

Risk Management Strategies, Information Sharing and Performance of Public Universities in Kenya

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Abstract: Risk encompasses any factor potentially hindering the attainment of objectives in universities. As key educational institutions, public universities in Kenya face a range of risks that influence their overall performance and sustainability. Specifically, it assesses the impact of integrated risk management, relationship risk management, proactive risk management, and internal risk control strategies on university performance. Additionally, the study examines the moderating role of information sharing in strengthening the relationship between these risk management strategies and performance outcomes. The research is anchored on two theories: Enterprise Risk management Theory and Financial Risk Theory. A systematic research design was adopted. Primary data were collected using semi-structured questionnaires administered to 200 University Management officials, including Deputy Vice-Chancellors and Directors from Finance, Academics, HRM, and Quality Assurance departments across 10 public universities in Kenya. Secondary data on performance indicators, such as student retention, research excellence, staff retention, and revenue generation, were obtained from University Annual reports covering 2019 to 2023. Data was analyzed using descriptive and inferential statistics with SPSS. A valid response rate of 81.5% (n=163) was obtained. Descriptive findings revealed that proactive risk management scored the highest average (M=3.66), followed by internal risk management (M=3.81), relationship risk management (M=3.76), integrated risk management (M=3.87), and information sharing (M=4.12). This implies that while Kenyan public universities have robust information-sharing mechanisms and a relatively strong foundation in integrated and internal risk management, the comparatively lower score for proactive risk management suggests a potential strategic vulnerability, indicating that risk practices may be more reactive than forward-looking. Correlation analysis showed strong positive relationships between proactive risk management and university performance ($r=0.863$, $p<0.01$), as well as between internal risk control ($r=0.817$, $p<0.01$) and performance. Regression analysis indicated that these strategies jointly explained 86.2% of the variance in performance ($R^2=0.862$). Proactive risk management ($\beta=0.400$, $p=0.000$) emerged as the most influential predictor, while moderated regression revealed that information sharing significantly enhanced this relationship, increasing explained variance to 87.8% ($R^2=0.878$). The study concluded that robust risk management frameworks, reinforced by timely and structured information sharing, are pivotal to enhancing performance in Kenya's public universities. It recommended that university leadership embed proactive risk practices and institutionalize information sharing to bolster resilience and sustain institutional competitiveness.

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I. INTRODUCTION

➤ Background to the Study

Risk management strategies are usually the backbone of organizations, given the inevitability of risks and threats. Organizations, irrespective of their sector, consistently confront risks originating from operational, financial, and strategic compliance environments (Botha, 2019). Each operational activity within an organization requires careful assessment and management of risks that may impede the achievement of performance and strategic goals. As Siddiq (2022) observes, higher education institutions (HEIs) are also vulnerable to various disruptions and face growing pressure

from government bodies, the public, and their internal communities to manage these risks effectively. Traditionally, HEIs have delegated risk management responsibilities to individual units within the institution (Smith, 2021). Yet this decentralized approach often proves inadequate as a unified means of managing risks institution-wide.

White and Robinson (2020) argue that the absence of a cohesive risk management plan results in inconsistent risk tolerance, inefficient allocation of resources for risk mitigation, and insufficient insight into how risks affect the HEI's performance targets. Power (2007) adds that the field of risk management has largely overlooked the potential of

knowledge management capabilities to enhance risk management strategies.

Universities, engaged in work-integrated learning, expose themselves to diverse workplace settings, leading to a spectrum of risks that vary across different disciplines, departments, and contexts. According to Cameron (2017), the nature of work-integrated learning introduces unique risks to universities. From the perspective of higher learning institutions, risk encompasses any factors potentially hindering the attainment of objectives for students, partner enterprises, and the university itself (Fleming & Hay, 2021). Since it is impractical to eliminate all risks linked to work-integrated learning environments, HEIs must address these risks adequately to comply with legal and regulatory obligations. A comprehensive understanding of the scope, likelihood, and type of risks faced by universities is essential to enable staff to devise institutional risk management frameworks and prepare necessary resources to mitigate risks for students and the institution (Effeney, 2020).

Operational risks exist as problems that interfere with institutional operations and stakeholder activities which may prevent them from achieving their objectives (Minton & Birks, 2019). Risk Management Strategies are the planned structures, in specially organized entity like individuals and organizations to recognize, identify, scrutinize, assess, mitigate and respond to any form of risks or threats for adequate achievement of the stipulated goals and objectives. These risks could be avoidable, accepted or mitigated depending on its source, how and when they surface in the organization. Usually, when proactive measures are taken, there is tendency of managing or avoiding the risks or threats entirely, based on the strategies or the professionalism of the people involved (Minton & Birks, 2019).

Additionally, higher learning institutions may face reputation risks, which affect their image, brand, or public perception (Cameron, 2016), as well as the host organizations and specific WIL programs in which students participate.

Risk management within WIL contexts remains a critical concern for universities, given their strategic importance. Risk transfer, or the delegation of responsibility via insurance, waivers, and contracts, contradicts the shared responsibility model (Moloi, 2016). The multitude of risks faced by universities worldwide has underscored the need for deploying risk management strategies to reduce, monitor, control, and limit the probability or impact of disruptions (Aven, 2016). As Hopkin (2018) notes, effective implementation of a risk management strategy can maximize the benefits of managing risk while minimizing associated losses.

