



STRATEGIC RISK MANAGEMENT AND PERFORMANCE OF PUBLIC INSTITUTIONS: A CASE OF KICUKIRO DISTRICT, RWANDA

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Abstract

Inconsistent strategic planning, limited stakeholder coordination, and weak integration of risk management practices remained key factors affecting operational outcomes. These issues were compounded by inadequate monitoring mechanisms and poor execution of performance contracts, which are expected to hinder long-term sustainability and citizen satisfaction. The general objective of this study is to assess the effect of strategic risk management on performance of public institution of Kicukiro District, Rwanda. The study was surveyed using a mixed-method approach that combines structured questionnaire with interview guide. Statistical Package for the Social Sciences (SPSS) version 25 was used to create descriptive and inferential statistics, as well as regression and correlation models, for the data analysis. Strategic Risk Identification has a positive and significant effect with an unstandardized coefficient $B = 0.273$, $t = 6.069$, and $p < 0.05$. This indicates that for every unit increase in strategic risk identification, performance increases by 0.273 units, holding other variables constant. Strategic Risk Assessment has the strongest individual effect with $B = 0.487$, $t = 10.344$, and $p < 0.05$, suggesting that improvements in risk assessment processes contribute significantly to institutional performance. Strategic Risk Mitigation also significantly affects performance, with $B = 0.220$, $t = 5.298$, and $p < 0.05$, showing that mitigation strategies are essential but comparatively less impactful than risk assessment. All three variables are statistically significant at 0.05, providing strong evidence to reject the null hypotheses (H_{01} , H_{02} , H_{03}) and confirm that each strategic risk management component positively

influences the performance of public institutions in Kicukiro District. Public institutions in Kicukiro District should strengthen their strategic risk identification processes by institutionalizing tools such as risk checklists, risk registers, and early warning systems to improve proactive threat detection.

Keywords: Strategic Risk Management, Performance of Public Institution, Strategic Risk Identification, Strategic Risk Assessment, Strategic Risk Mitigation

INTRODUCTION

Comparative studies between Rwanda's public and private institutions regarding risk management's performance impact remain limited. Research in private construction and insurance firms addresses strategic planning, but rarely examines public institutional risk frameworks. Consequently, public institutions lack tailored data to benchmark against private sector performance outcomes (Mugwaneza, 2024).

Rwanda has instituted several strategic reforms aimed at enhancing accountability and organizational performance within its public institutions. One of these reforms includes the integration of internal audit and risk management units within government ministries and agencies. The Office of the Auditor General (OAG) continues to report recurring financial mismanagement, delayed project execution, and underperformance, often due to weak risk anticipation and mitigation (OAG, 2023).

According to the Rwanda Governance Board (2022), while public service delivery indicators have improved in sectors like health and education, performance outcomes in infrastructure and agriculture remain inconsistent. This variability is partly attributed to institutional weaknesses in managing external and operational risks such as procurement delays, budget execution failures, and human capacity gaps.

The purpose of this study is to assess the effect of strategic risk management on performance of public institutions of Kicukiro District.

LITERATURE REVIEW

Theoretical Framework

Enterprise Risk Management (ERM), Resource-Based View (RBV), and Stakeholder Theory are the three interconnected theoretical frameworks that support this study. These frameworks collectively support the analysis of structured risk identification, internal evaluation capabilities, and coordinated governance mechanisms as determinants of organizational performance in cooperative environments.

Enterprise Risk Management Theory

Scholars and practitioners began to formulate Enterprise Risk Management (ERM) theory in 1992 in response to mounting concerns regarding the shortcomings of conventional risk management methods that concentrated on individual financial exposures. The concept gained significant momentum between 1998 and 2009, driven by a series of major corporate failures that exposed the need for integrated risk oversight. Widely used frameworks such as COSO in 2017 and ISO 31000 in 2018 officially defined ERM as a strategy for detecting, analyzing, and managing risks in enterprises (Crawford & Jabbour, 2024).

