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INFLUENCE OF GOVERNANCE MECHANISMS ON SECURITY MANAGEMENT IN PUBLIC UNIVERSITIES IN NAIROBI COUNTY

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ST. PAUL'S UNIVERSITY

A DISSERTATION SUBMITTED TO THE SCHOOL OF BUSINESS AND LEADERSHIP IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF PUBLIC ADMINISTRATION AND POLICY (MPAP) OF ST. PAUL'S UNIVERSITY

OCTOBER, 2026

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DECLARATION

This dissertation is my original work and has not been presented for examination in any other Institute or university.

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Declaration by Supervisors

We confirm that the work reported in this dissertation was carried out by the student under our supervision.

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DEDICATION

I dedicate this work to my dear wife Eunice, for the incredible encouragement, even when I felt tired in the middle of the programme, and to my children, Powell, Desmond, Daniella and Erick II, for their collective motivation.

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OPERATIONAL DEFINITION OF TERMS

Concept	Operational Definition
Governance	Refers to the structures, processes, and relationships through which universities direct, manage, and monitor institutional affairs. In this study, governance is operationalized using four governance mechanisms: leadership structures, policy formulation and implementation, stakeholder participation, and accountability and oversight mechanisms (Governance in Higher Education, 2022).
Governance Mechanisms	Refer to the formal institutional arrangements that guide decision-making, accountability, and organizational control. In this study, they are operationalized through four dimensions: leadership structures, policy formulation and implementation, stakeholder participation, and accountability and oversight mechanisms, measured using respondents' perceptions on a five-point Likert scale (Shaba & Usman, 2024).
Leadership Structures	Refer to the institutional arrangements through which authority is exercised and security decisions are coordinated. They are operationalized using the indicators of authority, coordination, and leadership commitment, measured on a five-point Likert scale (Shaba & Usman, 2024).
Policy Formulation and Implementation	Refer to the processes through which universities develop, communicate, and enforce security policies. They are operationalized using policy existence, enforcement, and dissemination, measured on a five-point Likert scale (Ahmad & Muslim, 2024).
Stakeholder Participation	Refers to the involvement of internal and external stakeholders in security governance and decision-making. It is operationalized using involvement, engagement, and collaboration, measured on a five-point Likert scale (Alqershy et al., 2024).
Accountability and Oversight Mechanisms	Refer to systems that promote transparency, monitoring, and responsibility in institutional governance. They are operationalized using transparency, reporting, and supervision, measured on a five-point Likert scale (Quttainah et al., 2025).
Crime Prevention	Refers to institutional measures designed to reduce the occurrence of security incidents. It is operationalized using indicators such as the adequacy of surveillance systems, access-control measures, security patrols, and incident prevention practices (Back & Laprade, 2020).
Emergency Preparedness	Refers to the readiness of universities to anticipate, respond to, and recover from emergencies. It is operationalized using the existence of emergency response plans, frequency of emergency drills, staff and student training, and response coordination (Back & Laprade, 2020).
Security Governance	Refers to the strategic coordination of leadership, policies, accountability mechanisms, stakeholder participation, and risk management practices to safeguard institutional security. It is operationalized through the composite implementation of governance mechanisms supporting security management (Abdulrasool & Turnbull, 2020).
Government Policy	Refers to the national legal and regulatory framework influencing governance and security management in universities. In this study, it is operationalized through respondents' perceptions of the adequacy of regulatory frameworks, higher education regulations, ICT regulations, and national security policies, measured on a five-point Likert scale.

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Institutional Resilience	Refers to the ability of universities to withstand, adapt to, and recover from security disruptions while maintaining institutional operations. It is operationalized using indicators of preparedness, adaptability, continuity of operations, and recovery capability (Nwachukwu et al., 2025).
Cybersecurity Threats	Refer to risks arising from unauthorized access, cybercrime, data breaches, and disruptions to institutional information systems. They are operationalized using indicators such as the frequency of cyber incidents, system downtime, vulnerability assessments, and cybersecurity awareness programmes (Wanjihia et al., 2025).

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ACRONYMS AND ABBREVIATIONS

Acronym	Full Meaning

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ABC	Administrative, Behavioural, and Cultural Model
ANOVA	Analysis of Variance
ASEAN	Association of Southeast Asian Nations
COBIT	Control Objectives for Information and Related Technologies
CUE	Commission for University Education
GMOs	Genetically Modified Organisms
GRC	Governance, Risk, and Compliance
HEIs	Higher Education Institutions
ICT	Information and Communication Technology
LIA	Local Independent Authorities
MPAP	Master of Public Administration and Policy
MNCs	Multinational Corporations
NACOSTI	National Commission for Science, Technology and Innovation
NIST	National Institute of Standards and Technology
PESTLE	Political, Economic, Social, Technological, Legal, and Environmental
\(r_s\) (RS)	Spearman's Rank Correlation Coefficient
SEM	Structural Equation Modelling
SPSS	Statistical Package for the Social Sciences

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ABSTRACT

Governance mechanisms are essential for enhancing security management in higher education

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institutions, focusing on improving leadership, accountability, policy implementation, and stakeholder engagement. However, rising security threats such as terrorism, cybercrime, and institutional unrest have revealed significant vulnerabilities in the governance and security frameworks of Kenyan public universities. While prior research has analyzed governance and security in isolation, empirical evidence examining the relationship between governance mechanisms and security management is sparse, particularly regarding the impact of government policy as a moderating factor. This study aims to investigate how governance mechanisms influence security management in public universities within Nairobi County, with government policy considered as a moderating variable. The research is founded on Agency Theory, Institutional Theory, and Securitization Theory, employing a descriptive cross-sectional approach. The target population consisted of governance and security personnel from six public universities: the University of Nairobi, Kenyatta University, Jomo Kenyatta University of Agriculture and Technology, Technical University of Kenya, Multimedia University of Kenya, and Co-operative University of Kenya. A purposive sampling technique facilitated the selection of 90 respondents. Primary data were gathered through a structured questionnaire, ensuring reliability and validity via pilot testing, which resulted in a Cronbach's alpha coefficient of 0.873. Data analysis was conducted using SPSS version 30, utilizing descriptive statistics, Pearson correlation, multiple linear regression, and hierarchical regression alongside diagnostic tests. The study found that accountability mechanisms and government policy significantly and positively influence security management within these institutions. Accountability mechanisms have been identified as the most significant predictor of security management in public universities, with government policy also playing a notable role. Other factors such as leadership structure, policy implementation, and stakeholder participation showed no independent significant effects. The study indicated that the interaction between governance mechanisms and government policy does not significantly affect security management. To enhance security, concerning leadership structure, the study recommends that university management should have regular reviews of the management structure in order to strengthen and align it with modern security challenges. Concerning policy formulation and implementation, university management should regularly evaluate existing security policies to identify possible gaps between design and implementation. On stakeholder participation, universities should continue to foster stakeholder involvement in security matters while assessing the effectiveness of current participation mechanisms

On accountability mechanisms, the study recommends that university management improve accountability systems through clear reporting structures, monitoring mechanisms, and transparent oversight, while government agencies should bolster regulatory support and security policy implementation. This research contributes to the understanding of governance and security management by offering empirical data on effective governance mechanisms in Kenyan public universities.

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CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Governance and security are essential for higher education institutions, ensuring stability, resilience, and continuity in academic programs. Governance encompasses the relationships, processes, and structures that guide and hold institutions accountable, involving interactions among stakeholders at institutional, national, and regulatory levels. These relationships shape the power, responsibilities, and decision-making processes dictated by national policies and regulatory norms (Governance in Higher Education, 2022). Given the diversity of universities, governance must be adaptable, maintaining a balance between efficiency, accountability, and collegiality among academics. Modern governance emphasizes compliance and accountability as key factors for institutional performance and resilience, prioritizing these over mere regulatory adherence. Effective governance, alongside risk and compliance practices, fosters stakeholder trust, ensuring operational continuity and long-term sustainability (Nwachukwu et al., 2025). The Administrative, Behavioural, and Cultural (ABC) Model framework merges academic, business, and governance goals to improve efficiency and compliance, while promoting inclusive practices like stakeholder engagement and transparency, which collectively bolster trust and sustainable performance.

Further enhanced institutional resilience can be realized through the application of Blue Ocean Strategy and shareholder-involved governance, as noted by Deak et al. (2025) and Schulz and DeZolt (2025). This transition to business-oriented governance often faces resistance from traditional academic cultures, underscoring the necessity of robust Governance, Risk Management, and Compliance (GRC) frameworks to facilitate successful changes, particularly in the context of digitalization (Singh, 2025; Ausfelt, 2025). Additionally, the escalating threats of terrorism, cybercrime, and internal unrest pose significant challenges to universities globally, necessitating governance systems that prioritize security as a strategic

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imperative. This text discusses models for managing security risks, specifically mentioning Enterprise Security Risk Management and COBIT, which emphasize accountability, risk-based decision-making, and continuous improvement (Abdulrasool and Turnbull, 2020). It also highlights the significance of security governance in public universities in Nairobi County, emphasizing the need for effective processes to formulate, monitor, and coordinate actions among stakeholders. This governance is deemed essential due to the rising threats of terrorism, civil unrest, and cyber dangers linked to the use of ICT (Omusugu et al., 2023). Studies demonstrate that good governance is linked to effective practices in Enterprise Security Risk Management (ESRM), enhancing institutions' capability to respond to security threats. This underscores the crucial role of governance mechanisms in shaping security management within higher education settings.

The security governance of public universities in Nairobi County has become increasingly vital, particularly following the Garissa University attack, which underscored the need for comprehensive staff training, regular emergency drills, and robust access control to reduce risks and enhance crisis management (Mwangi et al., 2024). Moreover, the rise of digital tools has escalated cybersecurity threats, resulting in data breaches and service interruptions that jeopardize institutional integrity (Wanjihia et al., 2025). Despite the pressing nature of cybersecurity in the current threat environment, universities still notably lack formal policies addressing these issues. This disparity reveals critical deficiencies in governance, policy formation, and the strategic implementation of cybersecurit initiatives (Owino et al., 2025). Compounding this issue is the acute shortage of qualified cybersecurity professionals; the demand ranges between 40,000 and 50,000, yet there are only about 1,700 certified experts available (Kaibiru et al., 2023). These challenges severely restrict institutions' capabilities to address and respond to the ever-evolving cyber threats, ultimately hindering universities' ability

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to develop effective security governance. While previous studies have addressed governance, security, and risk management in separate contexts, a notable gap remains in empirical studies of governance mechanisms and their impact on security management within public universities in Nairobi County. This highlights the critical need for dedicated research in the intersection of governance and security in higher education, emphasizing the role of government policy as a mediating factor.

1.1.1 Global, Regional and Local Perspectives Governance Mechanisms and Security Management

Globally, Universities continue to face increasing security challenges that require integrated and proactive security management approaches. More et al. (2025) note that higher education institutions must be ready to manage diverse threats to security emanating from violence and crime against university infrastructure and information systems. More et al. further argue that there is a growing prevalence of mental health issues, cyberattacks, university protests and violence that has necessitated the implementation of technology-related surveillance systems, response and risk assessment mechanisms. Regional studies by Dlamini and Olanrewaju (2021); Moosa et al. (2023) and Sepadi Chadyiwa (2023) have shown that South African universities continue to experience various threats to security, including violent protests, murders, robbery, mugging, property damage, inadequate infrastructure, and safety, amongst other security concerns. In Kenya, particularly in Nairobi, Ochieng (2020) documented threats to security and the lack of measures to adequately counter terrorism and other security threats.

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1.1.2 Governance Mechanisms

Governance mechanisms refer to the formal structures and processes that guide, manage, and hold institutions accountable, which are crucial in areas such as security management (Shaba & Usman, 2024). Further, OECD (2023) defines governance mechanisms as the legal, regulatory and institutional frameworks which are directed, controlled, and monitored to

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achieve accountability, transparency, effectiveness, and strategic objectives. These two definitions are supplemented by Kaufmann and Kraay (2024), who argue that governance mechanisms refer to traditions, institutions, processes, and structures through which stakeholders are held accountable, decisions are made, and authority is exercised. In the context of public universities in Nairobi County, these mechanisms are conceptualized through four key indicators: leadership structures, policy formulation and implementation, stakeholder participation, and accountability and oversight mechanisms. Each of these dimensions plays a vital role in enabling universities to effectively detect, manage, and respond to security issues (Quttainah et al., 2025). Leadership structures are a vital component of governance and involve authority, coordination, and commitment to security preparedness and response in university management. Good leadership ensures a clear line of authority and also promotes coordination of departments and commitment to security preparedness and response in university management (Adole, 2024). Effective leadership significantly improves prompt decision-making processes within organizations. Additionally, it enhances institutional strategies, particularly those focused on safety and risk management, as noted by Shaba and Usman (2024).

The execution and formulation of policies are critical aspects of effective governance, particularly within universities. These can be assessed by the clarity, communication, and enforcement of institutional policies. Clear and well-structured policies empower universities to manage risks, ensure adherence to regulations, and influence the conduct of both faculty and students. However, the mere existence of these policies is insufficient; their successful application and proper distribution across the institution are equally vital. Ahmad and Muslim (2024) highlight that there are no guarantees against their ineffective execution or uneven application among different departments. Moreover, stakeholder involvement is crucial to

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enhancing governance structures. Active participation from students, faculty, security staff, and external entities fosters a collective sense of responsibility, facilitates better information exchange, and enables coordinated responses to institutional challenges. Research by Alqershy et al. (2024) supports the notion that participatory governance improves institutional effectiveness and responsiveness, particularly when addressing complex organizational challenges. Inclusive collaboration ensures that governance is not only structured but also holistic, meeting the diverse needs of the university community.

1.1.3 Security Management

Security management is an integrated approach aimed at safeguarding organizational assets, particularly in response to the increasing frequency of cyber-attacks targeting universities (Back and Lee, 2020). According to Moore (2025), security management are strategies, practices, technologies, personnel and emergency preparedness to respond to, prevent and recover from threats that could disrupt the normal institutional operations and endanger members of the organisation. IFAC and CPFA (2026) look at security management as leadership, governance, policies and operational processes established in an organization to ensure protection of organisational resources, including people, against internal and external threats. This study delineates three critical and quantifiable components of security management: crime prevention, emergency preparedness, and access control. Crime prevention encompasses strategies and initiatives designed to avert, detect, and reduce security incidents within the university environment. It focuses on proactive measures that institutions can implement to mitigate risks. In contrast, emergency preparedness evaluates an institution's ability to respond effectively to crises or threats, emphasizing readiness and resilience in the face of unforeseen events. This aspect highlights both the immediate actions required during a threat and the institutional capacity to recover post-crisis. Access control involves the systems and protocols established to oversee and regulate access to physical and digital resources, thereby preventing

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unauthorized entry and ensuring that sensitive information remains secure (Back and Laprade, 2020). Together, these dimensions form the framework through which educational settings assess and strengthen security management.

Universities should take measures to protect sensitive information, personnel, and physical infrastructure. Management by objectives can foster improved security accountability by aligning institutional objectives with security practices (Liping & Abd Rahman, 2024). Digital transformation advances security systems and makes it possible to respond to the changing threats in time (Shen, 2025). The allocation of resources to technological improvements and employee training is also aided by the governance mechanisms (Hill, 2008). The fundamental requirement of information security management is to secure personal and research information to minimize risks (Jiang, 2024; He et al., 2025). While compliance is necessary, there is a need for stakeholders to also be responsible for fostering a proactive approach to security culture in order to ensure that more comprehensive security management is achieved.

