, 2017), Nigeria (Adeusi et al., 2014; Olugboyega et al., 2019; Yahaya, 2026), Tanzania (Lazaro et al., 2025), and Zambia (Chimbala, 2026). Banks in the region also contend with changing customer behaviour, fraud, market uncertainty, and regulatory compliance demands (Arim & Wamema, 2022). Credit risk is therefore only one of several risk dimensions that may matter for performance.

In Rwanda, the literature is thinner. Umutesi and Mahazi (2025) related loan portfolio management to the financial performance of financial institutions, using Access Bank as a case, and Mukabarisa et al. (2025) examined credit allocation, risk management, and loan portfolio management in relation to the financial stability of Bank of Kigali. The bank's own record shows why the question deserves attention. Between 2016 and 2025, its non-performing loan ratio rose from 5.40% to a peak of 7.72% in 2021 and then fell to 3.87% in 2025, and it exceeded 5% in every year from 2016 to 2022. Over the same decade, return on equity fell from 24.2% in 2016 to 14.1% in 2018 and recovered to 21.0% in 2025 (detailed in the Results and Discussion section).

Despite this attention, little evidence exists on how the different dimensions of risk management jointly relate to profitability in a Rwandan bank. Existing work tends to concentrate on credit risk alone (for example, Shibiru & Mebratu, 2017) or on loan portfolio management and financial stability. In the literature reviewed, no study has tested the effects of credit, operational, and strategic and reputation risk management together on return on assets, return on equity, and net profit margin at Bank of Kigali over a ten-year period. This study addresses that gap.

The study is justified on three grounds. First, the bank's non-performing loans and profitability fluctuated considerably over the decade, so its management needs evidence on which risk management dimensions are associated with performance. Second, the study moves Rwandan evidence beyond credit-only or portfolio-focused analyses to a three-dimension framework. Third, it offers a baseline for later multi-bank and primary-data studies.

The general objective was to assess the effect of risk management on the financial performance of Bank of Kigali Plc, Rwanda. The specific objectives were to (a) examine the effect of credit risk management, (b) assess the effect of operational risk management, and (c) analyse the effect of strategic and reputation risk management on the bank's financial performance. Three null hypotheses were tested: that credit risk management (H_{01}), operational risk management (H_{02}), and strategic and reputation risk management (H_{03}) each have no statistically significant effect on financial performance.

2. Literature Review

2.1 Theoretical and Conceptual Discussion

The study is anchored on three theories. Loan Pricing Theory holds that banks should incorporate the credit risk of borrowers into lending decisions and loan pricing so that expected returns compensate for the risks assumed (Rahman et al., 2026). Risk Management Theory suggests that systematic identification, assessment, monitoring, and control of risks should reduce potential losses and support organisational performance (Łuczak, 2025). Financial Distress Theory implies that the greater a bank's exposure to credit risk, the greater its probability of experiencing financial distress (Psillaki et al., 2010). Together, these theories imply that well-managed risk should be reflected in stronger bank performance.

Credit risk is the potential loss that arises when a borrower or counterparty fails to meet obligations on the agreed terms, and credit risk management comprises the procedures banks use to identify, assess, monitor, and control such losses (Łuczak, 2025). In this study, it is represented by the non-performing loan ratio (NPLR), which shows the share of gross loans that are non-performing (Chimbala, 2026), and the loan loss provision ratio (LLPR), which shows provisions held against expected credit losses relative to gross loans (Rahman et al., 2026). Operational risk covers risks that are not credit or market risks but that have a measurable financial impact (Teplý, 2012). Loader (2011) notes that operational risk is as old as banking itself, although the industry has only recently agreed on what it is, and interest in managing it is growing among banks (Vasiliev et al., 2018). Flores et al. (2006) add that banks' ability to assess and control the consequences of major operational events appears less developed than their management of credit and market risks. Effective operational risk management can help banks control expenses and protect profitability (Ogundele & Nzama, 2025; Saeed & Donkoh, 2026), and it is represented here by the cost-to-income ratio (CIR) and the operating expense-to-total assets ratio (OETA).