The impact of uncertainty on goals is what ERM theory calls risk, and the theory advocates for a unified approach in the areas of strategy, operations, finance, and compliance. It incorporates principles such as risk appetite, risk culture, and continuous monitoring. Recent studies emphasize ERM's role in enhancing organizational resilience, especially in volatile environments (Jaber & Shah, 2024). The theory has expanded through empirical research linking ERM maturity to performance outcomes, including return on assets, operational continuity, and stakeholder confidence (Kanu, 2021). ERM is increasingly applied in SMEs and public sector institutions, where resource constraints and governance complexity require integrated risk responses. Bibliometric analyses confirm four dominant research streams: ERM adoption, implementation determinants, performance effects, and institutional factors (Anton & Nucu, 2020). ERM theory supports strategic alignment through structured risk identification, assessment, and mitigation processes. It continues to evolve through interdisciplinary contributions from accounting, public administration, and behavioral sciences.

To further understand how structured risk identification helps improve performance in Kicukiro District, this study applied the theory of Enterprise Risk Management. To assess how risk identification impacts organizational performance, it is necessary to analyze early detection systems, coordinated planning, and strategic alignment; these are all pillars of the theory.

Resource-Based View Theory

First proposed in the 1980s by Birger Wernerfelt and later defined in Barney's landmark work on firm-level competitive advantage, the Resource-Based View (RBV) thesis has been a staple of strategic management literature since its inception. Although it was first recognized within the field of strategic management, RBV has since gained widespread application across various disciplines concerned with organizational performance and competitiveness (Barney, Ketchen, & Wright, 2025).

Important, scarce, unique, and non-replaceable strategic assets are what it calls resources. By highlighting internal capabilities as the foundation for long-term success, RBV

questions the validity of market-based models that rely on external factors. Over time, RBV has expanded through dynamic capabilities, knowledge-based extensions, and resource orchestration frameworks. Recent bibliometric studies confirm RBV's continued relevance across disciplines, including international business, entrepreneurship, and organizational design (Ferreira & Ferreira, 2025). The theory supports strategic planning through resource audits, capability mapping, and investment prioritization. It is increasingly applied in cooperative and development contexts, where resource pooling and member competencies are central to performance. Empirical research confirms that internal systems such as audit mechanisms, financial controls, and human capital development contribute to operational efficiency and strategic alignment (Beamish & Chakravarty, 2021). RBV remains a dominant framework for analyzing how organizations leverage internal strengths to navigate uncertainty and achieve long-term goals. It continues to inform research on innovation, resilience, and governance effectiveness.

This research aims to analyze the relationship between internal assessment capabilities and performance in Kicukiro District using the Resource-Based View paradigm. To comprehend how risk assessment impacts organizational performance in limited institutional settings, it is essential to analyze diagnostic systems, resource allocation, and operational routines; these aspects are made possible by the theory.

Stakeholder Theory

Stakeholder Theory originated in the 1984 through Freeman's work, which reconceptualized the firm as a network of relationships among individuals and groups with legitimate interests in its activities. It challenged shareholder-centric models and introduced ethical and strategic dimensions to organizational governance. The theory emphasizes cooperation, fairness, and accountability in managing stakeholder relationships. Recent literature identifies three dominant streams: behavioral stakeholder theory, stakeholder governance, and stakeholder strategy (Bridoux & Stoelhorst, 2022). These developments reflect the theory's expansion into organizational design, value creation, and public sector reform. Stakeholder Theory recognizes employees, suppliers, regulators, and communities as integral to performance. It supports inclusive decision-making, conflict resolution, and long-term engagement. Empirical studies confirm that stakeholder coordination improves transparency, strategic alignment, and operational outcomes, particularly in cooperative settings (Keremidchiev, 2021). The theory continues to inform research on sustainability, corporate social responsibility, and participatory governance. It remains influential in shaping policy frameworks and institutional reforms aimed at

balancing stakeholder interests. Stakeholder mapping, engagement protocols, and performance metrics are key tools derived from the theory.

This study used the Stakeholder theory to examine how coordinated governance mechanisms affect performance outcomes in Kicukiro District. Analyzing the impact of risk mitigation on organizational performance in cooperative environments is facilitated by the theory's framework for evaluating stakeholder relationships, accountability frameworks, and participatory decision-making.