1.1.4 Governance and Security

Higher education institutions face new security threats, including cyber threats, acts of terrorism, and operational disruptions; thus, they need strong security management. Based on the literature, this study examines the dependent variable of security management, measured using factors such as access control, crime prevention and emergency preparedness. Access control is a key metric because it reflects the performance of physical and digital access control systems and their ability to manage access and block unauthorized access (Vlasenko, 2025). The ability of an institution to deter and minimize security incidents is its crime prevention capability. Emergency preparedness, on the other hand, refers to the preparedness of an institution to act and recover from crises. This is achieved through a range of preparation strategies, such as drills, risk assessments, and coordinated response systems (Vlasenko, 2025). They all help to address preventive, protective, and responsive security elements essential to

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modern university safety systems, particularly in the face of escalating cybersecurity risks, such as data breaches and system failures, which require an integrated security response (Barruga, 2025). Implementation and institutional capacity gaps, among others, often affect the effectiveness of security management indicators in the Kenyan context (Owino et al., 2025; Rani, 2025). In spite of the development and adoption of ICT and changes in security threats, these indicators are still considered valid for evaluating the security management of universities.

1.1.5 Government Policy

Government policy includes laws and guidelines crafted by authorities to direct organizational practices, particularly in university security systems. This study analyzes how government policy acts as a moderating factor between the effectiveness of governance mechanisms in the management of security in universities. It focuses on the interdependence of various aspects of the higher education sector, including leadership, policy structures, coordination, accountability, and engagement with stakeholders on the outcomes of security management. Three main components describe the measurement of government policy in universities: regulation, compliance, and government support. Regulation consists of compulsory security rules that define and affect institutional practices and set conditions that are essential to the institution (Keeping the House in Order: Government R..., 2018). Compliance is the extent to which universities abide by these rules and is influenced by a range of regulatory and normative pressures (Kam et al., 2013). Government support includes the provision of resources, training and technical assistance to strengthen institutional capacities and improve policy implementation (Shamsutdinova & Razuvaeva, 2025). By combining these indicators, a comprehensive picture of the efficacy of government policies for security management in higher education emerges, encompassing both police enforcement and enabling elements of policy implementation. Governance mechanisms are more effective in improving security

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outcomes, such as crime prevention, emergency preparedness, and access control, when regulations are clear, compliance is high, and support is adequate. Effectiveness of governance mechanisms is diluted by weak regulations, low compliance, or low support. Thus, government policy plays a critical role in the translation of governance practices to efficient management of security in Kenyan universities.

1.1.6 Study Context

The complexity of the climate of higher education institutions that are faced with cyber threats and risks of terrorist acts that have the potential to cause disruptions in their operations and stability is important for the continuity and stability of these institutions. The intensity of exposure of universities in Kenya is attributable to the high speed at which information and communication technology (ICT) is being adopted and various institutional capacities. This setting highlights the importance of having strong security management systems to reduce both physical and cyber risks. Access control, crime prevention and emergency preparedness are evaluated in the context of security management as an expression of the preventive, protective and responsive side of institutional security. Access control examines how well both physical and electronic solutions are working to control access and to prevent unauthorized entry. Crime prevention is the institution's ability to prevent and reduce security incidents. Emergency preparedness includes preparedness for crises and their consequences, which is achieved through drills, risk assessment, and cooperation among individuals and institutions (Vlasenko, 2025). Cybersecurity risks such as data breaches and system failures are becoming more prevalent in universities in Kenya, making it imperative to implement integrated security measures (Barruga, 2025). The implementation gaps and low institutional capacity at many universities, however, hinder these initiatives (Owino et al., 2025; Rani, 2025). Government policy becomes a crucial determinant of governance structures and of their outcomes in terms of security. The dynamic between governance mechanisms and policy landscape is important

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for improving the effectiveness of university security systems. A well-defined regulatory framework, strong compliance measures, and substantial government backing are essential for bolstering governance mechanisms that improve crime prevention, emergency preparedness, and access control. Conversely, weak enforcement, low compliance, and a lack of institutional support may adversely affect security performance. Security in the higher education sector is therefore explored as a major context in Kenya, and this shows the opportunities and challenges in security management. The changing nature of threats, the wide range of institutional capacities, and enforcement challenges make it an interesting arena for examining how different governance structures and government policies work together to create security outcomes in universities.

Nairobi has several well-known public universities such as the University of Nairobi, Kenyatta University, Jomo Kenyatta University of Agriculture and Technology, and the Technical University of Kenya, among others. Furthermore, the Multimedia University of Kenya and the Co-operative University of Kenya are located in the Kenyan urban metropolitan area of Nairobi. Institutions play a key role in this study as they represent significant public higher education institutions in an urbanized and digitally connected environment where governance structures and security management systems are constantly challenged by new physical and cyber threats. The selected universities form part of the study examining the role of governance mechanisms in the security management of higher education institutions. Their inclusion is appropriate since they are large, complex organizations with similar regulatory environments and security issues, such as cyber threats, threats of terrorism, and operational disruptions. Their size, reliance on information and communication technology, and urbanity make them particularly relevant for assessing the impact of governance arrangements on security outcomes.

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All the institutions in Kenya are regulated by the Commission for University Education (CUE) under the Universities Act CAP 210, which helps to ensure standardization and quality assurance. Nevertheless, there are differences in governance practices, technological capacity and security readiness across institutions. There are inconsistencies in security management, with the universities being a good choice for comparison. Key governance mechanisms, such as leadership structures, policy frameworks, accountability systems, and stakeholder engagement, are vital for effective security management strategies. The mechanisms are embedded in the planning, coordination and actions of universities in the face of threats to security, whether physical, cyber or emergency. Government policies significantly affect university effectiveness, shaped by the interplay of regulations, compliance enforcement, and institutional support. The universities selected not only fall within the geographical region, but also conceptually support the goal of studying how governance mechanisms influence the outcomes of security management in a heterogeneous and controlled higher education setting.

1.2 Statement of the Problem

Public Universities in Nairobi County are expected to operate as safe and stable environments in which teaching, research, and administration can proceed without disruption. As key drivers of national development, they are expected to produce knowledge, innovation, and human capital within campuses that are effectively governed and adequately protected against the security risks inherent in large, diverse, and technologically dependent institutions. Sound governance mechanisms, leadership structures, accountability systems, and stakeholder participation are expected to translate directly into robust security management, ensuring that growth in student populations, infrastructure, and ICT adoption is matched by a corresponding strengthening of institutional resilience.

In practice, however, the operational environment of public universities in Nairobi County

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has become increasingly fragile. Expanding campus populations, growing infrastructure, and extensive reliance on

ICT systems have heightened institutional exposure to security risks, including terrorism, cybercrime, theft, and violence, undermining universities' core academic and administrative functions. The 2015 Garissa University attack, in which more than 130 people were killed, remains the starkest illustration of this fragility, exposing critical gaps in institutional preparedness, coordination, and emergency response (Mwangi et al., 2024). Cybersecurity risk has since emerged as an additional and escalating concern for higher education institutions globally and in Kenya specifically. The scale of this exposure is well documented: globally, approximately 50% of universities report a data breach annually, and more than 70% of university networks have experienced cyber threats within the past five years (Kaibiru et al., 2023). At the national level, crime statistics confirm that Kenya's education sector is disproportionately affected by cybercrime (Wanjihia et al., 2025). These figures indicate that security risk in the university sector is not an isolated or declining problem but a persistent and growing one. Despite this evidence, empirical understanding of how governance mechanisms translate into effective security responses within universities remains limited. Existing accountability and governance research focuses on public-sector service delivery broadly, rather than the control mechanisms universities require as institutions operating within complex, dual public–private stakeholder networks (Tricker, 2015). Where governance is studied, research tends to isolate single components, such as leadership or stakeholder involvement, without empirically examining how these factors interact to jointly influence security outcomes, leaving a theoretical gap in the literature (Solomon, 2017). Research specific to public universities in Nairobi County is especially scarce (Otieno, 2021), a significant omission given that governance arrangements, institutional conditions, and security contexts in Kenya's higher education sector cannot be assumed to mirror those in other sectors

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or countries.

The available literature is also methodologically limited. Much of it relies on qualitative or descriptive designs with small samples, restricting generalizability and precluding statistical inference (Hillman & Dalziel, 2003; Tricker, 2015). Many studies further neglect to establish measurement validity, test reliability, or verify the robustness of their diagnostic conclusions, which weakens their empirical credibility. There is also a marked shortage of multiple regression studies capable of meaningfully capturing the interactions between governance variables and security outcomes. Theoretically, prior work has tended to apply single-theory approaches, without integrating Agency Theory, Institutional Theory, and Securitization Theory into a unified analytical framework. This under-theorization has left the combined effect of governance mechanisms on security management poorly understood. Compounding this, the moderating role of government policy in the relationship between governance structures and security outcomes has rarely been examined, despite its evident relevance in a tightly regulated environment such as Kenya's. It is against this background that the present study adopts a descriptive cross-sectional design to examine the effect of governance mechanisms on security management in public universities in Nairobi County, with government policy tested as a moderating variable.

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1.3 Objectives of the Study

The main objective of this study is to examine the influence of governance mechanisms on security management in Public Universities in Nairobi County, with government policy as a moderating variable.

1.3.1 Specific Objectives

This research sought to:

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i) Assess how leadership structures influence security management in Public Universities in Nairobi County.

ii) Examine the effect of policy formulation and implementation on security management in Public Universities in Nairobi County

iii) Determine the influence of accountability and oversight mechanisms on security management in Public Universities in Nairobi County.

iv) Examine the influence of stakeholder participation on security management in Public Universities in Nairobi County

v) Establish the moderating effect of government policy on the relationship between governance mechanisms and security management in Public Universities in Nairobi County.

1.4 Research Hypotheses

The study tested the following null hypotheses:

H_{01}: Leadership structures have no significant influence on security management in Public Universities in Nairobi County.

H_{02}: Policy formulation and implementation have no significant effect on security management in Public Universities in Nairobi County.

H_{03}: Accountability and oversight mechanisms have no significant influence on security management in Public Universities in Nairobi County.

H_{04}: Stakeholder participation has no significant influence on security management in public universities in Nairobi County.

H_{05}: Government policy has no significant moderating effect on the relationship between governance mechanisms and security management in Public Universities in Nairobi County.

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1.5 Significance of the Study

The study highlights the critical importance of governance mechanisms for improving security management, institutional resilience and continuity of operations in Public Universities in Nairobi County. As these institutions are exposed to a host of security risks, including cybercrime, terrorist attacks, and emergency disruptions, there is increased risk to students, staff, infrastructure, and information systems. It explores how leadership, policy implementation, coordination, and stakeholder involvement affect security outcomes, and how good governance can strengthen compliance, preparedness, and the continuity of academic and administrative activities. Moreover, the study provides useful lessons for university administrators on strengthening governance mechanisms to better support security management procedures and underscores the value of integrated governance systems in reducing institutional vulnerabilities and promoting coordinated responses to security challenges on university campuses. The results provide important empirical data for policymakers and regulators in higher education and can inform them about the impact of government policy on the effectiveness of governance mechanisms. The use of government policy as a moderating variable fills an important gap in the literature and highlights the need to improve the support that regulatory bodies offer the universities in the development of effective security systems. This study also contributes to the existing academic discourse in governance and security management literature which is limited in scope, by expanding knowledge of governance and security management in public universities in the Nairobi County context, where empirical evidence is limited. It lays the foundation for future studies on the role of integrated forms of governance and their effects on institutional resilience in the higher education sector.

1.6 Scope of the Study

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The study is aimed at public universities in Nairobi County, Kenya, which include major universities like the University of Nairobi, Kenyatta University, University of Jomo Kenyatta (JK) of Agriculture and Technology, Technical University of Kenya, Multimedia University of Kenya and Co-operative University of Kenya, which are in the greater Nairobi Metropolitan. These universities have been chosen as they constitute the full range of public universities in Nairobi under the regulatory supervision of the Commission for University Education (CUE). The Universities Act CAP 210 (CUE, 2014) places the mandate of accreditation, regulation and quality assurance in the higher education sector on the shoulders of CUE in Kenya. This regulatory framework legitimizes their participation in the study, and guarantees that all the institutions selected have a uniform governance and quality assurance system, which makes it possible to perform a comparative analysis. The study explores the linkages between governance mechanisms such as leadership structure, policy formulation and implementation, accountability systems, and stakeholder participation, and the outcomes of security management in tertiary institutions. Security management involves physical security, cyber security, and Emergency Preparedness. The role of the government policy is specified as a moderating variable affecting institutional compliance, allocation of resources and implementation of security-related governance measures. Furthermore, Agency Theory, Institutional Theory, and Securitization Theory are used as theories underpinning the study. These theories provide a framework for exploring how governance structures and policy environments affect security management outcomes in Kenyan public universities.

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1.7 Limitations of the Study

This study recognizes several limitations, even though methodological procedures were used to minimize their impact. Firstly, issues such as respondent bias, recall errors, and reluctance to provide accurate information may arise, particularly among university administrators,

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security personnel, and staff. In order to mitigate these concerns, the study guarantees anonymity and confidentiality of the respondents, employs structured questionnaires and carries out a pilot test to decrease ambiguity and increase clarity of the data collection instruments. Secondly, the study is geographically limited to the public universities in Nairobi County, which may restrict the generalizability of the results to other parts of the country and other countries with different security and governance structures. This constraint will be addressed by providing detailed contextual descriptions of the selected universities and by clearly articulating the scope of the study, thus helping to increase the transferability of the findings. Third, attention to governance mechanisms such as leadership and stakeholder participation can neglect other deeper socio-cultural and psychological drivers of security perceptions. This will be addressed by the inclusion of validated measurement scales and varied data from respondents to improve findings. Fourth, the changing landscape of threats to cybersecurity requires a focus on known security management KPIs and awareness of the challenges of data collection. Lastly, the study will apply pilot testing, standardized Likert scale questions and reliability testing using Cronbach's alpha to guarantee the internal consistency of the instruments to address the problems of incomplete responses and different interpretations.

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CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

The objective of this chapter is to synthesize the literature review on the influence of governance mechanisms on security in higher education institutions and review relevant theories, empirical studies, and conceptual frameworks to be used as a basis to understand the role of governance mechanisms in the process of attaining security management in public universities in Nairobi County.

2.1 Theoretical Review

This section reviews the theories that support the study. These include agency theory, institutional and securitization Theories

2.1.1 Agency Theory

Agency Theory, put forward by Ross (1973) and later developed by Jensen and Meckling (1976), rests on the assumption that whenever a principal delegates decision making authority to an agent, the two parties hold divergent interests and operate under asymmetric information. The theory assumes that agents are rational, self-interested actors who, if left unchecked, may pursue opportunistic behaviour that departs from the principal's interests, and that such behaviour can be constrained through monitoring, reporting, and the alignment of incentives. Behavioural extensions of the theory, including Behavioural Agency Theory (Wiseman & Gomez Mejia, 1998; Sanders & Carpenter, 2003; Pepper & Gore, 2012), assume further that motivation, risk sensitivity, and perceptions of fairness shape agent behaviour alongside economic incentives.

The Theory offers a well-established framework for explaining how monitoring, reporting, and incentive alignment mechanisms improve organizational decision making and performance, a relationship supported empirically by Fama and Jensen (1983) and Eisenhardt (1989). Its behavioural extensions strengthen the theory further by incorporating motivation, risk

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sensitivity, and fairness perceptions, broadening its explanatory power beyond purely economic incentives (Wiseman & Gomez Mejia, 1998; Sanders & Carpenter, 2003; Pepper & Gore, 2012). This combination of structural and behavioural insight makes the theory well suited to explaining how formal governance controls shape institutional outcomes. Further, the theory has been criticized for focusing almost exclusively on the behaviour of agents while giving little attention to the conduct of principals, for underestimating the role of trust in principal-agent relationships, and for largely disregarding intrinsic motivation as a driver of behaviour (Perrow, 1986). Its assumption that actors are primarily self-interested and opportunistic can also understate the cooperative and relational dynamics present in institutional settings such as universities.