Risk Management Strategies in universities are very important in the university settings. They assist to leverage accountability of the set goals and education objectives (Hopkin, 2018). He also explained further that financial, education and human prospected accountability can be achieved when appropriate strategy is adopted to adequately manage the threat control. In this case, according to him, the

problems could be government funding system, procurement of university items for educational purposes, or even political intervention from the government of the day. Hopkin, (2018), then suggested that in such an enterprise risks management, the university governing council should use the ERM, to effectively tackle the imposing threat or the institutional risks, especially as it affects the finance and other pertinent areas of the institution. The measures should be saddled towards adequate financing, good government intervention, without political biases, good use of modern Information, Communication and Technology (ICT) cyber-security approaches (Hopkin, 2018).

This global shift is reflected in the adoption of structured frameworks and international standards such as Enterprise Risk Management (ERM) and ISO 31000. These frameworks encourage a holistic, integrated approach that aligns risk management with institutional vision and objectives. Illustrating this trend, Sonia et al. (2021) conducted a study applying ISO 9001:2015 Quality Management Standards at Mehran University of Engineering and Technology in Pakistan. Although focused on a single institution, the research revealed a spectrum of internal and external challenges affecting both academic and administrative functions. These findings resonate with the global experience, demonstrating how standardized management systems can help universities diagnose vulnerabilities, improve processes, and safeguard their core missions against an array of contemporary risks.

Given that a well-defined risk management framework is required for accreditation purposes, Ahmad et al. (2016) explored the existence of formal risk management systems in Malaysian public universities.

The University Good Governance Index (UGGI), established in 2011, mandates that Malaysian public universities adopt structured risk management practices. In the United States, universities encounter various risks that disrupt their standard operations. A survey by North Carolina State University and Protiviti (2015) revealed that top university administrators perceive regulatory shifts, economic conditions, political changes, financial stability, enrollment patterns, information technology infrastructure, talent acquisition and retention, regulatory adherence, and institutional reputation as major concerns (Abraham, 2013). Consequently, higher education institutions are increasingly relying on risk management strategies to navigate these risks and respond to the demands of external stakeholders, with the goal of ensuring they achieve their set performance objectives.

Private universities in Ghana, although smaller in scale, have demonstrated more stable financial performance due to their reliance on tuition fees and targeted programme offerings. However, their vulnerability to enrolment volatility remains high, particularly during periods of economic slowdown. Kong et al. (2023) indicate that Ghana's public sector risk management aligns with the COSO framework, emphasizing internal controls, ethical commitment, and communication structures. These measures have helped

reduce financial irregularities and governance risks, yet performance challenges persist in areas such as graduate employability, research output, and institutional sustainability. Also, the use of Auditor Generals, even in Nigeria, has made use of the risks management effective, as well as ad-hock responses, which have assisted many universities to achieve their set goals and objectives (Kong et al., 2023).

- *Performance of Universities in Kenya*

Kenya's higher education sector has undergone rapid expansion over the last two decades, positioning the country as one of the fastest-growing university systems in East Africa. The number of chartered public universities increased from 7 in 2000 to 38 by 2020, alongside five constituent colleges, while private universities grew to 18 chartered institutions with additional colleges and institutions holding interim authority (CUE, 2020). Student enrolment rose from approximately 324,000 in 2013/2014 to 546,699 in 2020/2021, and further to 562,066 in 2021/2022, with projections exceeding 600,000 by 2022/2023.

This steady upward trend reflects expanded access but also exposes public universities to escalating financial, infrastructural, and operational risks.

Public universities in Kenya have experienced declining financial performance over time, largely due to reduced government capitation per student, delayed disbursement of funds, and rising wage bills. OECD (2021) reports that the academic staff-to-student ratio deteriorated to approximately 1:30, compared to the recommended range of 1:18 to 1:10, negatively affecting teaching quality, supervision capacity, and research productivity. Over the past five years, several public universities have accumulated significant debt, delayed staff salaries, and deferred maintenance of facilities, indicating weakening financial sustainability. These trends suggest that growth in enrolment has not translated into proportional improvements in performance outcomes.

Kenyan perspectives of risks management strategies view this as a shift from historical reactive perspectives to a real proactive collaborative and specific area framework, as researched from Kenyatta University and University of Nairobi by Kinyanjui (2019). He categorized this into four (4) thematic sectors. The first is Kenyan Vision 2030. This involves the country putting the government regulations through its performances in public sector. It is a measure by the Kenyan government to use adequate regulations, through the National Disaster Risks Management Strategies from 2025 to 2030. This government performance sometime hinders the smooth running of the universities system, which constitutes risks and threats. Also, The Commission for University Education (CUE) in Kenya, through the ERM, has effectively used Public Finance Management (PFM) system to mitigate risks in universities. National Treasury Directive, with the 3/2009 Treasury Circular, played very significant role in the risks management in Kenyan universities. The Treasury used Internal Risks Management Policy Framework (IRMPF) in 2024 to implement the regulations that assisted

in risks reduction in various forms. Apart from that, the government of Kenya used the Nwongozo Code to instruct the university Councils and Vice Chancellors to be responsible for any lapses that emanate from risks that could be avoided (Kinyanjui, 2019).

- *Information Sharing*

At the global level, information sharing in universities is much on leveraging academic information openness in collaboration with integrated educational tenets, data information dissemination, which are usually in form of staff, students, infrastructures, administration and virtually every education details that can be revealed officially. Technological integration and structured, but transferable and relevant information for socioeconomic and educational growth at global, and even regional cohesion and development through collaboration (Dubey et al., 2019). They also viewed the information sharing from framework perspectives, using Findable, Accessible, Interpretable and Reusable (FAIR) acronym to show that the information should be Findable, meaning that it can easily be searched for, and seen.