Abuya (2008) argued that every entity faces uncertainty as it seeks to create value for stakeholders and that strategic risk management helps managers decide how much uncertainty to accept. Andersen and Terp (2006) add that it promotes transparency and risk awareness in management decisions. Reputation, in turn, reflects stakeholders' collective view of an organisation's past activities and results (Krzakiewicz & Cyfert, 2015). Because these risks cannot be read directly from financial statements, the deposit growth rate (DGR) and asset growth rate (AGR) are used as financial proxies. Financial performance is measured by return on assets (ROA), which shows how effectively a bank's assets generate net profit; return on equity (ROE), which shows

the return earned on shareholders' funds; and net profit margin (NPM), which shows the share of operating income converted into net profit. Higher values of each indicate stronger performance.

The conceptual framework of the study therefore treats risk management as the independent variable, with three dimensions (credit risk management [CRM], operational risk management [ORM], and strategic and reputation risk management [SRRM]), each measured by two ratios, and financial performance (FP) as the dependent variable, measured by ROA, ROE, and NPM. The framework expects that well-managed risk is associated with stronger financial performance, and the hypotheses test whether this holds for each dimension.

2.2 Empirical Studies

Outside Africa, studies in Nepal, Malaysia, and Indonesia have linked bank risk to performance (Bhatt et al., 2023; Chong et al., 2019; Rahman et al., 2026). African evidence is more detailed. In Kenya, Musyoki and Kadubo (2012) analysed ten banks over seven years, using default rate, bad debts cost, and cost per loan asset against ROA, and found that all three parameters had statistically significant effects on performance, with default rate the main predictor. Oludhe (2011) also examined the effect of credit risk on the performance of Kenyan commercial banks. In Nigeria, Olugboyega et al. (2019) studied ten listed deposit money banks for 2005–2016 using random-effects generalised least squares regression, with the non-performing loan to total loan ratio, the non-performing loan to total deposit ratio, and the capital adequacy ratio as credit risk measures. All three had a significant relationship with ROA and ROE, and the authors recommended rigorous credit policies. Adeusi et al. (2014) and Yahaya (2026) likewise examined risk management and credit risk management in Nigerian banks.

In Ethiopia, Shibiru and Mebratu (2017) used panel regression on six private commercial banks for 2000–2013 and reported that the capital adequacy, total loan, non-performing loan, bank size, and liquidity ratios significantly affected ROA and ROE. Endaweke (2015) went beyond credit risk, using a balanced fixed-effects panel of eight commercial banks for 2002–2013, and found that the non-performing loan ratio, a liquidity indicator, and the cost-to-income ratio each had a negative and statistically significant effect on performance. Lazaro et al. (2025) and Chimbala (2026) extend the credit risk evidence to Tanzanian and Zambian banks, respectively.

In Rwanda, Umutesi and Mahazi (2025) and Mukabarisa et al. (2025) focused on loan portfolio management, credit allocation, and financial stability. The reviewed studies therefore leave unanswered how credit, operational, and strategic and reputation risk management jointly relate to profitability indicators at Bank of Kigali. This study addresses that question.

3. Methodology

3.1 Research Design

The study adopted a quantitative ex post facto design. The design was appropriate because the data were historical financial records that had already been generated and could not be manipulated by the researcher. It allowed the relationships and effects among the variables to be analysed from the bank's reported financial ratios.

3.2 Population and Study Location

The population consisted of the financial records of Bank of Kigali Plc on risk management and financial performance, as reported in its audited financial statements and annual reports for the ten years from 2016 to 2025. The study focused on Bank of Kigali Plc, whose headquarters are in Nyarugenge District, Kigali City, Rwanda.

3.3 Sampling Procedure

The study used a census. All ten annual observations (2016–2025) were included, so no sampling formula was required and the sample size equalled the population ($N = 10$).

3.3 Data Collection and Instrument

The researcher extracted secondary data from the statement of financial position, the income statement, and the notes to the accounts, using a secondary data extraction sheet developed directly from the variables and ratios in the conceptual framework. Table 1 summarises the variables and indicators. The ratios were computed from year-end balances reported in the audited statements.