The theory frames university leaders and security administrators as agents entrusted by university councils and government as principals to safeguard institutional security, making leadership effectiveness a direct function of how well monitoring and incentive alignment constrain opportunistic or negligent conduct. Policy implementation is similarly explained as an agency relationship in which gaps between policy intent and practice arise when those charged with implementation, as agents, are not adequately monitored or incentivized by policymakers, as principals. Accountability sits at the core of the theory itself, since reporting and answerability mechanisms are the primary means by which information asymmetry and opportunistic behaviour are reduced. Stakeholder participation functions as an additional monitoring mechanism, in which the involvement of administrators, security personnel, and other stakeholders serves as a check on agent behaviour beyond formal reporting lines. Government policy, treated in this study as a moderating variable, operates as an external, principal-level control that can strengthen or weaken the effectiveness of internal monitoring and incentive mechanisms, thereby shaping how governance mechanisms translate into security management outcomes, the ultimate dependent

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variable in this study.

Finally, the theory is relevant to this study because it provides a coherent explanation for why governance mechanisms, leadership, policy implementation, accountability, and stakeholder participation are expected to influence security management outcomes in public universities in Nairobi County. By conceptualizing university leaders and administrators as agents accountable to institutional principals, the theory justifies examining monitoring, reporting, and incentive-related mechanisms as determinants of physical security, cybersecurity, and emergency preparedness. It further supports the study's inclusion of government policy as a moderating variable, since policy functions as an external control that can tighten or loosen the agency relationship between university administrators and the institutions they serve, ultimately strengthening or weakening the resilience of public universities in Nairobi County.

2.1.2 Institutional Theory

The theory emerged from a combination of sociology, economics, and political science, and assumes that organizations exist in a continuous struggle to follow, or in some cases break, rules, norms, and cultural expectations in order to gain and maintain legitimacy. The sociological strand of the theory (Zucker, 1987; Scott, 1987, 2008) assumes that external influences such as regulations, professional standards, and social norms shape organizational behaviour independently of technical efficiency. The economic strand, developed by North (1990, 1994), assumes that both formal institutions, meaning laws and policies, and informal institutions, meaning norms and conventions, guide organizational behaviour and reduce uncertainty. The political science strand, exemplified by Hall and Taylor (1996), assumes that institutional architecture shapes individual behaviour and carries political consequences. Combined, these

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strands assume that organizational adaptation and legitimacy result jointly from external institutional pressure and the internal rules through which organizations respond to it (Peng & Heath, 1996; Miles, 2012).

By drawing together sociological, economic, and political science perspectives, Institutional Theory offers a comprehensive account of why organizations adopt particular structures and practices for reasons of legitimacy and conformity, not efficiency alone. The combined sociological and economic model in particular provides a strong basis for explaining organizational adaptation and legitimacy under regulatory, cultural, and normative pressure (Peng & Heath, 1996; Miles, 2012), making the theory well suited to institutions, such as universities, that must respond simultaneously to government regulation, professional standards, and public expectation. However, Kostova et al. (2008) argue that applications of the theory tend to flatten its theoretical nuance and neglect the diversity of organizational contexts, a limitation that is especially pronounced in multinational or multi-site institutions. The theory has also been criticized for placing too little emphasis on the significance of internal decision-making and internal leadership roles, treating organizations largely as responders to external pressure rather than as active shapers of their own governance.

Institutional Theory situates leadership as the internal mechanism through which external regulatory, professional, and normative pressures are interpreted and translated into institutional practice, addressing the very gap the theory's critics identify. Policy implementation corresponds directly to North's formal institutions, the laws, regulations, and government requirements that universities must adopt to maintain legitimacy. Accountability reflects the normative and regulatory pressures identified by Zucker (1987) and Scott (1987, 2008), through which universities demonstrate conformity to professional standards and public expectations.

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Stakeholder participation reflects the cognitive and normative dimensions of the theory, whereby social expectations from administrators, security personnel, and the wider university community shape the adoption of participatory governance practices. Government policy, treated as a moderating variable in this study, corresponds to the formal institutional pressure that North (1990, 1994) identifies as capable of strengthening or weakening how internal governance mechanisms translate into organizational outcomes, in this case, security management, the study's dependent variable, understood as the practices universities adopt to secure legitimacy and continuity of operations.

The theory is relevant to this study because public universities in Nairobi County operate under simultaneous external pressure, from government regulation, professional security standards, and public expectation, and internal governance arrangements, leadership, policy implementation, accountability, and stakeholder participation, that together determine how security practices are adopted and sustained. The theory justifies examining government policy as a moderating variable because it represents formal institutional pressure that can reinforce or weaken the effect of internal governance mechanisms on security management outcomes. It further supports the study's underlying premise that universities adopt and maintain security practices not only to manage physical, cyber, and emergency risks directly, but also to preserve institutional legitimacy and ensure the continuity of university operations.

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2.1.3 Securitization Theory

The theory was developed by the Copenhagen School, comprising Barry Buzan, Ole Wæver, and Jaap de Wilde, in the late 1980s and formalized in *Security: A New Framework for Analysis* (1998). The theory departs from earlier, realist understandings of security as a fixed, largely military condition attached to the survival of the state. In its place, the Copenhagen School proposes that

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security is better understood as something produced through language and social interaction. An issue only becomes a security matter once a figure with sufficient authority, whether a political leader, an institutional head, or another recognized actor, publicly frames it through a speech act as posing an existential danger to something valued. If that framing is accepted by the relevant audience, it opens the way for responses that fall outside the normal rules of governance and decision-making. What results is a shift: an issue that might otherwise have remained a matter of ordinary policy debate is instead moved into the realm of urgent, exceptional action, often with reduced opportunity for the usual checks that accompany routine governance.

Several assumptions underpin this framework. Chief among them is the idea that security is not an objective, self-evident fact but something constructed intersubjectively between the actor making the claim and the audience receiving it, since a securitizing move only takes effect once it has been recognized and accepted by those it is addressed to (Wertman, 2022). A closely related assumption is that a threat only becomes politically consequential once it has been successfully communicated and accepted, rather than simply because it exists in some measurable sense, a point that continues to anchor debate over what should count as a genuinely existential threat within the theory (Karyotis et al., 2025). The theory also assumes that the actors doing the framing must hold enough institutional standing or social credibility for their claims to carry weight, since the perceived legitimacy of the speaker has a direct bearing on whether an audience is willing to accept a given security claim (Wertman, 2022), and that once a securitizing move succeeds, it justifies departures from ordinary procedure that would be difficult to defend under normal political scrutiny (Karyotis et al., 2025). Finally, the framework allows for movement in the opposite direction as well, since issues that have been securitized can, under the right conditions, be returned to the space of normal politics through a process the theory terms desecuritization, although recent scholarship notes that

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this reverse movement is neither automatic nor easily achieved once a threat has been institutionally embedded (Karyotis et al., 2025). One of the clearest strengths of this approach is how far it has travelled beyond its original focus on states and military affairs. Scholars have applied it productively to migration, environmental change, religion, public health, and digital security, which speaks to its adaptability across very different policy domains (Stritzel, 2014; Gaidaev, 2021; Baele & Thomson, 2025). Because the theory centers on discourse and process rather than static definitions of threat, it gives researchers a way of tracing how an issue moves from routine administration into emergency governance, and it draws attention to institutional practices as much as formal written policy (Schlag, 2015). For organizations such as universities, where responses to disruption often hinge on how a situation is perceived and communicated internally rather than on codified rules alone, this focus on process proves especially useful.

However, a recurring concern is that judging whether a speech act has actually succeeded in securitizing an issue involves a fair amount of interpretive judgment, which opens the analysis to charges of subjectivity (Baele & Thomson, 2025). There is also a normative worry attached to the framework: because it describes how extraordinary measures come to be accepted, it can appear to explain away or even quietly justify actions that deserve closer scrutiny, particularly when the theory offers little guidance on distinguishing a genuinely warranted response from an opportunistic exercise of institutional power. A further limitation is that the theory's emphasis on language and framing can draw attention away from the material and structural conditions, such as funding constraints or resource shortages, that also shape how institutions respond to perceived threats. These strengths and limitations become clearer when the theory is applied to the specific pressures facing public universities. Consider student unrest first. Administrators do not always treat protest activity as an ordinary expression of student concern; at times, they instead cast it as

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a challenge to institutional order, a framing that supports heightened surveillance, tighter restrictions on assembly, or stronger disciplinary responses. Mulvey (2025) traces a similar pattern within Chinese higher education, where dissenting activity and independent academic engagement have been steadily folded into the language of national and institutional security, giving administrators grounds to adopt measures that would otherwise sit outside normal university practice.

Cybercrime follows a related logic, though the referent object shifts from public order to institutional and data integrity. Breaches of university networks are seldom discussed purely as technical failures; they are more often presented as existential risks to the institution's data, research output, and reputation. This framing carries practical consequences, since it is often what allows universities to justify emergency spending, expedited procurement, or administrative controls that bypass the slower approval processes typically required. Mustaffa et al. (2025) develop this argument in their discussion of cyberspace as a distinct security sector, showing how networks, institutions, and individual users become objects that are rendered insecure primarily through discourses of urgency rather than through the technical severity of any single incident. Political interference illustrates the theory's two-directional character particularly well. University leadership can securitize outside political pressure, presenting it as a threat to institutional autonomy in order to resist external encroachment, while political actors can just as easily securitize campus activity itself, portraying student or faculty conduct as a danger that justifies state involvement. Mulvey's (2025) account of ideological securitization in Chinese universities offers a useful comparison here, demonstrating how both dissent and international academic collaboration can be drawn into the orbit of state security concerns once framed in those terms. Health-related disruptions round out the picture, showing how quickly an issue can move from

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routine management into emergency governance once securitized. The COVID-19 pandemic remains the clearest recent illustration of this shift. Rather than being treated solely as a matter for ordinary public health administration, the virus was widely constructed as an existential threat, a framing that Hapal (2021) links directly to the justification for university closures and other extraordinary containment measures that went well beyond what standard health policy would typically require.

These applications explain why Securitization Theory occupies a central place in this study. It offers a conceptual basis for examining how leaders, decision makers, and stakeholders within public universities in Nairobi County come to treat unrest, cybercrime, political pressure, and health crises as existential dangers warranting extraordinary responses. What the theory contributes beyond a simple review of formal security policy is close attention to the discursive work through which these issues are framed and communicated in the first place, work that shapes not only how institutions respond but also what avenues remain open for academic freedom and stakeholder participation once a response has been set in motion. Despite the methodological and normative concerns raised against it (Baele & Thomson, 2025), the theory therefore provides the conceptual anchor for this study's central concern: understanding how security governance in public universities emerges not from objective threat conditions alone, but from the socially constructed process through which those threats come to be recognized and acted upon.

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2.2 Empirical Review of Literature

2.2.1 Leadership Structures and Security Management

A recurring theme across the studies is that leadership quality and organizational culture are central to how institutions prepare for and manage security threats. There is broad agreement that

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leadership shapes downstream security outcomes: Al Othmani (2025) links administrative leadership to knowledge transfer and skills development, finding a positive relationship between leadership practice and preparedness for security roles, while Moraru (2025) similarly finds that organizational culture and policy significantly determine security effectiveness within military institutions. Studies on public universities in Nairobi County extend this by showing that organizational culture, career planning, and performance measurement shape governance effectiveness, with government policy acting as a moderating factor that channels these influences into physical, cyber, and emergency-preparedness outcomes. These studies converge on the view that leadership does not act on security outcomes directly but through the organizational and policy environment it creates.

Nevertheless, Bwese et al. (2025) narrow the focus to individual leadership style, finding that transformational, transactional, and democratic styles improve conflict management while autocratic leadership undermines it, reflecting an individual-level conception of leadership. Jumanne et al. (2023) shift the lens again, treating leadership as a strategic-legal function shaped by legal constraints in devolved county government systems. Linturi and Wilson (2021) narrow further still, isolating coordination of security activities as the operative mechanism behind police performance. Across these four strands, leadership is treated inconsistently, sometimes as an individual trait, sometimes as an institutional-cultural attribute, and sometimes as a single operational function, and none examine it as one component of a broader, multi-dimensional governance construct that also includes policy implementation, accountability, and stakeholder participation. This inconsistency, combined with the fact that none of these studies was conducted in university settings, is precisely the space this study occupies: it treats governance as a composite of leadership, policy implementation, accountability, and stakeholder participation, and examines

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how these interact, with government policy serving as a moderator, to shape security management in the decentralized, multi-stakeholder environment of Public Universities in Nairobi County.

The settings in which governance and security management have been examined together are uniformly hierarchical, centralized institutions: the military (Moraru, 2025), a hierarchical public institution (Bwese, Gambo & Ajekigbe, 2025), devolved county governments (Jumanne, Njoroge & Moi, 2023), and centralized police organizations (Linturi & Wilson, 2021). Universities differ from all of these along the dimensions that matter most for governance research: they operate under principles of academic freedom, regulatory oversight, and institutional independence, and their decision-making is distributed across multiple stakeholder groups rather than concentrated in a single chain of command. None of the reviewed studies tests whether the relationship established between governance and security management in centralized, hierarchical settings holds in a decentralized, multi-stakeholder one, a gap this study is positioned to close. Across the studies, governance is operationalized narrowly and inconsistently: as individual leadership style (Bwese et al., 2025), as legal-strategic constraint (Jumanne et al., 2023), or as a single operational function such as coordination (Linturi & Wilson, 2021). Similarly, the outcome variable is narrowed in each case to conflict management, strategic leadership practice, or police performance, rather than conceptualized as the multi-dimensional construct of security management (crime prevention, emergency preparedness, and access control) it represents in practice. No study conceptualizes governance as a composite of leadership, policy implementation, accountability, and stakeholder participation acting jointly on security management, nor tests government policy explicitly as a moderator of that relationship. Additionally, the existing evidence is drawn from military institutions, hierarchical public agencies, devolved county governments, and police organizations, all settings that are centralized and single-stakeholder by design. None examine governance and

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security management within universities, where academic freedom, regulatory complexity, and decentralized, multi-stakeholder decision-making structures fundamentally alter how leadership, policy, and accountability translate into security outcomes. Findings from centralized institutional contexts cannot be assumed to generalize to this setting.

The reviewed studies vary widely in method and rigour, and none combine a nationally representative sample of universities with structured survey instruments, descriptive and inferential statistics, and formal reliability and diagnostic checks. Several rely on single-institution or single-sector samples, limiting both the precision of the governance and security management relationship they estimate and the extent to which it can be generalized across a national higher-education system. Further, none of the reviewed studies tests government policy as a moderating variable in the relationship between governance mechanisms and security management outcomes; where policy appears at all, it is treated as an antecedent condition (a legal constraint on strategy) rather than as a variable that strengthens or weakens the translation of governance into security outcomes. This leaves the theoretical relationship between governance, policy, and security management in higher education institutions unspecified.

These gaps show that current knowledge of governance and security management is fragmented across narrow conceptualizations, centralized-institution contexts, and inconsistent methods, with no integrated theoretical account of how policy moderates the relationship between governance and security management. By treating governance as a composite construct (leadership, policy implementation, accountability, stakeholder participation), testing government policy as a moderator, and applying a descriptive, cross-sectional design with structured surveys, descriptive and inferential statistics, and reliability and diagnostic checks to a nationally representative sample of Public Universities in Nairobi County, this study addresses the conceptual, contextual,

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methodological, and theoretical gaps identified above and provides the first holistic, university-specific account of how governance mechanisms shape physical security, cybersecurity, and emergency preparedness in higher education.