- *Performance of Public Universities*

The standards of global excellence models derived from established quality benchmarks together with performance metrics. The Malcolm Baldrige model created by the U.S. National Institute of Standards and Technology (NIST, 2014) delivers a comprehensive performance standard to assess outcomes which breaks down into specific sub-criteria. This model systematically emphasizes all key outcomes essential to the stability of educational organizations, including student learning achievements, operational results, stakeholder satisfaction, workforce engagement, leadership effectiveness, governance, and financial and market performance. The five sub-criteria cover areas such as learning outcomes and processes, stakeholder focus, workforce engagement, governance and leadership outcomes, and results related to budgeting, finances, and market positioning. Institutional performance reflects the results achieved by management in leveraging organizational assets effectively over a set timeframe (Rudianto, 2023).

On the global performance of universities, the perspective views it as a shift in institutional system from traditional un-prestigious metrics to socioeconomic, regional, impactful, students-oriented and technological inclined arena for self and community development using research works from universities cross border and quality educational strategy. The performance can be a ranking perspective usually, the "Big 3" is used. The internal and external influence of the university through Quality Students World University (QSWU) ranking and Academic Ranking of World Universities (ARWU) using academic reputation, which should be felt at global level, internalization, using the international students integration through students and knowledge or skill exchange programs, lecture-student ratio, which is expected to be 1:40 and citation impact of the academic works carried out by students, lecturers and general academia of the university (Salmi, 2020).

Kenya's higher education sector has expanded significantly over the past few decades, driven by increasing demand for university education and government policies promoting access to tertiary learning (Commission for University Education [CUE], 2021). As of 2023, Kenya had public and private universities, categorized into fully chartered universities, constituent colleges, and registered institutions (Ministry of Education, 2023). Public universities, which receive government funding, account for the largest student enrollment, while private universities supplement demand by offering specialized programs and alternative learning models (CUE, 2021). Despite the sector's expansion, universities in Kenya face challenges such as funding constraints, governance issues, and infrastructure limitations, which directly impact their performance and sustainability (Wanjohi, 2020).

➤ *Statement of the Problem*

Over the past decade, the performance of universities in Kenya has shown worrying deterioration, particularly within public institutions. Empirical data indicate that only 35 percent of students expressed satisfaction with the quality of services in 2022, reflecting declining effectiveness in teaching, administration, and student support systems (CUE, 2022).

At the same time, enrolment in public universities increased steadily, while infrastructure, staffing, and funding failed to expand proportionately, resulting in overcrowded lecture halls, limited academic supervision, and weakened student engagement.

These divergent performance trends underscore a systemic challenge in public universities, where expansion has outpaced institutional capacity, thereby heightening exposure to operational, financial, and reputational risks.

Financial performance indicators further reveal deepening vulnerability within public universities. During the 2021/2022 financial year, Kenyan public universities recorded cumulative budget deficits amounting to KShs.6.2 billion, with some institutions receiving only 60 percent of their expected government capitation (Bailey et al., 2022). This funding shortfall has led to delayed salaries, stalled development projects, and reduced academic resources, directly undermining institutional performance. Moi University, for instance, experienced a 30 percent academic staff deficit in 2021, impairing teaching quality and research output (Kinya & Muthee, 2022). By 2025, the institution was forced into major staff redundancies affecting approximately 900 employees due to declining enrolment and unsustainable wage bills, illustrating the cumulative effect of unmanaged financial and operational risks. Despite these persistent challenges, existing empirical studies in Kenya and the region have largely examined risk management in isolation, often using generic frameworks that do not adequately capture the complex governance, academic, and stakeholder dynamics of universities (Manola & Haller, 2022; Mutisya, 2020). Moreover, limited attention has been paid to the role of information sharing as a complementary mechanism through which risk management strategies translate into improved

performance. Smith (2020) reported that reduced research funding has led to declining research output in over 70 percent of surveyed institutions, yet few studies interrogate how internal communication and information flow moderate this relationship. Consequently, there is a clear knowledge gap regarding the joint influence of risk management strategies and information sharing on university performance, particularly within public universities in Kenya. This study therefore sought to address this gap by empirically examining how risk management strategies and information sharing interact to shape performance outcomes in public universities, providing evidence-based insights to guide policy and institutional reforms.

➤ *Research Objectives*

The study was guided by the following specific objectives;

- To determine the effect of integrated risk management strategies on performance of public universities in Kenya.
- To establish the effect of relationship risk management strategies on performance of public universities in Kenya.

➤ *Research Hypothesis*

The study tested the following hypotheses;

- Ho1: Integrated risk management strategy has no statistically significant effect on performance of public universities in Kenya
- Ho2: Relationship risk management strategy has no statistically significant effect on performance of public universities in Kenya

➤ *Scope of the Study*

This study is confined to chartered public universities in Kenya, as accredited by the Commission for University Education. Public universities are heavily dependent on government capitation, are subject to complex bureaucratic controls, and face persistent financial and governance challenges, making them uniquely exposed to institutional risks. Limiting the scope to public universities therefore enhances conceptual clarity and ensures that findings are directly relevant to the segment of the higher education sector that is most vulnerable to performance-related risks.

Geographically, the study covered public universities across Kenya, with empirical data drawn from ten (10) strategically selected public universities. These institutions were selected to reflect diversity in age, size, geographical location, and institutional complexity, including old established universities, mid-generation universities, and newly chartered universities.