Table 1: Variables, Indicators, and Measurement

Variable	Indicator	Measurement (× 100)
Credit risk management (CRM)	Non-performing loan ratio (NPLR)	Non-performing loans ÷ gross loans
	Loan loss provision ratio (LLPR)	Loan loss provisions ÷ gross loans
Operational risk management (ORM)	Cost-to-income ratio (CIR)	Operating expenses ÷ operating income
	Operating expense-to-total assets ratio (OETA)	Operating expenses ÷ total assets
Strategic and reputation risk management (SRRM)	Deposit growth rate (DGR)	(Deposits this year − deposits last year) ÷ deposits last year
	Asset growth rate (AGR)	(Assets this year − assets last year) ÷ assets last year
Financial performance (FP)	Return on assets (ROA)	Net profit ÷ total assets
	Return on equity (ROE)	Net profit ÷ shareholders' equity
	Net profit margin (NPM)	Net profit ÷ total operating income

Note. DGR and AGR are financial proxies, not direct measures, of strategic and reputation risk management.

3.4 Validity

The researcher enhanced validity by building the extraction sheet directly from the variables and ratios specified in the conceptual framework. The figures came from reports prepared under applicable financial reporting requirements and subjected to independent external audit, and the same ratio formulas were applied consistently across the ten years.

3.5 Reliability

Reliability was supported by using standardised audited statements and annual reports, applying the same extraction procedure and formulas to every annual observation, and reviewing the notes to the accounts to handle differences in classification. Because the data were secondary, no reliability coefficient was computed.

3.6 Data Analysis Plan

The researcher edited the data for completeness and accuracy, coded them by variable, and entered them into SPSS Version 26, with each financial year as one observation. Descriptive analysis summarised the annual trend of the ratios. Pearson correlation assessed the direction and strength of relationships, and multiple regression assessed the effects, using the model $FP = \alpha + \beta_1 CRM + \beta_2 ORM + \beta_3 SRRM + \varepsilon$. Significance was judged at the 5% level ($p < 0.05$), and the regression results were used to test the null hypotheses.

3.7 Data Processing

Editing involved checking the extracted figures for omissions and data-entry errors and confirming that the appropriate figures were taken for each year. Coding assigned variable names and labels to the calculated ratios so that they could be entered into SPSS. In tabulation, the ratios were organised into tables by variable and year, and the correlation and regression tables were generated and interpreted according to the specific objectives and hypotheses.

3.8 Ethical Considerations

The study relied entirely on audited, published financial statements and annual reports, so no human respondents were involved. The researcher acknowledged all sources and analysed the data without altering the figures reported by the bank. The study's limitations are discussed in the Conclusions and Recommendations section.

4. Results and Discussion

The results are presented by specific objective, after a summary of the annual trends in the study indicators and an overview of the correlation and regression results.

4.1 Trends in the Study Indicators, 2016–2025

Tables 2 and 3 show the annual values of the risk management and financial performance indicators.

Table 2: Risk Management Indicators of Bank of Kigali Plc, 2016–2025 (%)

Year	NPLR	LLPR	CIR	OETA	DGR	AGR
2016	5.40	3.0	38.8	4.68	8.9	13.7
2017	6.64	4.8	44.8	5.75	8.6	13.9
2018	5.48	5.4	47.3	5.70	16.9	20.7
2019	6.28	6.6	40.6	4.98	20.8	16.1
2020	7.69	8.2	31.3	3.46	23.0	28.0
2021	7.72	7.7	35.1	3.97	23.2	22.0
2022	6.56	6.6	44.9	4.63	10.3	16.6
2023	4.50	6.9	44.3	4.83	27.8	14.1
2024	4.66	4.5	38.1	3.91	19.5	19.2
2025	3.87	3.8	37.9	3.65	14.8	15.8

Note. Source: audited financial statements and annual reports of Bank of Kigali Plc, 2016–2025. NPLR = non-performing loan ratio; LLPR = loan loss provision ratio; CIR = cost-to-income ratio; OETA = operating expense-to-total assets ratio; DGR = deposit growth rate; AGR = asset growth rate.