2.2.2 Policy Formulation, Implementation and Security Management

Across institutional settings, the studies agree that policy establishes the framework within which security management operates, and that its formulation and implementation are central to translating strategic intent into operational readiness. This holds whether policy is examined through institutional design and technology adoption, as in Abdulhaleem (2025), through its direct influence on sustaining learning environments, as in Nwile (2022), through the coherence between policy text and implementing procedures, as in Tshimanika, Chigona, and Sadeck (2022), or through the technological capability, namely data analytics, that policy enables, as in Makori, Oleche, and Kimuyu (2024). Within this shared premise, each study also points to the same underlying weakness: policy alone, however well designed, proves insufficient without complementary institutional mechanisms. Abdulhaleem (2025), surveying 368 national security personnel, found that centralized structures supported strategic coherence, yet coordination remained suboptimal, only 48.6 % of personnel had received training, and artificial intelligence adoption stood at just 47.0 %. Nwile (2022) linked the quality of policy formulation and implementation directly to sustainable learning environments in public secondary schools. Tshimanika, Chigona, and Sadeck (2022) identified inconsistencies between the stated intent of South Africa's White Paper 7 and the procedures meant to implement it, which constrained ICT use in teaching. Makori, Oleche, and Kimuyu (2024), applying Open Systems Theory, showed that data analytics strengthened Kenya's national security strategy by enabling real-time

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environmental scanning and adjustment to socio-political and technological shifts. Together, these findings establish policy as an enabling or constraining condition for security management, a foundation this study builds on by testing government policy explicitly as a moderating variable rather than as a standalone driver of outcomes.

However, Abdulhaleem (2025) foregrounds structural and technological readiness within national security personnel, leaving governance processes such as leadership and stakeholder participation unexamined. Nwile (2022) isolates policy formulation and implementation in secondary schools without addressing coordination, accountability, or stakeholder involvement. Tshimanika et al (2022) work at the level of the policy text itself, evaluating internal consistency rather than institutional implementation or governance structure. Makori, Oleche, and Kimuyu (2024) concentrate on the technological capability that policy enables rather than on policy or governance mechanisms directly. This progression, from structural readiness, to policy formulation, to policy text coherence, to technological capability, shows that the literature has approached policy's role in security management from increasingly narrow technical angles, without integrating it with the wider governance mechanisms of leadership, accountability, and stakeholder participation that the current study treats as jointly influential. Moreover, each of the study was conducted within a centralized, hierarchical, single stakeholder setting, national security agencies, secondary schools, or a national government ministry, and none within a university, where governance authority is distributed among multiple stakeholder groups operating under academic freedom and institutional autonomy. Findings drawn from centralized, single stakeholder settings cannot be assumed to hold in the decentralized, multi-stakeholder environment that characterizes Kenyan universities.

Policy is consistently conceptualized in isolation, as structural and technological readiness

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(Abdulhaleem, 2025), as formulation and implementation alone (Nwile, 2022), as internal textual consistency (Tshimanika et al., 2022), or as a driver of technological capability (Makori, Oleche & Kimuyu, 2024), rather than as one governance mechanism that interacts with leadership, accountability, and stakeholder participation. None of the reviewed studies conceptualize government policy as a variable that moderates the relationship between these broader governance mechanisms and institutional security management. Additionally, reviewed evidence is drawn from national security agencies, public secondary schools, and a national government ministry, all centralized and single stakeholder in structure. None examine policy and security management within universities, where multiple stakeholder groups, academic freedom, and institutional autonomy shape how policy is formulated, implemented, and enforced. Findings from these centralized contexts cannot be generalized to a decentralized, multi-stakeholder higher education setting. Furthermore, the methods used across these studies limit generalizability and rigour. Nwile (2022) relied on a correlational design, a teacher-only sample, and simple regression without reliability or diagnostic testing. Tshimanika et al. (2022) used a qualitative historical, document-based approach with no cross-sectional or multi-institutional data and no statistical validation. Abdulhaleem (2025) and Makori et al. (2024) drew on specialized, sector-specific samples rather than a stratified, multi-institutional one. None combine a nationally representative, stratified sample with descriptive and inferential statistics and formal reliability and diagnostic testing, as the current study does across 15 Kenyan universities. Moreover, no reviewed study tests government policy as a moderating variable linking governance mechanisms to security management outcomes. Where a theoretical frame is used at all, as with Open Systems Theory in Makori et al. (2024), it explains strategic responsiveness at the national level rather than the institutional relationship between governance, policy, and security management that this study

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investigates. The moderating role of government policy within institutional, multi-stakeholder governance therefore remains theoretically unspecified.

These gaps show that existing research treats policy narrowly and in isolation, is confined to centralized, single-stakeholder settings, relies on limited or non-generalizable methods, and offers no theoretical account of policy as a moderator of the governance and security management relationship. By adopting a descriptive cross-sectional design across 15 stratified public universities in Kenya, surveying senior administrators and security personnel, applying descriptive and inferential statistics with Cronbach's Alpha reliability and diagnostic testing, and modeling government policy as a moderating variable within a broader governance framework of leadership, accountability, and stakeholder participation, this study addresses the conceptual, contextual, methodological, and theoretical gaps identified above and offers the first empirically grounded, university-specific account of how policy shapes institutional security management.

2.2.3 Accountability, Oversight Mechanisms and Security Management

A further strand of the literature converges on accountability and oversight as governance instruments that curb the misuse of authority and improve institutional performance, though it examines this claim in markedly different domains. Joshi (2025) argues that autonomous generative AI systems in government and enterprise require multi-level governance instruments, compliance automation, risk assessment, and observability systems to sustain transparency, accountability, and risk management. Alapishvili (2024), studying Georgia's national security sector reform, similarly emphasizes that parliamentary oversight and independent institutions are essential to democratic accountability and to curbing the abuse of power. Korir and Cornelius (2024) found a positive and significant relationship between procurement accountability and

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procurement quality in the Kitui County Government, with transparency, cost efficiency, and value for money most strongly associated with accountability. Gitahi (2024), examining accountability in Kenya's implementation of the Sustainable Development Goals, likewise reports governance reforms that have supported progress while accountability gaps persist.

Across an AI governance framework, a national security sector, a county procurement system, and a national development agenda, the shared conclusion is that accountability mechanisms, however structured, are a necessary condition for governance to function as intended.

The studies diverge sharply, however, on what they treat accountability as and at what level it operates. Joshi (2025) conceives of accountability primarily as a technical and automated property of a system, built through compliance automation and observability, rather than as a relationship between people and institutions, and offers no empirical test linking these mechanisms to security outcomes. Alapishvili (2024) treats accountability as a function of legislative and constitutional oversight at the level of the state, a macro, state-centered view that leaves internal organizational mechanisms, leadership, coordination, and stakeholder involvement unexamined. Korir and Cornelius (2024) narrow accountability to a single explanatory variable within procurement, tested through bivariate analysis that cannot capture its interaction with other governance mechanisms. Gitahi (2024) treats accountability at the broadest policy level, describing national governance reform without empirically testing how specific mechanisms relate to institutional outcomes. None of the four treats accountability as one of several governance mechanisms, alongside leadership, policy implementation, and stakeholder participation, that interact to jointly shape institutional outcomes, which is the approach the current study adopts.

Additionally, the studies also share a contextual limitation that mirrors this conceptual narrowness.

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Joshi (2025) is set in technology governance rather than any single organization; Alapishvili (2024) is set at the level of the state; Korir and Cornelius (2024) are set within a hierarchical county government; and Gitahi (2024) is set at the level of national policy. None examine accountability within a decentralized, multi-stakeholder institution such as a university, where autonomy, academic freedom, and diverse security threats require accountability to operate alongside, rather than in place of, leadership, policy, and stakeholder participation.

Accountability is conceptualized narrowly and inconsistently across the reviewed studies: as a technical, automated system property (Joshi, 2025), as legislative and constitutional oversight (Alapishvili, 2024), as a single explanatory variable in procurement (Korir & Cornelius, 2024), or as a feature of national policy reform (Gitahi, 2024). None conceptualize accountability as one component of a composite governance construct that interacts with leadership, policy implementation, and stakeholder participation to shape institutional security management outcomes. Additionally, the reviewed evidence spans technology governance frameworks, a national security sector, a county government procurement system, and national development policy, contexts that are either technical, state-level, or hierarchically centralized. None examine accountability within a university, where governance is distributed among multiple stakeholder groups operating under institutional autonomy and academic freedom. Findings from these centralized or technical settings cannot be assumed to hold in a decentralized higher education context.

Furthermore, Joshi (2025) and Gitahi (2024) remain descriptive and offer no empirical test of the relationships they discuss. Korir and Cornelius (2024) rely on bivariate analysis, which cannot capture interaction or moderating effects among governance variables. Alapishvili (2024) draws on a macro, state-level case analysis rather than primary, multi-institutional data. None combine

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a stratified, multi-institutional sample with multiple regression analysis and reliability and diagnostic testing, as the current study does across public universities in Nairobi County. In addition, none of the reviewed studies tests government policy as a moderating variable linking accountability, or the wider set of governance mechanisms, to security management outcomes. Where a framework is applied, as with the multi-level governance instruments in Joshi (2025) or the oversight model in Alapishvili (2024), it explains accountability within a technical system or a national political structure rather than the institutional relationship between governance mechanisms and security management that this study investigates.

These gaps show that accountability has been studied as a technical system property, a legislative function, a single procurement variable, or a feature of national policy, in settings that are technical, state-level, or hierarchically centralized, using methods that stop short of multivariate, institution-level testing, and without a theoretical account of how government policy moderates its effect. By treating accountability as one part of a composite governance construct together with leadership, policy implementation, and stakeholder participation, testing government policy as a moderating variable, and applying a descriptive cross-sectional design with primary data, multiple regression analysis, and reliability and diagnostic checks across public universities in Nairobi County, this study addresses the conceptual, contextual, methodological, and theoretical gaps identified above and provides an empirically grounded, university-specific account of how accountability shapes institutional security management.

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2.2.4 Stakeholder Participation and Security Management

The literature consistently finds that stakeholder involvement strengthens security and project outcomes, though studies examine this relationship at very different levels and in very different

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settings. James (2022) shows that insufficient coordination between managers and contractors in Pakistan produces substandard security effects, indicating that the absence of stakeholder coordination is itself a source of risk. Brazova (2021), examining civil security governance across 22 Central and Eastern European countries, similarly found that multi-stakeholder, inclusive governance is essential given the complexity of civil security threats, and used hierarchical cluster analysis to identify stakeholder involvement patterns shaped by geography and culture. Dakane and Mutuku (2023), drawing on stakeholder, realistic evaluation, and systems theories, established that stakeholder participation improves project performance by enhancing coordination, communication, and resource mobilization, aligning project activities with stakeholder expectations. Daud, Thinguri, and Mugwe (2022) reached a parallel conclusion in a different setting, finding that stakeholder engagement in public secondary schools improved disaster preparedness, accountability, and security practices. Across a construction project, a 22-country governance comparison, an irrigation project, and a set of secondary schools, the consistent finding is that stakeholder participation contributes positively to security and performance outcomes.

James (2022) treats coordination as a project management concern between two parties, managers and contractors, without situating it within leadership, policy, or accountability structures. Brazova (2021) operates at the macro, cross-national level, using secondary data to classify governance patterns rather than evaluating organizational-level practices or measurable security outcomes, and, by her own account, leaves out contextual moderators such as national policy or institutional autonomy. Dakane and Mutuku (2023) confine stakeholder participation to a single irrigation project, leaving leadership, accountability, policy enforcement, and coordination mechanisms unaddressed. Daud et al.(2022) narrow the setting further to public secondary schools within one county, where control is largely centralized. None of the four treats stakeholder participation as

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one mechanism among several- leadership, policy, accountability, and coordination- operating jointly within a single institutional governance system, which is the approach the current study takes. Accordingly, the four studies are set within short-term hierarchical construction projects, macro-level cross-country comparisons built on secondary data, a single irrigation project, and centrally controlled public secondary schools in one county. None examine a decentralized, multi-stakeholder institution such as a university, where senior administrators, security personnel, faculty, and students all hold a governance stake, and where the effect of stakeholder participation on security management has not been tested directly.

However, stakeholder participation is consistently isolated from the other governance mechanisms it operates alongside. James (2022) and Dakane and Mutuku (2023) treat it as a project management input to coordination and resource mobilization, Brazova (2021) treats it as a descriptive, taxonomic feature of national governance systems, and Daud et al. (2022) treat it as a single antecedent of disaster preparedness. None conceptualize stakeholder participation as one component of a composite governance construct that also includes leadership, policy implementation, and accountability, jointly shaping institutional security management. In addition, reviewed evidence comes from a construction project in Pakistan, a 22-country cross-national comparison, a single irrigation project, and public secondary schools in one Kenyan county, settings that are either short-term and hierarchical or centrally controlled. None examine stakeholder participation within a university, where governance is distributed across multiple, often competing, stakeholder groups operating under academic freedom and institutional autonomy. Findings from projects, cross-national taxonomies, and centralized schools cannot be assumed to hold in this setting.

Furthermore, Brazova (2021) relies on secondary data and hierarchical cluster analysis rather than

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direct measurement of organizational security outcomes. James (2022) and Dakane and Mutuku (2023) draw on single project settings without reliability or diagnostic testing. Daud et al. (2022) is confined to a single county's secondary schools. None employ a stratified, multi-institutional sample with descriptive and inferential statistics and formal reliability and diagnostic checks, as the current study does across 15 Kenyan universities, surveying senior administrators and security personnel. Moreover, none of the reviewed studies tests government policy or institutional autonomy as a moderating condition on the relationship between stakeholder participation and security outcomes, despite Brazova (2021) explicitly naming such contextual moderators as unaddressed in her own work. The theoretical frameworks applied, stakeholder theory, realistic evaluation, and systems theory in Dakane and Mutuku (2023), explain project-level performance rather than the institutional relationship between governance mechanisms, government policy, and security management that this study investigates.

These gaps show that stakeholder participation has been studied as an isolated input to project or school-level outcomes, within short-term, hierarchical, or centralized settings, using methods that stop short of institutional, multi-site measurement, and without a theoretical account of how government policy moderates its effect. By treating stakeholder participation as one part of a composite governance construct together with leadership, policy implementation, and accountability, testing government policy as a moderating variable, and applying a descriptive cross-sectional design with structured surveys, descriptive and inferential statistics, and reliability and diagnostic checks across 15 Kenyan universities, this study addresses the conceptual, contextual, methodological, and theoretical gaps identified above and provides the first holistic, university-specific account of how stakeholder participation shapes institutional security management.