➤ *Conceptual Framework*

In this study, a conceptual framework is developed to illustrate the interaction between risk management strategies, information sharing, and performance of public universities in Kenya. It is grounded in the assumption that universities operate in complex, high-risk environments and that their performance outcomes are shaped not only by the existence of risk management strategies. This shows the Integrated Risk

Management Strategy and the Relationship Risk Management Strategy as the Independent variables, while the Performance of the public universities in Kenya stands as the Dependent variable.

➤ Theoretical Framework

• Enterprise Risk Management Theory

In this study, Enterprise Risk Management Theory is adopted. The Committee of Sponsoring Organizations of the Treadway Commission (COSO) established foundational principles for the comprehensive Enterprise Risk Management (ERM) framework which organizations use to manage risks. The COSO framework emerged as a fundamental structure for Enterprise Risk Management theory after its introduction in the early 2000s despite Enterprise Risk Management having no single original author. Enterprise Risk Management surpasses conventional risk management methods through its structured process which identifies risks and assesses their impact while developing responses that monitor risk performance relative to organizational strategic goals. The theory adopts a comprehensive view of risks which acknowledges their interdependent characteristics and their influence on organizational performance. Since its creation organizations have continuously improved the ERM framework to respond to changing risk environments.

The 2017 update to the ERM framework by COSO introduced "Enterprise Risk Management - Integrating with Strategy and Performance" as its new title. The framework update focused on enhancing relevance and applicability through the demonstration of risk management integration with strategic planning alongside performance management. The updated framework establishes risk considerations as fundamental elements of organizational decision-making processes to reflect the growing recognition of risk as essential to strategic management. Currently, ERM stands at the forefront of organizational risk management practices, with widespread adoption across diverse industries. Organizations modify and customize the framework to fulfil their particular requirements while responding to new challenges.

Current research investigates ERM effectiveness within various organizational setups while assessing its influence on corporate decisions alongside building organizational resilience against uncertainty paired with risk management practices integrated into governance structures. Both scholars and practitioners acknowledge Enterprise Risk Management as an essential instrument for addressing modern business complexities while research continues to expand understanding of its detailed applications and best practices development (COSO, 2017; Hillson & Murray-Webster, 2022; Koller et al., 2021; Roth, 2021).

The higher education sector now acknowledges Enterprise Risk Management Theory as an essential framework to handle its complex operational environment (Smith, 2021). The theory delivers a systematic way to discover potential threats and implement mitigation strategies

which protect university operations for future sustainability (Jones et al., 2022). Hopkin, (2018), then suggested that in such an enterprise risks management, the university governing council should use the ERM, to effectively tackle the imposing threat or the institutional risks, especially as it affects the finance and other pertinent areas of the institution. The measures should be saddled towards adequate financing, good government intervention, without political biases, good use of modern Information, Communication and Technology (ICT) cyber-security approaches (Hopkin, 2018). Enterprise Risk Management Theory requires systematic risk identification as one of its essential components.

With consistent risk assessments, universities can spot potential dangers including shifts in enrolment along with regulatory modifications and technological changes (Brown & Johnson, 2022). By proactively identifying risks institutions can develop targeted strategies which help them remain resilient and responsive to challenges. Also, the theory stresses both continuous risk monitoring and methodical evaluation. Universities apply risk mitigation strategies while conducting regular assessments and making necessary adjustments to them (Johnson & Smith, 2023).

II. LITERATURE REVIEW

➤ Integrated Risk Management and Public University Performance

Wang, Li, and Chen (2017) conducted a study on the impact of integrated risk management (IRM) on corporate performance in multinational enterprises in China. Their study aimed to analyze how predictive analytics and real-time data integration within IRM frameworks influence financial sustainability. Using a mixed-methods approach, they collected financial data from 50 multinational firms and conducted interviews with 20 risk management executives. Their findings indicated that organizations with well-integrated IRM systems experienced 28% fewer financial losses, improved operational efficiency, and better market adaptability. They concluded that proactive risk identification minimizes uncertainty and strengthens strategic decision-making. However, their study focused on private sector enterprises, leaving a significant gap in understanding how IRM is applied within public institutions, such as universities, which operate under different governance structures, funding mechanisms, and regulatory constraints. This underscores the need for further research on how IRM strategies can be effectively tailored for higher education institutions.

Adeoye et al. (2019) examined the effectiveness of IRM in Nigeria's public sector, focusing specifically on higher education institutions. Their study employed a survey-based methodology, distributing questionnaires to risk managers, financial officers, and academic administrators in 15 public universities. Their findings revealed that institutions with comprehensive IRM frameworks demonstrated higher resilience against economic fluctuations, greater preparedness for academic disruptions, and better stakeholder trust. The study emphasized that institutions that actively integrated financial, operational, and strategic risk management strategies performed 20% better in terms of

student satisfaction and institutional sustainability. However, the study did not fully explore the role of government policies and financial constraints, which significantly affect how public universities implement risk management. This creates a gap in understanding how regulatory support and institutional autonomy interact in shaping risk management outcomes.