METHODOLOGY

This study employed a descriptive correlational research design. Its primary goal is to provide insights into the depth and diversity of strategic risk management approaches implemented across various departments within the Kicukiro District. There was also a correlational comparison of performance indicators with risk management aspects including risk identification, risk assessment, and mitigation methods.

The data was entered, cleaned, and analyzed using SPSS version 25.0. Participants were asked to score the statements using a five-point Likert scale, where 1 indicates Strongly Disagree and 5 indicates Strongly Agree. The average results were understood in this way: The intensity levels may be found in the following ranges: From 1.0 to 1.8, low; from 1.9 to 2.6, neutral; from 2.7 to 3.4, high; from 3.5 to 4.2, and very high; from 4.3 to 5.0.

Examining the standard deviation figures allowed us to ascertain whether the data is uniform. According to Rahman (2022), homogeneity is defined as a value below 0.5, and heterogeneity as a number beyond 0.5.

The components of strategic risk management were evaluated for their influence on organizational performance using a linear regression model. Here is the final product:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \epsilon$$

Where:

Y = Organizational Performance

X_1 = Strategic Risk Identification

X_2 = Strategic Risk Assessment

X_3 = Strategic Risk Mitigation

β_0 = Intercept

$\beta_1, \beta_2, \beta_3$ = Coefficients of independent variables

ϵ = Error term

This model helped determine the predictive power of each strategic risk management component and its contribution to performance outcomes in Kicukiro District.

FINDINGS & DISCUSSIONS

This section presents and discusses the findings of the study, which aimed to assess the effect of strategic risk management on the performance of public institutions in Kicukiro District. The analysis is structured around the specific objectives of the study: strategic risk identification, risk assessment, and risk mitigation. The findings are based on data collected from key respondents using structured questionnaires.

Response rate

Table 1 outlines the number of questionnaires that were distributed, the number successfully filled and returned, and those that were not returned. It provides an overview of the participation level of the targeted respondents in the study.

Table 1: Response Rate of the Study

Response Category	Frequency	Percentage
Filled	173	95.10
Unreturned	9	4.90
Total	182	100

Table 1 presents the response rate of the study, showing that out of 182 distributed questionnaires, 173 were completed and returned, while 9 were not returned. This results in a high response rate of 95.10%, which is considered excellent for academic research and strengthens the reliability of the findings. The small proportion of unreturned questionnaires (4.90%) does not significantly affect the overall validity of the data. Therefore, the data collected can be deemed representative of the target population.

Inferential Statistics

This section presents the inferential statistical analysis used to examine the relationship between strategic risk management components and the performance of public institutions in Kicukiro District. Techniques such as correlation and regression analysis were employed to determine the strength and significance of these relationships. The findings provide insights beyond descriptive statistics by testing the hypotheses and supporting conclusions about the effect of strategic risk management on organizational performance.

Table 2: Correlations

		Strategic Risk Identification	Strategic Risk Assessment	Strategic Risk Mitigation	Performance of public institutions
Strategic Risk Identification	Pearson Correlation	1	.583**	.670**	.746**
	Sig. (2-tailed)		.000	.000	.000
	N	173	173	173	173
Strategic Risk Assessment	Pearson Correlation	.583**	1	.623**	.809**
	Sig. (2-tailed)	.000		.000	.000
	N	173	173	173	173
Strategic Risk Mitigation	Pearson Correlation	.670**	.623**	1	.756**
	Sig. (2-tailed)	.000	.000		.000
	N	173	173	173	173
Performance of public institutions	Pearson Correlation	.746**	.809**	.756**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	173	173	173	173

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

Table 2 provides Pearson correlation coefficients between the independent variables strategic risk identification, strategic risk assessment, and strategic risk mitigation and the dependent variable, performance of public institutions. The results show that strategic risk identification has a strong positive correlation with performance ($r = .746$, $p < 0.05$), indicating that improvements in risk identification are associated with higher institutional performance. Strategic risk assessment shows the strongest correlation with performance ($r = .809$, $p < 0.05$), suggesting that when risks are thoroughly analyzed and prioritized, public institutions perform more effectively. Similarly, strategic risk mitigation is significantly and positively correlated with performance ($r = .756$, $p < 0.05$), meaning institutions that implement mitigation strategies are likely to experience better outcomes. Since all correlation coefficients are above 0.70 and statistically significant at the 0.05, this provides preliminary evidence that each risk management component plays an important role in enhancing organizational performance in Kicukiro District.