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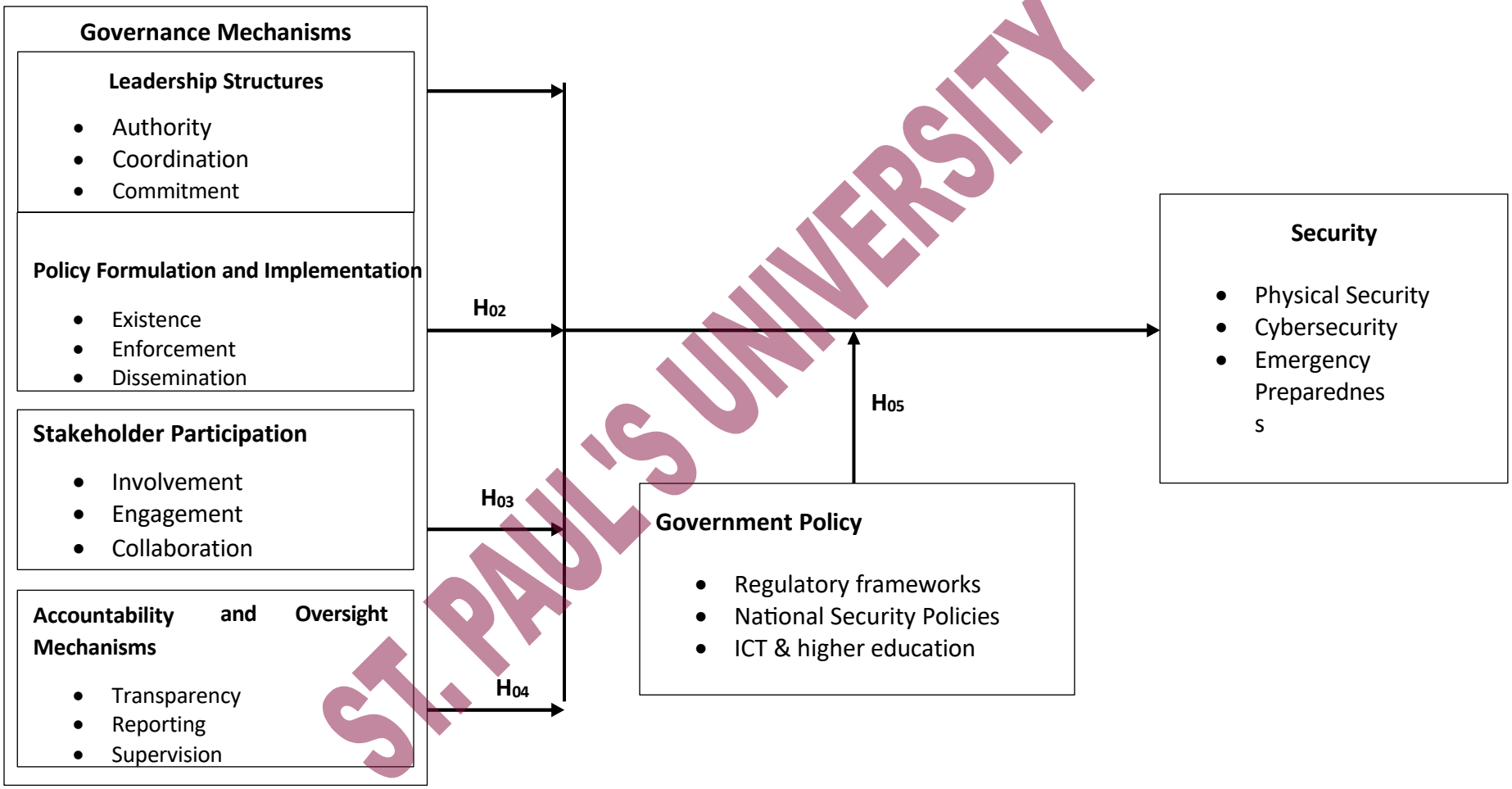
2.3 Conceptual Framework

Figure 1 shows the conceptual framework where governance mechanisms are identified as key enablers of the effectiveness of security in Kenyan universities. The four dimensions of the governance mechanisms conceptualized are: leadership structure, policy making and policy operation, accountability and oversight mechanisms, and stakeholder participation. Leadership arrangements have an influence on security by way of authority, coordination and commitment; policy formulation and implementation have an influence on security through policy existence, dissemination and enforcement; accountability and oversight arrangements have an influence on security through transparency, reporting and supervision; and stakeholder participation impacts on security through engagement and collaboration between students, staff and external actors. Government policy is an intermediary between these governance mechanisms and the security management dimensions of crime prevention, emergency preparedness and access control, and when regulations are unclear, levels of compliance and whether policies are supported, the level of security management can be lowered or increased. Overall, the framework portrays a model which is dynamic in nature and interactive between the governance mechanisms and government policies and the effectiveness of the security management in Kenyan universities.

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Figure 1 Conceptual Framework



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Source: Researcher (2026)

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Table 1 Summary of Literature Review

Author(s) & Year	Focus of Study	Theory vs. Empirical Comparison	Conceptual Gap	Contextual Gap	Methodological Gap	Theoretical Gap	Focus of Current Study
Al Othmani (2025)	Leadership in security leadership development	Agency Theory supports integrated governance, but the study isolates leadership as a standalone variable.	Ignores the interaction of governance mechanisms.	Military/security institutions in the UAE, not universities.	Single-variable correlation design.	Agency Theory's implication of integrated governance was not empirically tested; government policy was not tested as a moderator.	Integrated governance mechanisms and security management in Kenyan universities.
Moraru (2025)	Security culture in military institutions	Securitization Theory supports broader governance, but the study is culture-focused only.	No governance interaction analysis.	Military context, not applicable to universities.	Qualitative design only.	Securitization Theory's implications for governance interaction remain untested; no moderating variable examined.	Governance mechanisms and university security systems.
Bwese et al. (2025)	Leadership styles and conflict management	Leadership treated as an isolated variable with no integrating theory applied.	Ignores governance integration.	Public revenue institution context.	Single-level regression analysis.	No theoretical framework links leadership style to a composite governance-security	Institutional governance and security management outcomes.

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						relationship;	

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Author(s) & Year	Focus of Study	Theory vs. Empirical Comparison	Conceptual Gap	Contextual Gap	Methodological Gap	Theoretical Gap	Focus of Current Study
						moderating role of policy unexamined.	
Jumanne et al. (2023)	Legal factors in county governance	Institutional/Agency Theory suggests multi-governance, but the study focuses on legal factors only.	Governance mechanisms not integrated.	County government (political structure).	Limited variables and analysis scope.	Institutional/Agency Theory's multi-governance implications remain empirically untested; no moderator tested.	Governance mechanisms and security in universities with policy moderation.
Nwile (2022)	School security policy	Policy-only focus limits the governance view; no integrating theory applied.	Ignores leadership, accountability, and participation.	Secondary schools' context.	Simple regression only.	No theoretical integration of policy with other governance mechanisms; government policy not tested as a moderator.	Governance mechanisms and security in universities.
Tshimanika et al. (2022)	ICT policy implementation	No empirical governance testing conducted.	No governance-security linkage.	National policy level.	Qualitative, document-based design only.	No theoretical linkage established between policy coherence and institutional security governance.	Cross-sectional empirical governance-security analysis.

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Author(s) & Year	Focus of Study	Theory vs. Empirical Comparison	Conceptual Gap	Contextual Gap	Methodological Gap	Theoretical Gap	Focus of Current Study
Daud et al. (2022)	Stakeholder participation in schools	Stakeholder focus only; no integrating theory applied.	Governance integration missing.	Secondary schools.	No multiple regression analysis.	No theory links stakeholder participation to a broader governance-security framework; no moderator tested.	Integrated governance mechanisms in universities.
Linturi & Wilson (2021)	Coordination in police security	Coordination studied in isolation with no integrating theory applied.	Ignores other governance mechanisms.	Police hierarchical system.	Bivariate correlation only.	No theoretical account situates coordination within a composite governance-security model; no moderator examined.	Governance mechanisms and security management in universities.

Source: Researcher (2026)

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CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the research method used to study the influence of governance mechanisms on security management in public universities in Nairobi County. It describes the research design, population, sampling procedures, data collection, and data analysis procedures used. It also includes the reliability and validity findings; empirical model specification and ethical issues related to the study. The methodology aimed to provide empirical evidence for implications for security outcomes of governance mechanisms in HEIs in a complex urban and digitally connected context.

3.2 Research Design

The study used a descriptive cross-sectional design to investigate the governance mechanisms and their relationship with security management outcomes in five selected public institutions in Nairobi County. This research design was suitable because it collected data from one group of people, or a sample of the population, at one time and was appropriate for research questions about relationships between variables not manipulated by the researcher (Creswell, 2014). The cross-sectional approach was suitable for describing the situation as at the time of the study and for investigating naturally occurring relationships between variables in institutional contexts (Saunders et al., 2019). The design focused on the impact of governance elements – leadership, policy making, accountability, and stakeholder engagement – on security management outcomes, which included access control, crime prevention and emergency preparedness. The descriptive cross-sectional design also enabled making comparisons of the responses of the respondents with respect to various types of respondent like administrators, security personnel, ICT personnel, etc., which gave a wider perspective on the governance and security concerns in the institutions. This design was also preferred in terms of

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its cost-effectiveness and time efficiency and thus further contributed to the practicality of the study objectives.

3.3 Target Population

The study population consisted of all the public universities in Nairobi County, namely University of Nairobi, Kenyatta University, Jomo Kenyatta University of Agriculture and Technology, Technical University of Kenya, Multimedia University of Kenya and Co-operative University of Kenya. The study centered on governance mechanisms and security management at the institutional level where the institution was the unit of analysis. The unit of observation was the staff responsible for day-to-day governance and security functions, making up the sampling frame. The study examined the section heads, departmental administrators, security supervisor(s), security officers, ICT officers and employees in student affairs offices. These respondents were identified as being more accessible and closer to the governance and security practice and therefore more reliable and practical sources of information regarding the impacts of governance mechanisms on security management in public universities in Nairobi County.

3.3.1 Accessible Population

The study utilized a purposive sampling method whereby allocations were done proportionately among the six public universities in Nairobi County, which include the University of Nairobi, Kenyatta University, Jomo Kenyatta University of Agriculture and Technology, Technical University of Kenya, Multimedia University of Kenya and Co-operative University of Kenya. To ensure representation and comparability, each institution was considered a single stratum for the analysis of governance mechanisms and security management practices. In each of the selected universities, purposive sampling was used to select respondents. This included key informants such as security officers, ICT/cybersecurity personnel, student affairs officers, and departmental administrators, who were selected

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based on their involvement in their organization and their knowledge of governance processes and structures, to ensure that the data collected were relevant and reliable. A total of 15 respondents from each of the two universities participated in the study, giving a sample of N = 90. This approach ensured balanced results and prevented any single university from unduly influencing the findings, since each participating university was subject to the same regulations and faced the same governance and security issues. Slovin's formula could not be used because the study population was finite and well defined, being the target population of all public universities in Nairobi County. Given that the key informants were identified through purposive sampling, probability-based methods of sample size determination were not applicable. To ensure methodological consistency throughout the study and collect detailed data for analysis, the study instead employed a systematic and proportionate sampling method.

3.4 Sampling Procedure and Sample Size

This study adopted a purposive sampling technique, allocating participants proportionally across the six public universities in Nairobi County: the University of Nairobi, Kenyatta University, Jomo Kenyatta University of Agriculture and Technology, Technical University of Kenya, Multimedia University of Kenya, and Co-operative University of Kenya. Each institution was treated as a single stratum to ensure representation and comparability in the analysis of governance mechanisms and security management practices. Respondents within each university stratum were selected using purposive sampling. This included key informants such as security officers, ICT/cybersecurity personnel, student affairs officers, and departmental administrators, who were selected based on their involvement in their organization and their knowledge of governance processes and structures, to ensure that the data collected were relevant and reliable. The study included 15 respondents from each university, for a total of 90 respondents (N = 90). This approach ensured that the results were

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balanced and that no single university had a disproportionate effect on the outcome, as all participating universities were subject to the same regulations and faced comparable governance and security issues. Slovin's formula was not applied, as the study population was the target population of all public universities in Nairobi County, which constituted a finite and well-defined population. Key informants were selected using purposive sampling of university administrators and security personnel; therefore, probability-based methods of sample size determination were not applicable. A systematic and proportionate sampling method was instead used to gather detailed data for analysis and to maintain methodological consistency throughout the study.

3.5 Data Collection Instrument and Procedure

3.5.1 Data Collection Instrument

The data was collected from the respondents holding key governance and security positions in the six public universities of Nairobi County using a structured questionnaire. This group included student affairs officers, academic administrators, security officers, IT/cybersecurity personnel, and other departmental personnel. Data were gathered at the individual level but analyzed in terms of institutional governance and security management practices. The questionnaire consisted of two sections: Part A collected information about the demographics and professional background, such as employment title, department, and number of years of experience. Part B was made up of items that required a Likert response and some open-ended questions to evaluate how well the governance mechanisms of security management (i.e., leadership, policy development and execution, accountability, and stakeholder engagement) affect the security management outcomes (physical security, cybersecurity, and emergency preparedness).

3.5.1 Data Collection Procedure

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Data collection was carried out through drop-off and pick-up, personal administration and email distribution, depending on the availability of respondents at each institution. Follow-up contact was undertaken to increase the responses and completion of the questionnaires. To confirm the validity and reliability of the data collection instrument, the instrument was pre-tested in three universities that were not part of the study population. The findings of this pilot study were applied to clarify items that were unclear, to streamline the wording of items, and to ensure consistent interpretation before the main data collection exercise.

3.6 Operationalization of Study Variables

Operationalization is the process by which abstracted theoretical constructs are converted into indicators, which can be obtained by a research instrument. This section describes the operationalization of each of the variables listed in the conceptual framework into specific indicators and the measurement of each indicator with items from the questionnaire. The indicators were translated into statements on the Likert scale ranging from Strongly Disagree (1) to Strongly Agree

(5). A summary of the operationalization of the study variables is presented below in Table 2.

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Table 2 ***Operationalization of the Study Variables***

Construct (Variable)	Dimension	Operational Definition	Measurement Indicators	Measurement Scale
Leadership Structures	Authority	Degree to which university leadership exercises legitimate decision-making authority over security matters.	Clarity of authority, chain of command, decision-making effectiveness	5-point Likert Scale
	Coordination	Extent to which institutional leaders coordinate security-related activities across departments.	Coordination meetings, interdepartmental collaboration, communication effectiveness	5-point Likert Scale
	Commitment	Degree of leadership support for security management.	Resource allocation, leadership involvement, management support	5-point Likert Scale
Policy Formulation and Implementation	Existence	Availability of formal institutional security policies.	Presence of written policies, policy adequacy	5-point Likert Scale
	Enforcement	Degree to which security policies are implemented and enforced.	Compliance monitoring, enforcement consistency	5-point Likert Scale
Construct (Variable)	**Dimension**	**Operational Definition**	**Measurement Indicators**	**Measurement Scale**

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	Dissemination	Extent to which security policies are communicated.	Policy awareness, communication channels, training	5-point Likert Scale
Stakeholder Participation	Involvement	Degree of stakeholder representation in governance processes.	Representation, participation in committees	5-point Likert Scale
	Engagement	Extent of active stakeholder participation.	Attendance at meetings, consultations, feedback	5-point Likert Scale
	Collaboration	Degree of joint action among stakeholders.	Joint initiatives, teamwork, shared decision-making	5-point Likert Scale
Accountability and Oversight Mechanisms	Transparency	Degree to which governance decisions are openly communicated.	Information disclosure, transparency of decisions	5-point Likert Scale
	Reporting	Existence of formal reporting systems.	Frequency of reports, reporting procedures	5-point Likert Scale

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Construct (Variable)	Dimension	Operational Definition	Measurement Indicators	Measurement Scale
	Supervision	Extent of oversight over governance and security activities.	Supervisory reviews, monitoring, corrective actions	5-point Likert Scale
Government Policy (Moderator)	Regulatory Framework	Extent to which national regulations support governance and security.	Compliance with higher education regulations, ICT regulations, and security legislation	5-point Likert Scale
	National Security Policies	Degree of implementation of government security policies.	Alignment with national policies, policy support	5-point Likert Scale
Security Management (Dependent Variable)	Physical Security	Effectiveness of physical protection measures.	CCTV coverage, access control, security personnel, incident reduction	5-point Likert Scale
	Cybersecurity	Effectiveness of information systems protection.	Cyber incident management, cybersecurity controls, system protection	5-point Likert Scale
	Emergency Preparedness	Institutional readiness to respond to emergencies.	Emergency plans, drills, response capability, staff preparedness	5-point Likert Scale

Source: Researcher (2026)

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3.7 Data Analysis and Presentation

Descriptive and inferential statistical methods were used to analyze the data, with the help of SPSS software. This approach was appropriate for Quantitative Research, as the data collected from participants in the Cross-sectional survey conducted at six public universities in Nairobi County were most applicable.