Njeru et al. (2020) conducted an empirical study on the application of IRM in Kenyan financial institutions, focusing on commercial banks. The study used panel data analysis from 2015 to 2019, examining how risk integration influenced financial performance. Their findings indicated that risk integration significantly reduced non-performing loans, improved financial stability, and enhanced investor confidence. They clearly explained specific areas of the use of integrated risks management strategies to include administration and funding, where the use of administrative theories or approaches can pose risks, with financial activities, which is usually the hub of every organization, including the universities. Operational risks include students and staff relations, as regards teaching and learning to effectively achieve the institutional goals. Also, they observed compliance risks as the risks in data usage and protection, with adequate regulations. Infrastructural risks, according to Njeru et al., (2020), include the risks involved in school properties and educational facilities for effective teaching and learning purposes. However, while their study provided valuable insights into the importance of IRM in financial institutions, it did not address the unique challenges public universities face, such as bureaucratic decision-making, political interference, and overreliance on government funding. Unlike banks, universities operate in a non-profit environment where risk management decisions do not solely focus on financial performance but also academic quality and institutional reputation. This gap highlights the necessity for targeted studies on how universities can effectively implement IRM strategies to ensure academic and financial sustainability.

➤ *Relationship Risk Management and Public University Performance*

Johnson et al. (2019) investigated the role of relationship risk management (RRM) in the U.S. manufacturing sector, with a focus on supplier partnerships. The study aimed to determine how firms mitigate risks arising from supplier dependency and contractual disputes. Using regression analysis on a datasets of 200 supplier contracts, they found that firms with structured conflict resolution mechanisms, transparent communication, and trust-based partnerships had higher operational efficiency, lower contract breach rates, and increased supplier loyalty. Their study concluded that well-managed relationships enhance long-term business sustainability.

However, their research was limited to the private sector and did not explore how relationship risk management applies to public institutions like universities, which have multiple stakeholders, including students, faculty, research partners, and regulatory agencies. This gap highlights the need for sector-specific studies on RRM in higher education.

Weber and Schmidt (2020) conducted a study on relationship risk management in Belgium's technology sector, analyzing how joint ventures handle risks associated with partnership failures and strategic misalignment. Using qualitative case studies, they examined six major technology collaborations and found that firms with clearly defined contractual terms, structured communication channels, and proactive dispute resolution mechanisms had stronger partnerships and higher innovation success rates. However, the study primarily focused on formal contractual mechanisms and overlooked informal relationship factors, such as organizational trust, cultural alignment, and long-term collaboration incentives, which are crucial in public universities where relationships are less transactional and more mission-driven. This gap indicates the need for more studies on how universities can manage risks related to research partnerships, academic collaborations, and regulatory compliance.

From the Northern America, specifically in United States (US) and Canada, Protiviti (2015) observed that Chief Risks Officers are efficient in using professional and legal framework of constructive relationship, with proper investment in risks management strategies could curb its spread. United Kingdom (UK) and Europe engaged in quality assurance system to adequately reduce risks and threats that might affect their universities. They included productive academic planing that assisted in drastic risks reduction. According to him too, Australia and Japan used internationalization to integrate students globally with diverse skills and knowledge, using technological adaptation and approach. Also, in Africa, infrastructural development, ERM and funding have really assisted the African universities to reduce these risks to barest minimum possible (Protiviti, 2015).

Meanwhile, all these measures have not adequately shown how these risks and threats influence, using various strategies, the performance of universities. Thus, this study is important to address this issue.

Kibet et al. (2021) assessed relationship risk management in Kenyan microfinance institutions (MFIs) by evaluating how transparent communication and financial literacy training influenced loan default rates and client retention. Using structured questionnaires distributed to 200 financial managers, the study found that institutions that emphasized relationship-building strategies, such as client education, flexible repayment plans, and grievance-handling mechanisms, experienced a 35% reduction in loan default rates. The study concluded that fostering trust-based relationships enhances long-term institutional success. However, the study did not explore how these relationship management principles apply to public universities, which do not operate on a purely transactional basis but rely on partnerships with donors, government agencies, and students. This gap suggests a need for further studies on how universities can improve stakeholder engagement and mitigate relational risks in an academic setting.

III. RESEARCH METHODOLOGY

➤ *Research Design:*

This study adopted a descriptive and explanatory cross-sectional survey research design. Descriptive design is the design that clearly describes the characteristics and the observable semantics of the variables involved, especially for the university settings and the strategic lens of risks management. Apart from the critical description of the involved characteristics of these various risks management strategies individually, it combines their impact on the performance of the universities in general. It is appropriate for profiling existing conditions and practices, while explanatory design enables the testing of cause–effect relationships among variables (Cooper & Schindler, 2014; Bryman, 2016).

Also, Cross-sectional design critically involves several sectors in the research work, under which the study is carried out. It covers more than one, because it x-rays the individual and collective involvement of different aspects of the study as they dovetail to the general result on which the research is aimed at. This design is widely used in higher education and organizational performance studies because it allows for efficient data collection from large populations and supports statistical analysis of relationships between variable. (Creswell & Creswell, 2018; Hair et al., 2019). Also, to effectively view several sections of the university settings, from finance to management, from management to students, ICT and even the community integration on academic and research purposes. It is particularly appropriate in contexts where institutional practices and performance outcomes need to be assessed simultaneously.

The explanatory component of the design supports hypothesis testing on the influence of risk management strategies on performance, as well as the moderating role of information sharing. It involves the sequential data collection and analysis, starting with quantitative paradigm, using the questionnaire for the data collection, and later to qualitative one, through the interview method of data collection.