Table 3: Financial Performance Indicators of Bank of Kigali Plc, 2016–2025 (%)

Year	ROA	ROE	NPM
2016	4.1	24.2	34.09
2017	3.2	19.0	25.01
2018	3.1	14.1	25.86
2019	3.7	16.9	29.88
2020	3.0	14.9	26.72
2021	3.3	18.2	28.80
2022	3.2	18.7	31.23
2023	3.5	20.4	32.45
2024	3.6	20.8	35.19
2025	3.8	21.0	39.18

Note. Source: audited financial statements and annual reports of Bank of Kigali Plc, 2016–2025. ROA = return on assets; ROE = return on equity; NPM = net profit margin.

4.1.1 Credit Risk Indicators

Credit risk indicators were weakest in the early 2020s and improved afterwards (Table 2). The NPLR rose from 5.40% in 2016 to 6.64% in 2017, eased to 5.48% in 2018, climbed to 7.69% in 2020, and reached its peak of 7.72% in 2021. It then declined to 6.56% in 2022 and 4.50% in 2023, edged up to 4.66% in 2024, and fell to its lowest value of 3.87% in 2025. The LLPR rose steadily from 3.0% in 2016 to a peak of 8.2% in 2020, declined to 6.6% in 2022, rose slightly to 6.9% in 2023, and fell to 3.8% in 2025. Both ratios were lower in 2025 than in 2022, which is consistent with lower credit-loss exposure and a smaller provisioning burden relative to gross loans, and with stronger credit risk management between 2022 and 2025.

4.1.2 Operational Risk Indicators

The CIR rose from 38.8% in 2016 to 44.8% in 2017 and 47.3% in 2018, fell to its lowest value of 31.3% in 2020, climbed again to 44.9% in 2022 and 44.3% in 2023, and then declined to 38.1% in 2024 and 37.9% in 2025. The OETA peaked at 5.75% in 2017, fell to 3.46% in 2020, rose to 4.83% in 2023, and declined to 3.65% in 2025. Operating expenses therefore absorbed a smaller share of income and of total assets towards the end of the period, despite continued expansion of the asset base.

Strategic and Reputation Risk Indicators

DGR and AGR were positive in every year. DGR ranged from 8.6% (2017) to 27.8% (2023) and moderated to 14.8% in 2025, while AGR ranged from 13.7% (2016) to 28.0% (2020) and stood at 15.8% in 2025. This is consistent with continued expansion of the deposit and asset bases and, as proxies, with sustained customer

confidence and strategic expansion, although it is not direct evidence of either.

Financial Performance

Financial performance fluctuated but strengthened in later years (Table 3). ROA fell from 4.1% in 2016 to 3.2% in 2017 and 3.1% in 2018, recovered to 3.7% in 2019, reached a low of 3.0% in 2020, and then improved each year after 2022 to 3.8% in 2025. ROE fell from 24.2% in 2016 to 14.1% in 2018, recovered to 16.9% in 2019, dipped to 14.9% in 2020, and then rose steadily to 21.0% in 2025. NPM dropped from 34.09% in 2016 to 25.01% in 2017 and rose in every year from 26.72% in 2020 to 39.18% in 2025, its highest value. Together, the three indicators show a bank that converted a growing share of its income into profit and used its assets and equity more productively in the later years, although ROA and ROE in 2025 remained below their 2016 levels.

4.2 Correlation and Regression Results

Table 4 presents the Pearson correlations among the three risk management dimensions and financial performance. Table 5 summarises the overall regression model, and Table 6 reports the regression coefficients. Each result is interpreted under the relevant objective below, and the overall model is discussed in the section on the joint effect of the dimensions.

Table 4: Correlation Between Risk Management Dimensions and Financial Performance

Variable	1	2	3	4
1. Credit risk management (CRM)	1			
2. Operational risk management (ORM)	0.286 (0.423)	1		
3. Strategic and reputation risk management (SRRM)	0.605 (0.064)	0.519 (0.125)	1	
4. Financial performance (FP)	0.725* (0.018)	0.176 (0.626)	0.383 (0.275)	1

Note. Cells show Pearson's *r* with the two-tailed *p*-value in parentheses; $N = 10$. *Correlation is significant at the 0.05 level (2-tailed).