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.895 ^a	.801	.798	.17656

a. Predictors: (Constant), Strategic Risk Mitigation, Strategic Risk Assessment, Strategic Risk Identification

Table 3 presents the model summary of the regression analysis that tested the combined effect of all three strategic risk management variables on performance. The model yields an R value of 0.895, indicating a very strong correlation between the observed and predicted values of institutional performance. The R Square value of 0.801 means that approximately 80.1% of the variation in performance is explained by the combined effects of strategic risk identification, risk assessment, and risk mitigation. This is a very high explanatory power for a social science model, suggesting the three predictors are robust in explaining performance variations in Kicukiro District.

Table 4: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.229	3	7.076	227.000	.000 ^b
	Residual	5.268	169	.031		
	Total	26.498	172			

a. Dependent Variable: Performance of public institutions

b. Predictors: (Constant), Strategic Risk Mitigation, Strategic Risk Assessment, Strategic Risk Identification

Table 4 shows the ANOVA (Analysis of Variance) results, which test whether the overall regression model is statistically significant. The F-statistic is 227.000, with a p-value of .000, which is well below the standard threshold of 0.05. This means the model significantly predicts the dependent variable, confirming that the combination of strategic risk identification, assessment, and mitigation has a statistically significant impact on the performance of public institutions. The significance of this model supports rejecting the null hypothesis that there is no relationship between the independent and dependent variables.

Table 5: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	.101	.164		.617	.538
	Strategic Risk Identification	.273	.045	.293	6.069	.000
	Strategic Risk Assessment	.487	.047	.473	10.344	.000
	Strategic Risk Mitigation	.220	.042	.265	5.298	.000

a. Dependent Variable: Performance of public institutions

Table 5 displays the regression coefficients that explain how each independent variable individually influences the performance of public institutions. Strategic Risk Identification has a

positive and significant effect with an unstandardized coefficient $B = 0.273$, $t = 6.069$, and $p < 0.05$. This indicates that for every unit increase in strategic risk identification, performance increases by 0.273 units, holding other variables constant. Strategic Risk Assessment has the strongest individual effect with $B = 0.487$, $t = 10.344$, and $p < 0.05$, suggesting that improvements in risk assessment processes contribute significantly to institutional performance. Strategic Risk Mitigation also significantly affects performance, with $B = 0.220$, $t = 5.298$, and $p < 0.05$, showing that mitigation strategies are essential but comparatively less impactful than risk assessment.

All three variables are statistically significant at 0.05, providing strong evidence to reject the null hypotheses (H_{01} , H_{02} , H_{03}) and confirm that each strategic risk management component positively influences the performance of public institutions in Kicukiro District.

Discussion of Findings

The findings of this study reveal that strategic risk management significantly influences the performance of public institutions in Kicukiro District. Specifically, the study examined three dimensions of strategic risk management risk identification, risk assessment, and risk mitigation and their respective effects on institutional performance. The discussion below reflects on each objective in relation to the data collected and the hypotheses tested.

Discussion on strategic risk identification and performance of public institutions

The findings of this study demonstrate that strategic risk identification significantly influences the performance of public institutions in Kicukiro District, as evidenced by a strong positive correlation ($r = 0.746$) and a statistically significant regression coefficient ($\beta = 0.273$, $p < 0.05$). These results are consistent with Alaeddin et al. (2021), who found that structured risk identification practices in UAE SMEs improved operational efficiency and financial stability ($\beta = 0.242$, $p < 0.05$). Similarly, Wojtyto et al. (2021) confirmed that structured identification reduced disruption frequency and enhanced cost management in Polish enterprises. Moreover, Santigie Kanu (2021) found that risk identification processes enhance decision-making and reduce information asymmetry, which aligns with the positive impact observed in Kicukiro District. The high performance outcomes associated with risk registers, checklists, and early detection methods support Uwitonze and Njenga's (2024) conclusion that strategic identification contributes to institutional resilience an indirect but credible indicator of long-term performance. These parallels suggest that embedding identification mechanisms into public governance structures yields tangible benefits in both private and public sectors.