➤ *Population:*

In this study, the target population comprised all chartered public universities in Kenya as accredited by the Commission for University Education. As at 2023, Kenya had 38 chartered public universities and five public constituent colleges (CUE, 2023). These institutions form the core of the public higher education system and account for the largest proportion of student enrolment, government funding, and institutional risk exposure. Focusing on public universities is justified by their persistent financial constraints, governance challenges, and operational vulnerabilities, which make them particularly relevant for examining risk management strategies, information sharing, and performance dynamics.

The unit of analysis in this study is the public university as an institution, while the unit of observation comprises senior management staff who are directly involved in risk management, information flow, and performance oversight.

Specifically, the study targets Deputy Vice-Chancellors (Finance & Planning and Academic Affairs), Human Resource Managers, Internal Auditors, and Quality Assurance/Research Directors. These categories were selected because they are responsible for strategic planning, financial control, academic governance, compliance, and institutional reporting, making them key custodians of risk-related information and decision-making processes. This categorization is consistent with organizational research practice, which recommends engaging senior officers who possess holistic knowledge of institutional systems and performance (Sekaran & Bougie, 2020).

The study deliberately selected 10 public universities through stratified consideration of age, size, geographical distribution, and institutional complexity. Kenya's public universities vary significantly in terms of enrolment levels, resource endowment, and historical development. Including all 38 universities would have been logistically impractical and methodologically inefficient, while selecting 10 institutions allows for depth, diversity, and manageability (Saunders et al., 2019). The 10 universities were therefore chosen to represent old established universities, mid-generation universities, and newly chartered universities, as well as different regional locations. This approach enhances representativeness and supports analytical generalization without compromising feasibility.

The target of approximately 5,000 respondents is derived from the aggregated staff establishment of the selected 10 public universities. According to university human resource records and CUE institutional profiles, large public universities in Kenya employ between 800 and 1,500 staff, while medium-sized universities employ between 300 and 600 staff. Cumulatively, the selected institutions have an estimated workforce of about 5,000 employees across academic, administrative, and support functions. From this population, respondents will be drawn specifically from management and professional cadres relevant to risk management and performance oversight. This population size is adequate for robust statistical analysis and aligns with recommendations that large organizational studies should draw from sufficiently wide populations to enhance reliability and external validity (Hair et al., 2019).

➤ *Sample and Sampling Technique*

The study adopted purposeful sampling in selecting the respondents for the study. This involves selecting participants based on specific criteria or characteristics that align with the research objectives (Sekaran & Bougie, 2020).

Stratified sampling was employed before applying purposive sampling to ensure a well-structured representation of the target population. In this study, stratification involved categorizing respondents into distinct strata based on their departmental role (DVC - Finance & Planning, DVC - Academics, Quality Assurance, and HRM). This approach ensured that all key university sectors are proportionally represented, improving the accuracy and generalizability of findings. By first dividing the population into meaningful strata, the study enhanced comparability across institutions

and administrative roles, allowing for a more structured and representative selection of respondents before purposive sampling is applied to identify key informants within each stratum.

- **Pilot Testing:** The research instruments validity and reliability were carried out accordingly. Cronbach Alpha was employed, with a reasonable and acceptable value for use.
- **Data Collection:** In this study, Primary data was collected using semi-structured questionnaires containing both open ended and close ended questions. Questionnaire is a set of relevant questions, carefully arranged for the expectation of collecting data from the respondents or participants, based on the area of the study Creswell, (2023). This study used questionnaire as one of the tools for primary data collection. The preference of questionnaires was due to their being ability to collect a wide range of data within the shortest time possible. The study used a 5-point Likert Scale to rate the responses of the respondents.

The questionnaire had 4 different sections, each addressing the study's specific objectives i.e., Section A; Demographic Information, Section B; Risk Management Strategies, Section C; Information Sharing, and Section D; University Performance. The questionnaires were administered through a drop and pick method which gave the respondents ample time to fill and return the questionnaires. Qualitative data was collected through interview questions.

The secondary data was collected using secondary data collection sheets and included measures of the performance such as Number of graduates, Research Excellence, Student Retention, Revenue generation, Innovation hubs, University Reputation, and Staff Retention for a five-year period (2019-2023). The data was collected from the annual publications.

- **Data Analysis:** The data was analyzed using both descriptive and inferential statistical techniques. Descriptive statistics were used to explore and summarize

the key features of the data-set. Measures of central tendency, including mean, median, and mode, were calculated to determine the typical responses from participants. Additionally, measures of dispersion, such as standard deviation and range, were computed to evaluate the variability of responses across different questionnaire items. This comprehensive descriptive analysis provided a detailed overview of how participants responded to various items in the questionnaire.

In the inferential statistics phase, Pearson's correlation test was employed to analyze the relationships among different research variables.

IV. FINDINGS

➤ Descriptive Statistics

This section presents descriptive statistics aligned with the study's objectives. The data is primarily summarized using the mean, representing central tendency, and the standard deviation, indicating variability. A five-point Likert scale was employed for data analysis, with response ratings categorized as follows: where; 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree.

- *Objective 1: "To Determine the Effect of Integrated Risk Management Strategies on Performance of Public Universities in Kenya".*

✓ Integrated Risk Management Strategies

Integrated Risk Management (IRM) refers to the structured and coordinated approach organizations use to manage risks across all functions and levels, aligning risk strategies with institutional objectives and decision-making processes (Frigo & Anderson, 2011). In the context of public universities, IRM ensures that academic, financial, operational, and strategic risks are collectively identified, assessed, and addressed within the governance framework. It moves beyond isolated risk practices by promoting organization-wide awareness and accountability for risk mitigation (Lam, 2014).