3.7.1 Descriptive Analysis

Descriptive statistics was used to summarize the data effectively to identify the nature of the respondents and the nature of the study variables. Key measures, such as frequencies, percentages, means and standard deviations, enabled profiling of respondents and provided a holistic understanding of the governance mechanisms explored, such as leadership, policy implementation, accountability and stakeholder involvement. In addition, these statistics were used to gain insight into security management outcomes, specifically physical security, cyber security and emergency preparedness in the selected universities.

3.7.2 Inferential Analysis

The study hypotheses were evaluated and tested utilizing inferential statistics. Pearson correlation analysis was employed to determine the strength and direction of the association between governance mechanisms and security management. Furthermore, multiple regression analyses were conducted to examine the individual effect of each governance mechanism and the combined effect in the selected universities on security management. Further, moderation analysis was carried out using an interaction model to assess the impact of Government policy on the relationship between Governance mechanisms and Security management. The 95% confidence level ($\alpha = 0.05$) was used for testing all hypotheses. The general regression equation was thus set up:

$$\mathbf{Y=\beta0+\beta1X1+\beta2X2+\beta3X3+\beta4X4+\beta5Z+\beta6(XZ)+\varepsilon}$$

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Where:

Y = Security management; X1 = Leadership structure; X2 = Policy implementation; X3 = Accountability mechanisms; X4 = Stakeholder participation; Z = Government policy (moderator); XZ

= Interaction term; β0 = Constant term; β1–β6 = Regression coefficients; ε = Error term.

3.7.3 Research Hypotheses and Decision Rule

Based on the specific objectives of the study, the following null hypotheses were tested based on the regression coefficients of the model above. The hypotheses were tested at a 95% confidence level (significance level $\alpha = 0.05$, two-tailed). The decision rule used was the same for all hypotheses: the null hypothesis was rejected if the p-value for the hypothesis was less than 0.05, meaning that the hypothesis was statistically significant at the 95% level; if the p-value was equal to or greater than 0.05, the study did not reject the null hypothesis, and the hypothesis was not considered statistically significant at the 95% level.

H_{01}: Leadership structures had no statistically significant influence on security management in public universities in Nairobi County. Tested using the coefficient β1; the null hypothesis was rejected if $p < 0.05$ (95% confidence level).

H_{02}: Policy formulation and implementation had no statistically significant effect on security management in public universities in Nairobi County. Tested using the coefficient β2; the null hypothesis was rejected if $p < 0.05$ at the 95% confidence level.

H_{03}: Accountability and oversight mechanisms had no statistically significant influence on security management in public universities in Nairobi County. Tested using the coefficient β3; the null hypothesis was rejected if $p < 0.05$ at the 95% confidence level.

H_{04}: Stakeholder participation had no statistically significant influence on security management in public universities in Nairobi County. Tested using the coefficient β4; the null

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hypothesis was rejected if $p < 0.05$ (95% confidence level).

H_{05}: Government policy had no statistically significant moderating effect on the relationship between governance mechanisms and security management in public universities in Nairobi County. Tested using the interaction term coefficient β6 in the moderated regression model; the null hypothesis was rejected if $p < 0.05$ (95% confidence level).

3.7.4 Diagnostic Tests

To strengthen and validate the regression results, several diagnostic tests were conducted in line with the statistical assumptions of correlation and multiple regression analysis. The independent variables, namely leadership structure, policy implementation, accountability mechanisms and stakeholder participation, were assumed to have a linear relationship with security management outcomes, which was checked through the use of scatter plot diagnostics. The normal distribution of the residuals was also assumed and verified by the Shapiro–Wilk test, a Q–Q plot and a histogram check. Residual plots were used to test the assumption of homoscedasticity (consistency of the variance of error terms across levels of the independent variables) and to ensure that this assumption was not violated. The data were cross-sectional, and respondents' answers were not systematically related to each other. Besides, the study assumed that there is no serious multicollinearity in the independent variables, which was verified by Variance Inflation Factor and Tolerance statistics to avoid regression results being distorted. Additional diagnostics involved the Durbin–Watson statistic, which was used for assessing the residuals for autocorrelation, and the Breusch–Pagan test, which was used to check for heteroscedasticity. The normality and distribution of the residuals were also checked graphically. Lastly, the values of R^2, Adjusted R^2 and the F-statistic were used to measure the overall significance and fit of the regression model, to assess the adequacy and explanatory power of the model.

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Table 3 Summary of Diagnostic Tests

Diagnostic Test	Purpose	Statistical Test/Method	Decision Criterion
Linearity	To determine whether a linear relationship exists between the independent and dependent variables.	Scatter plots	A linear pattern should be evident between the variables.
Normality	To determine whether the residuals are normally distributed.	Shapiro–Wilk test, Q–Q plot and Histogram	Fail to reject H_0 if $p > 0.05$, indicating normally distributed residuals.
Homoscedasticity	To determine whether the variance of the residuals remains constant across observations.	Residual plots and Breusch–Pagan test	Fail to reject H_0 if $p > 0.05$, indicating constant error variance.
Independence of Observations	To determine whether observations are independent.	Study design (cross-sectional survey)	Observations should be independent.
Multicollinearity	To determine whether the independent variables are highly correlated.	Variance Inflation Factor (VIF) and Tolerance	VIF < 10 and Tolerance > 0.10 indicate the absence of multicollinearity.
Autocorrelation	To determine whether residuals are serially correlated.	Durbin–Watson statistic	Durbin–Watson statistic between 1.5 and 2.5 indicates no autocorrelation.
Model Fitness	To determine the overall significance and adequacy of the regression model.	F-statistic	A statistically significant F-statistic ($p < 0.05$) indicates that the model fits the data.

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Explanatory Power	To determine the proportion of variation in the dependent variable explained by the independent variables.	R^2 and Adjusted R^2	Higher R^2 and Adjusted R^2 values indicate greater explanatory power.

Source: Researcher (2026)

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Reliability and Validity

3.8.1 Reliability

Reliability is the stability and consistency of the research instrument in measuring the variables of the research. The instrument was reliable based on Cronbach's Alpha Coefficient criterion with an acceptable value of 0.70. All constructs in the questionnaire, such as governance mechanisms, institutional security management, and government policy, were included in the assessment. Items that measured the same construct had high alpha values, which suggested good internal consistency of items and reduced random measurement error. The results of the reliability analysis were taken into consideration in refining the wording of the questionnaire's items before the main data collection exercise, which would help to ensure consistency and clarity of the data collected.

3.8.2 Validity

The reliability of the construct measurement in the research instrument was crucial to the study. The content validity was carried out by conducting a thorough literature search and matching each item of the questionnaire with the objectives, variables, and theoretical framework of the study. A further review was carried out by academic supervisors and subject-matter professionals to ensure that the instrument was able to capture the governance measures, security management dimensions and the variables related to the policy under investigation. Construct validity was achieved by using an existing measurement scale and correlating the variables to ensure consistency with the theory. The validity of the final research instrument was further strengthened through pilot testing which identified ambiguous and irrelevant items, thereby enhancing the accuracy and relevance of the research instrument.

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3.8.3 Pilot Test of the Research Instrument

The pilot study was conducted with 15 purposively selected respondents at Machakos University for a preliminary test of the questionnaire and the data collection instruments before the main study was conducted. The pilot yielded a 100% response rate, thus demonstrating the feasibility of the methodology proposed. It evaluated the clarity, reliability, validity, practicality and time for completion of the questionnaire. Reliability analysis was conducted using Cronbach's alpha, which yielded good to excellent internal consistency across all constructs ($\alpha = 0.816–0.902$), with an overall coefficient of reliability of 0.873; therefore, the instrument was appropriate for the main study. The content validity was determined by the expert, and face validity was determined by the respondents. The participants felt the questionnaire was clear, well organized and easy to complete and made a few suggestions for wording, technical terminology, question sequence and grammar. The main challenge encountered was limited access to some respondents due to the demonstrations of June 25, which affected staff availability; despite this, no major logistical or administrative problems were experienced. Minor refinements were made to the pilot findings, making it clearer, technical terms were simplified, instructions were streamlined, grammar was corrected, and the SPSS coding template was refined. There was no removal of any items on the questionnaires because all constructs had acceptable reliability. The reliability, validity and suitability of the research instrument for the main study was confirmed in the pilot study.

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3.8.4 Empirical Model

The study employed multiple linear regression with a moderation effect to determine the effect of governance mechanisms on security management in public universities in Nairobi County. The study added government policy as a moderating variable to explore its impact on the relationship between governance mechanisms and security management outcomes. An empirical model was

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proposed as:

$$SM=\beta0+\beta1LS+\beta2PI+\beta3AM+\beta4SP+\beta5GP+\beta6(GM\times GP) +\varepsilon$$

Where:

SM = Security Management LS = Leadership Structure PI = Policy Implementation

AM = Accountability Mechanisms SP = Stakeholder Participation GP = Government Policy

GM × GP = Interaction term GM = Governance Mechanisms

β_0 = Constant term

β_1–β_6 = Regression coefficients ε = Error term

In terms of operation, the model takes into account the direct effect of governance on security management as well as the moderating effect of government policy between them. The study will also account for the interaction between regulatory strength, compliance, and government support and the effectiveness of governance mechanisms. The analysis is specific to the implications for physical security, cyber security and emergency preparedness in the public Universities in Nairobi County.

3.9 Ethical Consideration

Ethical issues were embedded in the research and informed all aspects of the research process. Ethical clearance and authorization by the National Commission for Science, Technology and Innovation (NACOSTI) were obtained before data collection to ensure that the study adhered to the national guidelines for research. Senior administrators, security officers, ICT officers, academic officers, and student affairs officers from the selected universities participated. They received detailed information on the study's academic objective and participated voluntarily; there were no consequences for withdrawal. Measures were put in place to guarantee confidentiality and anonymity by excluding personal identifiers from data analysis and reporting. The data were filed

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securely and not shared with anyone other than the researcher. Electronic and physical data were protected with strong security measures to ensure the data was not accessed, lost, or misused. As governance and security issues in higher education are sensitive, some measures were taken to minimize any possible harm, misrepresentation or disclosure of participants or institutions participating in the research. The study adhered to the core values of research such as research integrity, objectivity and transparency, which ensured that the results were credible, unbiased and ethically sound.

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CHAPTER FOUR
DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

1.2 Introduction

This chapter discusses the data analysis, data presentation and data interpretation from the respondents who were selected from the public universities in Nairobi County. It is structured around the four specific objectives of the study: (i) leadership in terms of structure and processes as a moderator between governance and security management, (ii) policy formulation and implementation as a moderator between governance and security management, (iii) stakeholder participation as a moderator between governance and security management and (iv) government policy as a moderator between governance and security management. It also reports the response rate, demographic characteristics, descriptive statistics, reliability analysis, diagnostic tests, correlation analysis, and multiple regression analysis of the respondents. The results are displayed in tables and figures and discussed in relation to the four objectives.

4.2 Response Rate

The study quantified the response rate on the questionnaires distributed to assess its adequacy for statistical analysis. A total of 90 questionnaires were issued to the respondents in the six public universities in Nairobi County. The questionnaires were completed, returned, and considered valid for analysis, and a 100% response rate was obtained, with all 90 questionnaires completed. Mugenda and Mugenda (2003) suggested that the minimum acceptable response rate for social science research is 70 %, and the response rate of this study was above that threshold; hence, the respondents' participation was acceptable, and the data collected were suitable for further statistical analysis. The response rate is shown in Table 4.

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Table 4 Response Rate

Response Category	Frequency (n)	Percentage (%)
Questionnaires Distributed	90	100.0
Questionnaires Returned	90	100.0
Questionnaires Not Returned	0	0.0
Response Rate	**90**	**100.0**

Source: Research Findings (2026)

4.3 Demographic Characteristics of Respondents

Table 5 shows the demographic and professional background data of the respondents in terms of sex, age, academic qualification, department and years of service in line with the questionnaire (Section A).

Table 5 Demographic Characteristics

Characteristic	Category	Respondent(n)	Percentage (%)
Gender	Male	50	55.6
	Female	40	44.4
Age	Below 30	12	13.3
	31–40	34	37.8
	41–50	28	31.1
	Above 50	16	17.8
Academic Qualification	Diploma	9	10.0
	Bachelor's Degree	46	51.1
	Master's Degree	30	33.3
	PhD	5	5.6
Department	Security	25	27.8
	ICT	19	21.1
	Administration	17	18.9
	Student Affairs	19	21.1
	Academic Staff	10	11.1
Years of Service	Below 5	25	27.8
	5–10	33	36.7
	11–15	23	25.6
	Above 15	9	10.0
University	University of Nairobi	15	16.7
	Kenyatta University	15	16.7
	JKUAT	15	16.7

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	Technical University of Kenya	15	16.7
	Multimedia University of Kenya	15	16.7
	Co-operative University of Kenya	15	16.7

Source: Research Findings (2026)

Descriptive statistical analyses of respondents' demographic characteristics were used to describe the composition of the study sample, aid interpretation of the results, and determine the sample's representativeness. Table 5 shows that 55.6% of the respondents were male while 44.4% were female, which is considered fairly balanced. The majority of respondents (68.9%) were aged between 31-50, indicating a high level of professional and institutional experience. In terms of educational attainment, over half of the respondents (51.1%) had acquired bachelor's degrees and a further 33.3% obtained master's degrees, which meant that respondents were well-positioned to yield informed comments on governance mechanisms and security management in their institution. The respondents were drawn from the various departments in the institution, which include security, ICT, administration, student affairs and academic departments, with the aim of covering the various functional areas of the institution that are involved in governance and security. Additionally, the number of respondents at each of the six universities were balanced (n = 15) to minimize institutional bias and increase institutional balance.

4.4 Descriptive Statistics for Study Variables

To summarize respondents' perceptions of the study constructs, descriptive statistics were computed. Each construct was given composite scores that were the average of the five Likert-scale items measuring each construct, with 1 being Strongly Disagree and 5 being Strongly Agree. These mean scores show the mean level of agreement, and the standard deviations show the level of variation in the responses of the respondents.