Table 5: Regression Model Summary and Analysis of Variance

Source	*SS*	*df*	*MS*	*F*	*p*
Regression	37.46	3	12.487	4.689	0.051
Residual	15.979	6	2.663		
Total	53.439	9			

Note. $R = 0.837$, $R^2 = 0.701$, adjusted $R^2 = 0.551$, standard error of the estimate = 1.63192. Predictors: constant, CRM, ORM, SRRM. Dependent variable: financial performance. *SS* = sum of squares; *MS* = mean square.

Table 6: Regression Coefficients

Predictor	*B*	*SE*	β	*t*	*p*
Constant	36.232	6.633		5.462	0.002
CRM	1.324	0.491	0.756	2.696	0.036
ORM	0.412	0.222	0.484	1.853	0.113
SRRM	0.090	0.160	0.176	0.560	0.595

Note. Dependent variable: financial performance. *B* = unstandardised coefficient; *SE* = standard error; β = standardised coefficient.

Objective 1: Credit Risk Management and Financial Performance

Table 4 shows a strong, positive, and statistically significant correlation between credit risk management and financial performance ($r = 0.725$, $p = 0.018$). The regression results in Table 6 confirm a positive and significant effect ($B = 1.324$, $SE = 0.491$; $\beta = 0.756$, $t = 2.696$, $p = 0.036$). A one standard deviation increase in the credit risk management measure was thus associated with a 0.756 standard deviation increase in financial performance, holding the other dimensions constant. The null hypothesis H_{01} was therefore rejected at the 5% level.

This finding agrees with Olugboyega et al. (2019), who found significant relationships between credit risk

indicators and both ROA and ROE among Nigerian deposit money banks, and with Shibiru and Mebratu (2017), who reported that the non-performing loan ratio, among other indicators, significantly affected the performance of Ethiopian private banks. It also accords with Musyoki and Kadubo (2012), whose Kenyan bank data showed statistically significant effects of credit risk parameters, led by default rate. The result is consistent with Loan Pricing Theory because incorporating borrower risk into lending decisions helps ensure that returns compensate for risks assumed (Rahman et al., 2026). It is also consistent with Financial Distress Theory since poorer credit quality raises a bank's probability of distress (Psillaki et al., 2010). Controlling non-performing loans and provisioning adequately can therefore strengthen performance, as the improvement in both ratios after 2021 suggests.

The descriptive trends point the same way. Between 2021 and 2025, the NPLR fell from 7.72% to 3.87% and the LLPR from 7.7% to 3.8%, while ROE rose from 18.2% to 21.0% and NPM from 28.80% to 39.18% (Tables 2 and 3). This observation concerns co-movement in the data and is not proof of causation, but it is consistent with the significant correlation and regression results. It also suggests that the bank's later gains came alongside a smaller credit-loss burden, since lower non-performing loans and lower provisions leave more operating income to be retained as profit.

Objective 2: Operational Risk Management and Financial Performance

Operational risk management had a weak, positive, and statistically insignificant correlation with financial performance (r = 0.176, p = 0.626; Table 4). In the regression, its effect was positive but insignificant (B = 0.412, SE = 0.222; β = 0.484, t = 1.853, p = 0.113; Table 6), so H_{02} was not rejected at the 5% level. The trend data show a similar co-movement: the CIR fell from 44.9% in 2022 to 37.9% in 2025 while NPM rose from 31.23% to 39.18%, yet the formal test did not establish an independent effect once the other dimensions were controlled.

This result differs from Endaweke (2015), who found that operational risk, measured by the cost-to-income ratio, had a negative and significant effect on the performance of Ethiopian banks. The difference suggests that the link between operational risk management and performance depends on the institution, the period, and the measures used. The finding also does not empirically confirm Risk Management Theory for this dimension (Łuczak, 2025). A likely reason is that operational risk is multidimensional, arising from processes, people, technology, and external events, and cost ratios capture only part of that financial impact (Teplý, 2012).