Table 1 Descriptive Statistics for Integrated Risk Management

Statement	N	Mean	Std. Deviation
The university has a well-documented comprehensive risk management framework covering academic, financial, operational, and strategic risks.	163	4.13	0.741
Risk management is systematically integrated into both strategic decision-making and daily operations.	163	4.10	0.681
The university utilizes advanced risk management tools, software, or technologies to identify, assess, and mitigate risks.	163	3.34	0.945
All university departments actively collaborate on risk identification, assessment, and mitigation strategies.	163	3.71	0.902
Risk management policies are embedded within the university's governance structures.	161	4.00	0.806
The university regularly monitors, evaluates, and updates its risk management strategies based on emerging risks and best practices.	161	3.95	0.872
Aggregate	162.3	3.87	0.8245

The findings in Table 1 show that the aggregate mean score for integrated risk management strategies in public universities in Kenya was 3.87 (SD = 0.8245), indicating a generally high level of agreement among respondents that these strategies are practiced to a considerable extent. This suggests that most universities have fairly robust risk management systems, although there is room for improvement in certain areas. Statements with the highest mean ratings include the presence of a well-documented comprehensive risk management framework covering academic, financial, operational, and strategic risks (M = 4.13) and the systematic integration of risk management into both strategic decision-making and daily operations (M = 4.10). This implies that universities recognize risk management as a strategic function rather than a purely operational process.

However, the relatively lower mean for the use of advanced risk management tools, software, or technologies (M = 3.34) indicates that technological adoption in risk identification and mitigation is not yet widespread, potentially limiting the effectiveness of risk management efforts in the face of complex and dynamic risks.

These results align with previous studies reviewed in Chapter Two, which underscore the importance of integrated approaches to risk management in enhancing institutional performance. For instance, Ojo and Ayandele (2021) found that comprehensive financial risk management frameworks

significantly improve the performance of Nigerian public universities, supporting the finding here that a well-documented framework is highly valued. Similarly, Jifeng et al. (2023) emphasized that risk strategies spanning multiple organizational domains contribute positively to performance outcomes, mirroring the high ratings given to cross-departmental collaboration (M = 3.71) and embedded governance structures (M = 4.00). However, the lag in technology adoption noted in this study echoes Uyar and Özkan's (2020) observation that limited exploration and integration of contextual or modern technological tools can constrain the effectiveness of risk management strategies. This suggests that while Kenyan public universities have made commendable progress in institutionalizing risk management within governance and decision-making processes, they may need to invest more in advanced analytics, software, and digital tools to enhance risk anticipation and response capacity in line with global best practices.

- *Objective 2: "To establish the effect of relationship risk management strategies on performance of public universities in Kenya".*

✓ Relationship Risk Management Strategies

The study sought to establish the influence of relationship risk management strategy on performance of public universities in Kenya.

Table 2 Descriptive Statistics for Relationship Risk Management

Statement	N	Mean	Std. Deviation
The university actively engages stakeholders in risk management processes.	163	3.70	0.910
The university has formal partnerships with other institutions to mitigate risks.	163	3.52	0.958
Risk management strategies are communicated clearly to all stakeholders.	162	3.63	0.977
The university has effective conflict resolution mechanisms in place for stakeholder-related risks	163	3.79	0.776
The university adheres to legal and regulatory requirements in all stakeholder relationships	163	4.15	0.826
The university maintains a strong reputation through proactive relationship risk management.	161	3.83	0.823
Eternal partnerships help the university to manage risks more effectively	162	3.69	0.922
Aggregate	162.4	3.76	0.885

The aggregate mean score for relationship risk management strategies was 3.76 (SD = 0.885), indicating that public universities in Kenya generally apply these strategies to a moderately high extent. The highest-rated statement was adherence to legal and regulatory requirements in all stakeholder relationships (M = 4.15), reflecting a strong compliance culture in managing relationship-related risks. Effective conflict resolution mechanisms for stakeholder-related risks (M = 3.79) and maintaining a strong reputation through proactive relationship risk management (M = 3.83) also scored above the aggregate mean, suggesting that universities prioritize conflict prevention and reputation safeguarding as core elements of their risk approach. However, relatively lower means for formal partnerships with other institutions to mitigate risks (M = 3.52) and clear communication of risk management strategies to stakeholders

(M = 3.63) indicate gaps in collaborative engagement and transparency that could limit the full effectiveness of relationship risk management.

These findings resonate with several empirical studies which highlight stakeholder engagement and compliance as key determinants of institutional resilience. For instance, Ali and Ahmed (2021) observed that universities with strong legal compliance frameworks and stakeholder communication channels are better equipped to minimize relationship-related risks.

➤ Performance of Public Universities

The main objective of the study was to determine the effect of risk management strategies on performance of public universities in Kenya.

Table 3 Descriptive Statistics for the Performance of Public Universities

Statement	N	Mean	Std. Deviation
Number of graduates	163	3.9632	0.87411
Research Excellence	163	3.6994	0.91040
Student Retention	162	3.8272	0.85306
Revenue generation	163	3.0307	1.05071
Innovation hubs	161	3.3354	0.86562
University Reputation	163	3.6933	0.85585
Staff Retention	163	4.8037	0.61723
Aggregate	162.6	3.7647	0.86100

The aggregate mean score for the performance of public universities was 3.76 (SD = 0.861), indicating a moderately high level of performance across the assessed indicators. The highest-rated dimension was staff retention (M = 4.80), suggesting that universities have been particularly successful in maintaining a stable workforce, an aspect often linked to institutional stability and long-term strategic execution. This was followed by the number of graduates (M = 3.96) and student retention (M = 3.83), reflecting relatively strong academic continuity and progression rates. Moderate ratings were recorded for research excellence (M = 3.70) and university reputation (M = 3.69), indicating room for improvement in scholarly impact and public perception. The lowest means were observed in innovation hubs (M = 3.34) and revenue generation (M = 3.03), highlighting significant challenges in fostering innovation capacity and financial diversification.