Discussion on strategic risk assessment and performance of public institutions

The study found that strategic risk assessment has the strongest effect on performance among the three components, with a correlation of $r = .809$ and a regression coefficient of $\beta = 0.487$, $p < 0.05$. This aligns closely with findings by Sinha (2024), who reported a pooled effect size of $r = 0.58$ across multiple studies, showing that risk assessment positively influences business outcomes. The use of impact analysis, prioritization, and ranking in Kicukiro mirrors techniques highlighted in previous studies that improve decision-making and operational efficiency. For example, Ogalo (2021) observed a significant influence of enterprise risk assessment in the banking sector ($\beta = 0.41$, $p < 0.05$), and Dzah (2022) found that structured assessment enhances continuity and stakeholder confidence in SMEs ($\beta = 0.37$, $p < 0.05$). The consistency of these results across contexts suggests that effective risk assessment allows organizations to proactively manage threats and allocate resources efficiently thus improving performance. This reinforces the value of institutionalizing risk assessment frameworks in public institutions.

Discussion on strategic risk mitigation and performance of public institutions

Strategic risk mitigation also had a statistically significant effect on performance in Kicukiro District ($r = .756$, $\beta = 0.220$, $p < 0.05$), confirming that mitigation strategies contribute meaningfully to institutional outcomes. These findings align with Alawneh et al. (2022), who found that structured mitigation practices (e.g., contingency planning, supplier diversity) in Jordanian manufacturing firms led to greater operational continuity and financial stability ($\beta = 0.44$, $p < 0.05$). Similarly, Mwangi and Kihara (2023) demonstrated that cooperatives with formal mitigation frameworks experienced greater revenue stability and member satisfaction ($\beta = 0.38$, $p < 0.05$). Kwarteng et al. (2023) also reported a significant impact of mitigation ($\beta = 0.42$, $p < 0.05$) on performance in Ghanaian SMEs. The common thread across these studies is that strategic mitigation through internal audits, emergency planning, and insurance reduces exposure to risk and improves preparedness. The findings in Kicukiro validate these conclusions, emphasizing the importance of institutionalizing risk mitigation practices to maintain continuity, service quality, and public trust.

CONCLUSIONS & RECOMMENDATIONS

The study concludes that strategic risk identification contributes significantly to the performance of public institutions in Kicukiro District. Structured practices such as risk scanning, logging, and the use of checklists enhance the ability of institutions to detect potential threats early and respond appropriately. The statistical evidence confirmed a strong and positive

relationship between risk identification and performance, supporting the rejection of the first null hypothesis. Therefore, public institutions that implement systematic identification mechanisms are more likely to improve decision-making and operational stability.

It is concluded that strategic risk assessment is the most influential factor affecting institutional performance in Kicukiro District. The use of impact analysis, prioritization, and ranking methods supports effective resource allocation and enhances planning accuracy. The results showed the highest statistical impact among the three variables, confirming the second null hypothesis was invalid. Consequently, risk assessment stands as a core strategic activity for improving performance and managing uncertainties in public institutions.

The findings lead to the conclusion that strategic risk mitigation plays a significant role in enhancing institutional performance. Practices such as control implementation, preventive planning, and monitoring contribute to reducing exposure to risks and sustaining service delivery. The statistical evidence supported a meaningful effect, leading to the rejection of the third null hypothesis. Therefore, public institutions that adopt structured mitigation strategies are better equipped to maintain operational resilience and meet performance targets.

The study recommends that the public institutions in Kicukiro District should strengthen their strategic risk identification processes by institutionalizing tools such as risk checklists, risk registers, and early warning systems to improve proactive threat detection.

Further, regular training should be provided to staff on how to conduct impact assessments and prioritize risks based on likelihood and severity.

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