Objective 3: Strategic and Reputation Risk Management and Financial Performance

Strategic and reputation risk management, represented by DGR and AGR, had a moderate, positive but insignificant correlation with financial performance (r = 0.383, p = 0.275; Table 4). Its regression effect was also positive but insignificant (B = 0.090, SE = 0.160; β = 0.176, t = 0.560, p = 0.595; Table 6), and H_{03} was not rejected at the 5% level.

The positive direction is conceptually consistent with Abuya (2008), who argued that strategic risk management helps organisations deal with uncertainty and build stakeholder value. The lack of significance may partly reflect the proxies used. Reputation is formed through stakeholder assessments, trust, and relationships and is therefore hard to represent fully through financial indicators (Krzakiewicz & Cyfert, 2015). Deposit and asset growth may thus miss non-financial aspects of strategic and reputational risk management, and the result does not empirically confirm Risk Management Theory for this dimension.

4.3 Joint Effect of the Risk Management Dimensions

The model in Table 5 gave R = 0.837 and R^2 = 0.701. After adjustment, the three dimensions together accounted for 55.1% of the variation in financial performance (adjusted R^2 = 0.551), leaving 44.9% to factors outside the model. The ANOVA, however, gave $F(3, 6) = 4.689$ and p = 0.051, which is marginally above the 0.05 threshold, so the overall model was not statistically significant at the 5% level. With only ten annual observations and six residual degrees of freedom, these estimates should be interpreted with caution. Table 7 summarises the hypothesis tests.

Table 7: Summary of Hypothesis Tests

Null hypothesis	β	p	Decision at 5%
H_{01}: CRM has no significant effect on FP	0.756	0.036	Rejected
H_{02}: ORM has no significant effect on FP	0.484	0.113	Not rejected
H_{03}: SRRM has no significant effect on FP	0.176	0.595	Not rejected

Note. Values are taken from Table 6. CRM = credit risk management; ORM = operational risk management; SRRM = strategic and reputation risk management; FP = financial performance.

Of the three dimensions, only credit risk management had an individually significant effect on financial performance. Operational, and strategic and reputation risk management were positively associated with

performance, but in this sample their independent effects could not be distinguished statistically from zero. The practical implication for the bank's management is that credit quality and provisioning showed the clearest link to performance among the dimensions examined.

5. Conclusion and Recommendations

Objective 1: Credit Risk Management

Finding. Credit risk management had a positive and significant relationship with, and effect on, financial performance ($r = 0.725$, $p = 0.018$; $\beta = 0.756$, $p = 0.036$).

Conclusion. Effective credit risk management, particularly control of non-performing loans and maintenance of appropriate loan loss provisions, plays an important role in strengthening the bank's financial performance.

Recommendation. Because the NPLR peaked at 7.72% in 2021 and the LLPR at 8.2% in 2020, Bank of Kigali Plc should keep strengthening borrower creditworthiness assessment, early-warning systems, continuous loan monitoring, portfolio diversification, and timely recovery, and should improve forward-looking expected credit loss forecasting and provisioning.

Objective 2: Operational Risk Management

Finding. Operational risk management had a positive but insignificant effect ($\beta = 0.484$, $p = 0.113$).

Conclusion. Improvements in operational efficiency and cost management were associated with better financial performance, but their independent effect was not statistically significant during 2016–2025.

Recommendation. Given that the CIR reached 47.3% in 2018 and the OETA 5.75% in 2017, the bank should further strengthen operational efficiency and cost control through automation and digitalisation of routine processes, streamlined procedures, stronger internal controls, and continuous monitoring of operating expenses, so that cost growth does not exceed income growth.

Objective 3: Strategic and Reputation Risk Management

Finding. Strategic and reputation risk management, proxied by deposit and asset growth, had a positive but insignificant effect ($\beta = 0.176$, $p = 0.595$).

Conclusion. Growth in deposits and assets was positively associated with financial performance, but there was insufficient evidence that strategic and reputation risk management independently influenced it.

Recommendation. The bank should integrate strategic and reputational risk considerations into its overall risk management and decision-making, regularly assess emerging strategic threats, monitor customer confidence, strengthen stakeholder communication, and review whether deposit and asset growth translate into sustainable profitability.