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Table 6 Descriptive Statistics

Construct	M	SD	Items
Leadership Structure	3.50	0.91	5
Policy Implementation	3.51	0.89	5
Accountability Mechanisms	3.56	0.80	5
Stakeholder Participation	3.54	0.77	5
Government Policy	3.62	0.87	5
Security Management	3.59	0.68	5

Note. Scale: 1 = Strongly Disagree, 5 = Strongly Agree. M = mean; SD = standard deviation

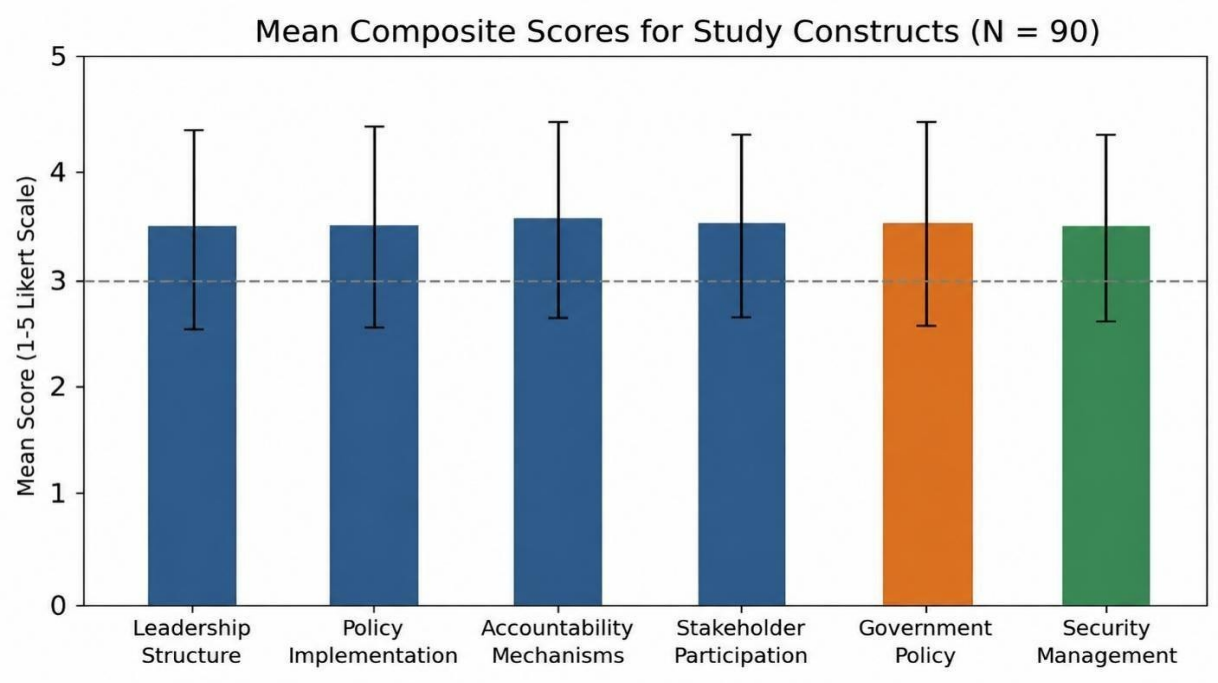
Source: Research Findings (2026)

The results show that all the mean scores of the study constructs were higher than the neutral point of 3.0 on the five-point Likert scale, meaning that the respondents perceived the mechanisms of governance, government policy and security management practices to be generally good. Government Policy recorded the highest mean score (M = 3.62, SD = 0.87), followed by Security Management (M = 3.59, SD = 0.68), Accountability Mechanisms (M = 3.56, SD = 0.80), Stakeholder Participation (M = 3.54, SD = 0.77), Policy Implementation (M = 3.51, SD = 0.89), and Leadership Structure (M = 3.50, SD = 0.91). The mean score for each construct was rather similar, but there were differences in the standard deviations (SDs), with the lowest SD (0.68) for Security Management and the highest SD (0.91) for Leadership Structure, suggesting a relatively larger range or variation in the respondents' perception of the leadership practices in the participating universities. The mean composite scores are shown graphically in Figure 2.

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Figure 2 Mean Composite Scores for the Study Constructs



Source: Research Findings (2026)

The mean composite scores for the study constructs are graphically presented in Figure 2. The mean scores for all six constructs are above the midpoint of the measurement scale, while the relatively small differences between the mean values suggest that the respondents generally had favourable and consistent perceptions of governance mechanisms, government policy, and security management. These data are descriptive and provide initial evidence of positive governance practices and the foundation for inferential analyses reported in the following sections.

4.5 Reliability Analysis

Reliability analysis was performed to determine the internal consistency of the measurement scales which were used to operationalize the study constructs. To assess the internal consistency of the items that measured each construct, Cronbach's alpha coefficient was

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calculated. A Cronbach's alpha of 0.70 or higher was adopted as a criterion for good reliability, based on Nunnally and Bernstein (1994).

Table 7 Reliability Statistics

Construct	Items	α	95% CI
Leadership Structure	5	.918	[.887, .942]
Policy Implementation	5	.902	[.866, .931]
Accountability Mechanisms	5	.895	[.856, .926]
Stakeholder Participation	5	.869	[.821, .907]
Government Policy	5	.910	[.877, .937]
Security Management	5	.857	[.804, .899]

Note. α = Cronbach's alpha; CI = confidence interval.

Source: Research Findings (2026)

The six constructs had Cronbach's alpha coefficient values ranging from .857 to .918 and above

.70, which is considered good to excellent internal consistency. Leadership Structure had the highest reliability coefficient (α = .918), while Government Policy (α = .910), Policy Implementation (α = .902), Accountability Mechanisms (α = .895), Stakeholder Participation (α =

.869) and Security Management (α = .857) showed second highest reliability coefficient. All six constructs were stable, as indicated by the 95% confidence intervals, all of which had lower limits above the minimum acceptable threshold. The findings revealed that the items of the questionnaire were able to measure the constructs they were designed to measure, and the questionnaire had good reliability for the correlation and regression analysis that followed.

4.6 Diagnostic Tests

To ensure the data meet the assumptions of ordinary least squares regression – normality, independence of errors, homoscedasticity, and absence of multicollinearity – diagnostic tests were applied before correlation and multiple regression analyses were performed. The validity, efficiency and interpretability of the regression estimates rely upon the satisfaction of these

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assumptions.

Table 8 *Summary of Diagnostic Test Results*

Test	**Purpose**	**Statistic**	**Decision**
Shapiro–Wilk	Normality of residuals	W = .986, p = .452	Normality met
Durbin–Watson	Autocorrelation of residuals	d = 1.96	No autocorrelation
Breusch–Pagan	Homoscedasticity	LM = 4.11, p = .661	Homoscedasticity met
VIF	Multicollinearity	VIF = 1.03–1.49	No multicollinearity

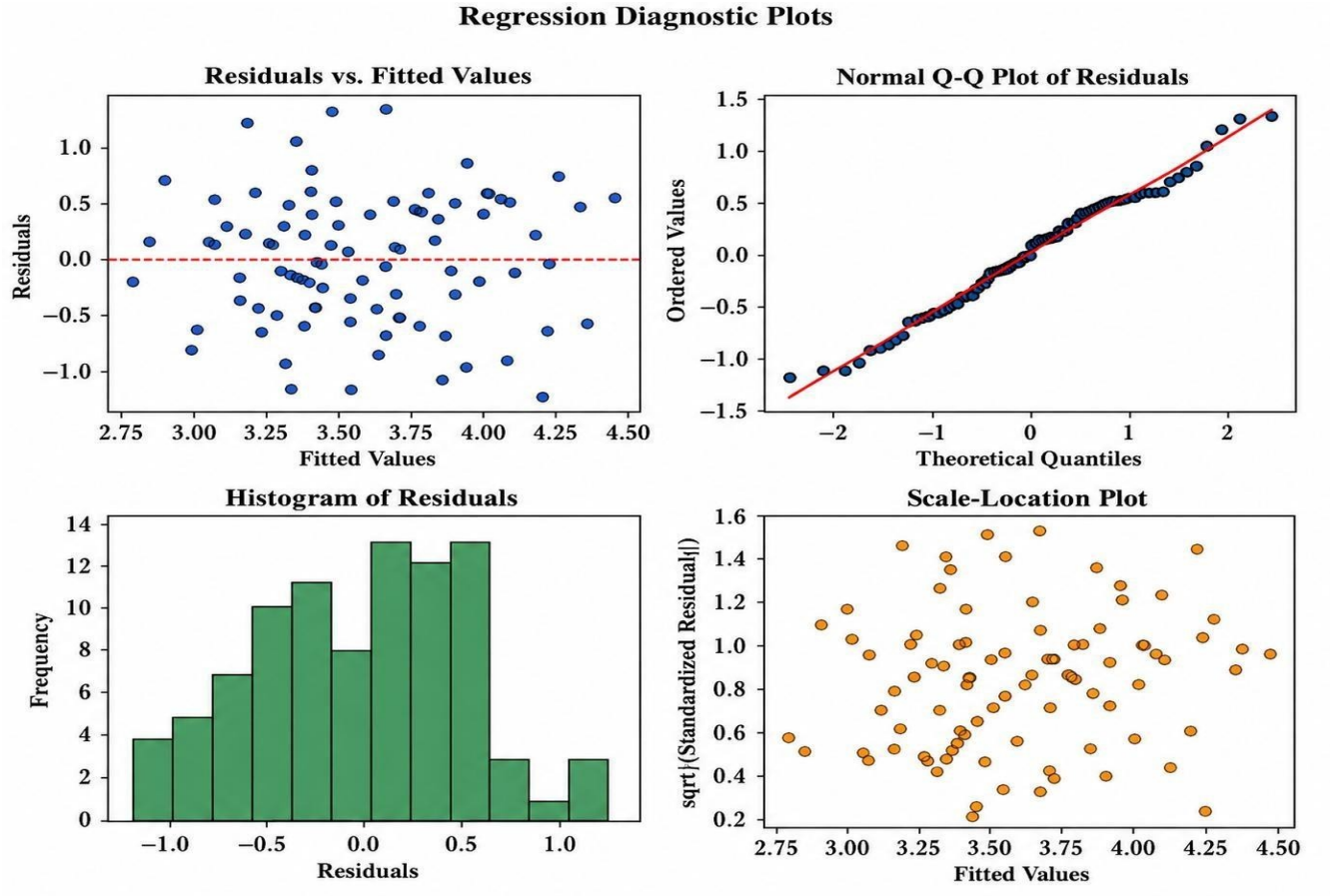
Source: Research Findings (2026)

The Shapiro–Wilk test confirmed the residuals' normality (W = .986, p = .452); because p > 0.05, the residuals were deemed normal. The Durbin-Watson statistic (d = 1.96) was close to the benchmark value of 2.0, suggesting no indication of first-order autocorrelation among the residuals. Residual variance was assumed to be constant across fitted values, since the Breusch –Pagan test resulted in a Lagrange Multiplier statistic of 4.11 (p = .661), which was not significant. The range of the VIFs was 1.03 to 1.49, which were significantly below the standard threshold of 5.0; therefore, multicollinearity was not a concern, and the predictor variables represented different parts of governance mechanisms. The results of the diagnosis showed that the multiple linear regression model assumptions were reasonably well met and the data were suitable for use in analyzing the moderating effect of government policy by Pearson correlation analysis and multiple regression analysis. In SPSS, the corresponding regression diagnostic plots of residuals-versus-fitted, normal Q–Q, histogram of residuals and scale–location were produced and are shown in figure 3.

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Figure 3 Regression Diagnostic Plots



Source: Research Findings (2026)

The assumptions of linearity and homoscedasticity were supported by the residuals-versus-fitted plot, which displayed no systematic pattern of randomness from the zero-reference line. The normal

Q-Q plot indicated that the standardized residuals were close to the reference line, with a slight deviation at the extreme tails, which were consistent with the assumption of approximate normality. The histogram of the residuals was also close to a normal distribution, with a mean

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near zero and no clear outliers or skewness. The scale–location plot indicated that the residuals were approximately constant over the fitted values, thus justifying the assumption of homoscedasticity. In general, the results from the graphical diagnostics were consistent with the statistical diagnostic results in Table 8, which showed that the conditions of multiple regression analysis were met well.

The assumptions of linearity and homoscedasticity were reasonably met, as shown by the Residuals versus Fitted plot, which displays no apparent systematic trend in the residuals around the zero-reference line. The Normal Q–Q plot indicates that the standardized residuals are all close to the reference line and have a few values at the extreme tails that deviate slightly from the reference line, implying that the residuals are approximately normally distributed. The histogram of residuals also confirms that the normality assumption is reasonable, as the distribution is approximately normal, with a small residual mean near zero and no major skewness or outliers. Lastly, the Scale–Location plot shows that the standardized residuals remain fairly constant over a range of fitted values, further confirming the assumption of homoscedasticity. The overall impression from the graphics of the diagnostic tests is consistent with the statistical diagnostic tests shown in Table 8, which show that the assumptions of multiple regression analysis were satisfied.

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4.7 Correlation Analysis

To explore the direction and magnitude of the relationships among the study variables, Pearson product-moment correlation analysis was performed before the multiple regression models were estimated. This analysis determined the degree of linear relationship between leadership structure, policy implementation, accountability mechanisms, stakeholders' involvement, government policy and security management. The correlation coefficients are given in Table 9.

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Table 9 Pearson Correlation Matrix among Study Variables

Variable	LS	PI	AM	SP	GP	SM
1. Leadership Structure	—					
2. Policy Implementation	.416***	—				
3. Accountability Mechanisms	.236*	.275**	—			
4. Stakeholder Participation	.366***	.289**	.132	—		
5. Government Policy	.252*	.140	.119	−.039	—	
6. Security Management	.211*	.233*	.321**	.092	.460***	—

*Note. LS = Leadership Structure; PI = Policy Implementation; AM = Accountability Mechanisms; SP = Stakeholder Participation; GP = Government Policy; SM = Security Management. *p < .05, **p < .01, ***p < .001.*

Source: Research Findings (2026)

Leadership structure was positively and significantly correlated with policy implementation (r =

.416, p < .001), stakeholder participation (r = .366, p < .001), government policy (r = .252, p < .05) and security management (r = .211, p < .05), indicating that the higher the level of leadership structure, the better the governance practices and moderately better the security management. Leadership structure, accountability mechanisms (r = .275, p < .01), stakeholder participation (r =

.289, p < .01) and security management (r = .233, p < .05) were in turn highly and positively correlated with policy implementation, but not highly positive and significant in relation to government policy (r = .140, p > .05).

A positive statistically significant correlation was found between security management and accountability mechanisms (r = .321, p < .01), suggesting that institutions with better accountability mechanisms tended to report better security management practices. Leadership structure and policy implementation were also found to be positively correlated with accountability mechanisms, with the relationship between stakeholder participation and accountability mechanisms (r = .132, p > .05) and government policy and accountability mechanisms (r = .119, p > .05) not being significant. The relationship between stakeholder participation and security management was also weak, positive, and not significant (r = .092, p > .05); stakeholder participation was also not related to government policy (r = −.039, p > .05).

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Strong government policy frameworks were the most strongly correlated variable in the matrix with security management ($r = .460$, $p < .001$), meaning that stronger government policy frameworks were linked to stronger institutional security management practices.

Correlation coefficients ranged from −.039 to .460, suggesting weak-to-moderate relationships among the study variables overall. The intercorrelations among the independent variables were also close to the standard rule of .80 for multicollinearity, as indicated by the VIF values in Table 10. These bivariate results provide an initial indication of positive associations between governance mechanisms, government policy, and security management, but they do not allow causal inferences and cannot account for the unique contribution of each predictor, so multiple regression analysis was used to address the four objectives of this study directly.

Generally, these bivariate patterns corroborate the empirical literature presented in Chapter Two. The positive correlation between the leadership structure and security management ($r = .211$, $p <$ .05) aligns with Al Othmani (2025), who established a positive relationship between administrative leadership and security preparedness. The correlation between accountability mechanisms and security management ($r = .321$, $p < .01$) aligns with the focus on accountability and oversight in previous studies on governance (Korir, 2024). The most significant bivariate correlation in the matrix is between government policy and security management ($r = .460$, $p < .001$), which aligns with Abdulhaleem (2025), who reported a positive relationship between centralized government policy and strategic coherence in security management. The lack of a significant correlation between stakeholder participation and security management ($r = .092$, $p > .05$) contrasts with Dakane and Mutuku (2023), who reported that stakeholder involvement significantly improved coordination and security preparedness, which may be attributed to the project/school level settings in which earlier studies were conducted compared with the decentralized and autonomous stakeholder structure of public universities in Kenya.