• *Multiple Regression Model:*

$$Y = \beta_0 + \beta_1 IRM_1 + \beta_2 RRM_2 + e \quad (\text{Equ. 1})$$

Where:

Y = Performance of the public universities

β_i = The coefficients representing the various independent variables.

β_0 = the Overall Mean

IRM_1 = Integrated Risks Management Strategies

RRM_2 = Relationship Risks Management Strategies

e = Error effect

➤ *Test for Hypotheses*

The study uses null hypotheses (H_0) tested at the 5% significance level ($\alpha = 0.05$) to check for significant relationships. This level helps balance error risks and keeps results reliable. The hypotheses examine how different risk management strategies affect university performance and how information sharing moderates this effect. Multiple regression analysis is chosen because it can test both direct effects and interaction terms.

➤ *Correlation Analysis*

Table 4 Correlation Analysis

		PIs	IRMS	RRMS	PRMS	IRCS	IS
PIs	Pearson Correlation	1					
	Sig. (2-tailed)						
IRMS	Pearson Correlation	.795**	1				
	Sig. (2-tailed)	0.000					
RRMS	Pearson Correlation	.800**	.734**	1			
	Sig. (2-tailed)	0.000	0.000				
PRMS	Pearson Correlation	.863**	.723**	.699**	1		
	Sig. (2-tailed)	0.000	0.000	0.000			
IRCS	Pearson Correlation	.817**	.692**	.695**	.739**	1	
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		
IS	Pearson Correlation	.533**	.488**	.484**	.418**	.622**	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	
	N	163	163	163	163	163	163

**. Correlation is Significant at the 0.01 Level (2-Tailed).

➤ *Key*

Code	Interpretation
PIs	Performance Indicators
IRMS	Integrated Risk Management Strategies
RRMS	Relationship Risk Management Strategies
PRMS	Proactive Risk Management Strategies
IRCS	Internal Risk Management Strategies
IS	Information Sharing

➤ *Regression Analysis*

Table 5 Model Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.559	0.107		5.239	0.000
Integrated Risk Management Strategies	0.145	0.042	0.169	3.422	0.001
Relationship Risk Management Strategies	0.193	0.042	0.224	4.637	0.000
Proactive Risk Management Strategies	0.337	0.042	0.400	8.004	0.000
Internal Risk Control Strategies	0.193	0.037	0.249	5.163	0.000

a. Dependent Variable: Performance Indicators• *The Study Tested the Following Hypotheses;*

- ✓ Ho1: Integrated risk management strategy has no statistically significant effect on performance of public universities in Kenya.

From Appendix IV, since the P-value is less than the Significant level (P-value<0.05), we REJECT the Null Hypothesis, and conclude that Integrated risk management strategy has statistically significant effect on performance of public universities in Kenya.

- ✓ Ho2: Relationship risk management strategy has no statistically significant effect on performance of public universities in Kenya

Also, From Appendix IV, since the P-value is less than the Significant level (P-value<0.05), we REJECT the Null Hypothesis, and conclude that Relationship risk management strategy has statistically significant effect on performance of public universities in Kenya.

V. CONCLUSION

This study set out to examine the influence of risk management strategies and information sharing on the performance of public universities in Kenya, motivated by a need to strengthen institutional resilience in an increasingly volatile higher education environment.

The study concludes that integrated risk management strategies have a statistically significant positive influence on the performance of public universities in Kenya. The hypothesis stating no significant relationship is therefore rejected. The regression analysis confirmed a significant positive coefficient (B = 0.145, p = 0.001), supported by a strong correlation (r = 0.795). This means that universities implementing holistic, enterprise-wide frameworks that align academic, financial, and operational risks into a unified strategy perform demonstrably better. While its effect was stable and not significantly altered by information sharing in the moderated model, its foundational role in creating a coherent governance structure is conclusively affirmed as a key driver of institutional outcomes.

The study concludes that relationship risk management strategies significantly and positively influence university performance, leading to the rejection of the corresponding null hypothesis. The analysis produced a significant positive regression coefficient (B = 0.193, p < 0.001) and a very strong correlation (r = 0.800). This empirically confirms that

universities which proactively manage stakeholder engagements, build formal partnerships, and maintain transparent regulatory compliance achieve higher performance levels.

The finding that this relationship was not significantly moderated suggests its benefits are robust and reliably accrued, establishing stakeholder management as an indispensable, standalone pillar of strategic success for public universities.

RECOMMENDATION

Based on the study's robust empirical findings and theoretical anchoring, this research recommends that university leadership teams intensify efforts to embed integrated risk management frameworks across all operational and strategic tiers. University councils and senates should institutionalize comprehensive risk charters that clearly define how academic, financial, operational, and strategic risks are collectively identified, assessed, and managed. This includes regularly reviewing and updating risk registers and ensuring that risk considerations are systematically factored into budgeting, curriculum development, research funding decisions, and infrastructural planning.

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