Overall Financial Performance

Finding. ROA, ROE, and NPM fluctuated between 2016 and 2025 but strengthened in the later years, although ROA (3.8%) and ROE (21.0%) in 2025 remained below their 2016 levels (4.1% and 24.2%).

Conclusion. The bank's profitability and its use of assets and equity improved over the period.

Recommendation. Management should maintain strategies for productive use of assets and equity, including profitable asset allocation, sustainable lending growth, income diversification, and cost efficiency, and should keep monitoring ROA, ROE, and NPM so that expansion of the asset and capital base translates into stronger performance.

Limitations and Further Research

The study was limited to one bank and ten annual observations. Some financial items were classified differently or reported at different levels of detail across the years, which could affect comparability, although the researcher reviewed the notes to the accounts and applied the same definitions and formulas throughout. In addition, strategic and reputation risk management cannot be measured directly from financial statements, so deposit and asset growth served as proxies that may not capture every aspect of that dimension. The findings are therefore interpreted within the scope of the selected financial indicators.

Further studies should use panel data from several Rwandan banks over longer periods, include liquidity, market, interest rate, and capital risk, and combine financial data with primary data from managers, employees, and customers to capture non-financial dimensions such as internal controls, customer trust, and corporate reputation. Such work would show whether the insignificant effects found here arose from the proxies used or reflect the true relationship.

References

Abuya, D. O. (2008). *Strategic risk management practices among state corporations in Kenya*. Doctor of Philosophy Unpublished Thesis, University of Nairobi, Kenya.

Adeusi, S. O., Akeke, N. I., Adebisi, O. S., & Oladunjoye, O. (2014). Risk management and financial performance of banks in Nigeria. *European Journal of Business and Management, 6*(31), 123–129.

Andersen, K., & Terp, A. (2006). Risk management. In T. J. Andersen (Ed.), *Perspectives on strategic risk management* (pp. 27–46). Copenhagen Business School Press.

Arim, A., & Wamema, J. (2022). Towards an improved framework for e-risk management for digital financial services (DFS) in Ugandan banks: A

case of Bank of Africa (Uganda) Limited. *Journal of Information and Organizational Sciences, 46*(1), 103–127. https://doi.org/10.31341/jios.46.1.6

Bhatt, T. K., Ahmed, N., Iqbal, M. B., & Ullah, M. (2023). Examining the determinants of credit risk management and their relationship with the performance of commercial banks in Nepal. *Journal of Risk and Financial Management, 16*(4), Article 235. https://doi.org/10.3390/jrfm16040235

Chimbala, G. (2026). Risk management practices in banking: A case of Zambia National Commercial Bank and First National Bank in Kitwe, Zambia. *Journal of Research Innovation and Implications in Education, 3*(1), 215–224.

Chong, V. S., Lam, J. M., & Tan, S. H. (2019). The relationship of risk management and bank profitability performance between domestic and foreign Islamic banks in Malaysia. *Humanities & Social Sciences Reviews, 7*(6), 411–415. https://doi.org/10.18510/hssr.2019.7666

Endaweke, M. (2015). *Risk management and its impact on performance of commercial banks in Ethiopia*. Master of Accounting and Finance Unpublished Dissertation, Addis Ababa University, Ethiopia.

Flores, F., Bónson-Ponte, E., & Escobar-Rodríguez, T. (2006). Operational risk information system: A challenge for the banking sector. *Journal of Financial Regulation and Compliance, 14*(4), 383–401. https://doi.org/10.1108/13581980610711153

Fraser, J. R., Quail, R., & Simkins, B. (Eds.). (2021). *Enterprise risk management: Today's leading research and best practices for tomorrow's executives*. John Wiley & Sons.

Huang, H. H., Kerstein, J., Wang, C., & Wu, F. (2022). Firm climate risk, risk management, and bank loan financing. *Strategic Management Journal, 43*(13), 2849–2880. https://doi.org/10.1002/smj.3437

Hubbard, D. W. (2020). *The failure of risk management: Why it's broken and how to fix it*. John Wiley & Sons.

Krzakiewicz, K., & Cyfert, S. (2015). Organizational reputation risk management as a component of the dynamic capabilities management process. *Management, 19*(1), 6–18. https://doi.org/10.1515/manment-2015-0001

Lazaro, G., Ngatuni, P., & Manyanda, J. (2025). Assessing the relationship between credit risk indicators and financial performance of Tanzanian commercial banks. *Business Education Journal, 11*(2), 769–781.

Loader, D. (2011). *Operations risk: Managing a key component of operational risk*. Elsevier.

Loosemore, M., Raftery, J., Reilly, C., & Higgon, D. (2012). *Risk management in projects*. Routledge.

Łuczak, P. (2025). Credit risk management in commercial banks. *Przegląd Prawno-Ekonomiczny, 3*(3), 11–21. https://doi.org/10.31743/ppe.18511

Machiraju, H. R. (2008). *Modern commercial banking*. New Age International.

Mukabarisa, Q. P., Aunga, D., & Gitonga, N. (2025). Influence of credit allocation, risk management and loan portfolio management on financial stability of Bank of Kigali, Rwanda. *Journal of African Interdisciplinary Studies, 9*(7), 240–252.

Musyoki, D., & Kadubo, A. S. (2012). The impact of credit risk on the financial performance of banks in Kenya. *International Journal of Business and Public Management, 2*(2), 72–80.

Ogundele, O. S., & Nzama, L. (2025). Risk management practices and financial performance: Analysing credit and liquidity risk management and disclosures by Nigerian banks. *Journal of Risk and Financial Management, 18*(4), Article 198. https://doi.org/10.3390/jrfm18040198

Oludhe, K. (2011). *The effect of credit risk on performance of commercial banks in Kenya*. Master of Business Administration Unpublished Paper, University of Nairobi, Kenya.

Olugboyega, K. S., Babatunji, A. S., Jayeola, O., & Tobi, B. A. (2019). Effect of credit risk management on financial performance of Nigerian listed deposit money banks. *Scholedge International Journal of Business Policy & Governance, 5*(6), 53–62. https://doi.org/10.19085/journal.sijbpg050601

Psillaki, M., Tsolas, I. E., & Margaritis, D. (2010). Evaluation of credit risk based on firm performance. *European Journal of Operational Research, 201*(3), 873–881. https://doi.org/10.1016/j.ejor.2009.03.032

Rahman, A. A., Abadi, I., Lestari, H. S., & Muchtar, S. (2026). Impact of bank risk on bank performance in Indonesian commercial banks: The moderating role of corporate governance. *EKOMBIS Review: Jurnal Ilmiah Ekonomi dan Bisnis, 14*(1), 147–164. https://doi.org/10.37676/ekombis.v14i1.9160

Saeed, M. M., & Donkoh, E. (2026). Credit risk management, bank-specific factors, and financial performance of banks: Insights from an emerging economy. *Social Sciences &*

Humanities Open, 13, Article 102523. https://doi.org/10.1016/j.ssaho.2026.102523

Shibiru, T., & Mebratu, N. (2017). Impact of credit risk on performance of private commercial banks in Ethiopia. *Journal of Economics and Sustainable Development, 8*(15), 47–52.

Teplý, P. (2012). The application of extreme value theory in operational risk. *Ekonomický časopis, 60*(7), 698–716.

Umutesi, S., & Mahazi, K. (2025). Loan portfolio management and financial performance of financial institutions in Rwanda: A case of Access Bank. *Journal of Research Innovation and Implications in Education, 9*(1), 575–584. https://doi.org/10.59765/wzs539

Vasiliev, I., Smelov, P., Klimovskih, N., Shevashkevich, M., & Donskaya, E. (2018). Operational risk management in a commercial bank. *International Journal of Engineering & Technology, 7*(4.36), 524–529. https://doi.org/10.14419/ijet.v7i4.24130

Yahaya, O. A. (2026). The impact of credit risk management on the financial performance and valuation of banks in Nigeria. *International Journal of Accounting, 22*(2), 110–138.