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4.8 Multiple Regression Analysis

To achieve the study objectives, multiple linear regression was used to analyze the contribution of leadership structure, policy implementation, and stakeholder participation to security management in public universities, and to examine the moderating role of government policy on the relationship between the two governance mechanisms and security management. The regression models also incorporated accountability mechanisms, the fourth governance dimension in the questionnaire, to estimate the unique contribution of each predictor while controlling for the effects of the other predictors. The analysis was carried out in two stages: the first stage estimated direct effects of the two governance mechanisms and government policy on security management; and the second stage introduced an interaction term between the composite governance mechanisms score and government policy to test objective four.

4.8.1 Model 1: Direct Effects of Governance Mechanisms and Government Policy

Model 1 examined the direct impact of leadership structure, policy implementation, accountability mechanisms, and stakeholder involvement on security management, in relation to Government policy. To assess the independent and combined effect of each predictor on security management, the model was estimated using multiple linear regression to account for the effect of other predictors. The data are displayed in Table 10.

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Table 10 Multiple Regression of Governance Mechanisms and Government Policy on Security Management

Predictor	B	SE	t	p	95% CI
(Constant)	3.589	0.062	57.83	< .001	[3.47, 3.71]
Leadership Structure	−0.008	0.074	−0.11	.910	[−0.16, 0.14]
Policy Implementation	0.067	0.071	0.94	.350	[−0.07, 0.21]
Accountability Mechanisms	0.163	0.066	2.49	.015	[0.03, 0.29]
Stakeholder Participation	0.036	0.069	0.53	.598	[−0.10, 0.17]
Government Policy	0.288	0.065	4.41	< .001	[0.16, 0.42]

Source: Research Findings (2026)

Model 1 was statistically significant, $F(5, 84) = 7.08$, $p < .001$, and explained about 29.6% of the variance in security management ($R^2 = .296$, Adjusted $R^2 = .255$). Among the five predictors, only accountability mechanisms ($B = 0.163$, $t = 2.49$, $p = .015$) and government policy ($B = 0.288$, $t = 4.41$, $p < .001$) were statistically significant. Stakeholder participation ($B = 0.036$, $p = .598$), policy implementation ($B = 0.067$, $p = .350$), and leadership structure ($B = −0.008$, $p = .910$) did not have statistically significant independent effects when controlling for the other governance dimensions and government policy. The unexpected finding of the non-significant unique effect of leadership structure is contrary to the previous findings on leadership and security management in institutional settings in Kenya (Al Othmani, 2025). However, the difference is more likely to reflect variation in model specification than any real lack of the relevance of leadership: previous research generally has focused on leadership in more centralized and hierarchical organisations, while the current model also included policy implementation, accountability mechanisms, stakeholder involvement, and government policy, which were all moderately correlated with leadership structure (Table 10). This implies that, in this sample, leadership's role in security management can be used together with other governance mechanisms, but not necessarily in isolation. The non-significant relationship between policy implementation and security management is contrary to Nwile (2022), whose

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study found security management and policy were significantly related in public secondary schools, but consistent with the study conducted by Tshimanika, Chigona, and Sadeck (2022), who found that the influence of policy after controlling for other governance factors was inconsistent.

The lack of a significant independent stakeholder effect is similar to Brázová (2021), who found that the effect of stakeholder participation on security governance depends on institutional context and coordination quality, but differs from Dakane and Mutuku (2023), who found a positive stakeholder effect on project and security outcomes. In contrast, the mechanisms of accountability emerged as a powerful and statistically significant predictor of security management, which aligns with the focus on accountability and independent oversight in previous governance studies (Korir, 2024). In addition, government policy was also strong and significant as a direct influence, which aligns with the findings of Abdulhaleem (2025), who found that government policy was a strong influence that enhanced security management strategy.

4.8.2 Model 2: Testing the Moderating Effect of Government Policy

In order to investigate government policy's influence on the relationship between governance mechanisms and security management, a hierarchical multiple regression analysis was conducted. The four standardized governance constructs (leadership structure, policy implementation, accountability mechanisms, and stakeholder participation) were used to compute a governance mechanisms score, which was then cross-multiplied with the standardized government policy score to create an interaction term that was added to the second step of the model

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Table 11 Hierarchical Regression Testing the Moderating Role of Government Policy

Predictor	B	SE	t	p	95% CI
(Constant)	3.579	0.063	56.73	< .001	[3.45, 3.71]
Leadership Structure	0.006	0.076	0.08	.935	[−0.15, 0.16]
Policy Implementation	0.065	0.071	0.91	.365	[−0.08, 0.21]
Accountability Mechanisms	0.159	0.066	2.41	.018	[0.03, 0.29]
Stakeholder Participation	0.043	0.069	0.63	.533	[−0.09, 0.18]
Government Policy	0.287	0.066	4.39	< .001	[0.16, 0.42]
Governance Mechanisms × Government Policy	0.053	0.061	0.88	.383	[−0.07, 0.17]

Note. R^2 = .303, Adjusted R^2 = .252, F (6, 83) = 6.01, p < .001. ΔR^2 = .007, F change (1, 83) = 0.77, p =
.383, relative to Model 1.

Source: Research Findings (2026)

The intercept was positive and significant (B = 3.579, SE = 0.063, t = 56.73, p < .001), indicating the mean level of security management when all predictor variables are set at their mean. Consistent with Model 1, accountability mechanisms remained the only governance dimension with a statistically significant effect (B = 0.159, SE = 0.066, t = 2.41, p = .018, 95% CI [0.03, 0.29]), while leadership structure (B = 0.006, p = .935), policy implementation (B = 0.065, p =

.365), and stakeholder participation (B = 0.043, p = .533) remained non-significant. Government policy remained the strongest direct predictor of security management (B = 0.287, SE = 0.066, t = 4.39, p < .001, 95% CI [0.16, 0.42]).

However, the interaction between the composite score of governance mechanisms and government policy was positive but not statistically significant (B = 0.053, SE = 0.061, t = .88, p = .383, 95% CI [−0.07, 0.17]). The study did not reject H05 at the 95% confidence level; thus, the 95% confidence interval for the interaction term was not outside of zero, and the p-value was greater than 0.05; this shows that at the 95% confidence level, government policy did not significantly strengthen or weaken the relationship between governance mechanisms and security management. However, the introduction of the interaction term was not significant in improving model fit when compared to Model 1 (ΔR^2 = .007, F change (1, 83) = 0.77, p = .383). The results therefore suggested that government policy did not moderate the

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relationship between the governance mechanisms and security management, but rather it was a predictor of security management in its own right. The finding differs from Al Othmani (2025), who found government policy as a moderating factor in Kenyan public universities, but is consistent with the trend that was observed across the literature, which showed that government policy is a direct structural influence and not a conditioning factor (Abdulhaleem, 2025).

4.9 Summary of Hypothesis Testing

The results of multiple regression and hierarchical regression were combined to determine the support of the five null hypotheses in the study. The hypotheses were tested at the 95% level (or $\alpha = 0.05$). For all decisions, the null hypothesis was rejected when $p < .05$, and not rejected when $p \geq$

.05. The statistical results and hypothesis decisions are summarized in Table 13.

Table 12 Summary of Findings against Study Objectives

Study Objective	Statistical Result	Hypothesis Decision
Leadership structure → security management	B = −0.008, p = .910	Fail to Reject H_{01}
Policy implementation → security management	B = 0.067, p = .350	Fail to Reject H_{02}
Accountability mechanisms → security management	B = 0.163, p = .015	Reject H_{03}
Stakeholder participation → security management	B = 0.036, p = .598	Fail to Reject H_{04}
Government policy moderates the governance mechanisms–security management relationship	$\Delta R^2 = .007$, p = .383	Fail to Reject H_{05}

Source: Research Findings (2026)

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4.9.1 Influence of Leadership structures on security Management in Public Universities in Nairobi County.

The hypothesis to be tested was stated as;

H_{01}: Leadership structures have no statistically significant influence on security management in public universities in Nairobi County.

The study found that leadership structure did not statistically significantly predict security management when other governance dimensions and government policy were held constant ($B = -0.008$, $t = -0.11$, $p = .910$). The p-value of .910 was greater than the 0.05 significance level, so H_{01} was not rejected.

This means that, at the 95% confidence level, there was no statistically significant independent relationship between leadership structure and security management among the sampled universities. This finding differs from Al Othmani (2025), which found that leadership strongly affected security preparedness, suggesting that leadership's influence in this sample may be related to, rather than independent of, other governance mechanisms.

4.9.2 Effect of Policy formulation and implementation on security Management in Public Universities in Nairobi County.

The hypothesis was stated as;

H_{02}: Policy formulation and implementation have no statistically significant effect on security management in public universities in Nairobi County.

The study findings showed that policy implementation was also not a significant predictor of security management ($B = 0.067$, $t = 0.94$, $p = .350$). The study results did not support rejection of H02, as $p = .350$ was not less than .05, suggesting that there is no statistically significant difference between pre- and post-policy implementation in terms of their effect on the security management at the 95% confidence level. The results are congruent with the results presented by Tshimanika, Chigona and Sadeck

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(2022) who established that inconsistent implementation reduced the actual impact of formally adopted policy.

4.9.3 Influence of Stakeholder participation on security Management in Public Universities in Nairobi County.

The hypothesis was stated as;

H_{03}: Stakeholder participation has no statistically significant influence on security management in public universities in Nairobi County.

Stakeholder participation was found not to be a significant predictor of security management, B = 0.036, t = 0.53, p = .598. The value of p was found to be greater than 0.05, so the study did not reject H03, suggesting that there was no statistically significant independent effect of stakeholder participation on security management at the 95% confidence level. The findings correspond to Brázová (2021), who found that the impacts of stakeholder engagement on security governance can be sensitive to institutional context and coordination.

4.9.4 Influence of accountability and oversight mechanisms on security Management in Public Universities in Nairobi County.

The hypothesis was stated as;

H_{04}: Accountability and oversight mechanisms have no statistically significant influence on security management in public universities in Nairobi County.

Unlike the first three hypotheses, accountability mechanisms were found to be a statistically significant predictor of security management (B = 0.163, t = 2.49, p = .015). Given that p = .015 is less than 0.05, the study concluded to reject H04 and accept the alternative hypothesis that accountability and oversight mechanisms have a statistically significant impact on security management at the 95% confidence level. This result aligns with Korir (2024), who highlighted that accountability and independent oversight are key elements of good governance and

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security.

4.9.5 The moderating effect of Government policy on security Management in Public Universities in Nairobi County.

The hypothesis was stated as;

H05: Government policy has no statistically significant moderating effect on the relationship between governance mechanisms and security management in public universities in Nairobi County.

The study found that the interaction between the composite governance mechanisms scores and government policy was not statistically significant (B = 0.053, t = 0.88, p = .383) and did not significantly improve model fit (ΔR^2 = .007, p = .383). Given p = .383 > 0.05, the study could not reject H05, suggesting that government policy had no significant moderating effect on the relationship between governance mechanisms and security management at the 95% confidence level. Both models showed that government policy had a strong, statistically significant direct effect on security management (B = 0.287–0.288, p < .001), consistent with Abdulhaleem (2025).

The findings point to accountability mechanisms and the direct impact of government policy as the only empirically significant predictors of security management, whereas leadership structure, policy implementation, stakeholder involvement, and the moderating influence of government policy were not backed by the data. This is generally similar to the strand that focuses on accountability and policy structure as the most effective governance drivers of security outcomes (Korir, 2024; Abdulhaleem, 2025).

4.10 Chapter Summary

The results presented in this chapter analyzed and interpreted the data obtained from the respondents in the selected public universities in Nairobi County under the study objectives, which included the response rate, demographic characteristics of the respondents, descriptive statistics, reliability analysis, diagnostic tests, correlation analysis, and also multiple and

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hierarchical regression analysis. The internal consistency of all study constructs was satisfactory, as indicated by the results of the reliability analysis, while the diagnostic tests confirmed that the use of multiple linear regression met the assumptions well. Generally, positive correlations were found between governance mechanisms, government policy and security management, ranging in the degrees of correlation, with some only being statistically significant. The regression analysis revealed that leadership structure, policy implementation and stakeholder involvement were not statistically significant independent contributors to security management when the other governance dimensions and government policy were controlled for, whereas the measures of accountability and government policy were. The hierarchical regression analysis also revealed that the governance policy did not significantly moderate the relation between governance mechanisms and security management, suggesting that governance policy had a direct effect rather than strengthened or weakened the effect of governance mechanisms. In conclusion, the results confirm that neither the data supported Objectives One, Two, and Three, nor was a moderating effect as proposed in Objective Four confirmed, and the direct influence of government policy emerged as the factor most closely related to better security management in the sampled public universities.

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CHAPTER FIVE
SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The findings of the study are presented in this chapter in relation to the four objectives of the study, in addition to Agency Theory, Institutional Theory, Securitization Theory and the empirical literature presented in Chapter Two. The chapter also includes conclusions and recommendations for each analyzed governance variable, recommendations for additional research, a chapter summary, and the study's limitations.

5.2 Summary of Findings

This section draws the main findings of the study in relation to each of the four study objectives, as well as to the moderating role of government policy and incorporates the results of the study with the agency, institutional, and securitization Theories that formed the basis of the study and the empirical literature reviewed in Chapter Two. The study aimed at examining the role played by governance mechanisms on security management practices in public universities in Nairobi County and also to establish the moderating effect of government policy on this relationship. The degree of support for or divergence from previous studies' findings and the implications of the results for governance and security management in public universities are subsequently discussed.

The bivariate correlation for leadership structure and security management was weak positive correlation ($r = .211$, $p < .05$); however, the correlation was not found to be statistically significant when controlling for policy implementation, accountability mechanisms, stakeholder participation, and government policy ($B = -0.008$, $p = .910$). Leadership is seen as an important institutional mechanism for organizing and coordinating governance processes through Agency

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Theory but the extent to which leadership can improve security management is constrained by the requirement for robust accountability mechanisms, effective policy implementation and institutional oversight. It appears that the indirect effect of leadership on security management is also likely, with moderate positive correlations with leadership structure and policy implementation (r = .416) and stakeholder involvement (r = .366). This finding is contrary to that of Shaba and Usman (2024), Adole (2024) who reported that the effective implementation of leadership structures significantly contributes to the preparedness of institutions and emergency responses, and may be attributed to the context of the studies, governance of the institutions, and the perception of leadership within the education system. It is, however, consistent with Al Othmani (2025) who stated that leadership in school is not just a single factor that affects the performance of an organization, but rather it is a component of an integrated governance system. The evidence reviewed suggests that the use of improved leadership structures may lead to an improvement in security management only when coupled with other governance elements that facilitate the institutional process, including accountability mechanisms that provide transparency, monitoring, and effective implementation of institutional decisions.

The bivariate results showed a significant positive correlation between policy implementation and security management ($r = .233$, $p < .05$); however, the bivariate results did not support a statistically significant independent effect of policy implementation in the multiple regression model ($B = 0.067$, $p = .350$). This is consistent with institutional theory which holds that the influence of formalized rules and policies on the behaviour of organisations depends on the strength of institutional arrangements and enforcement systems; if they aren't there, formal rules can't produce changes in practice. The results indicate that while security policies have been developed, they do not necessarily lead to improved security outcomes, and that they

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should be supported by strong accountability mechanisms and broader governance systems. This corroborates the study by Ahmad and Muslim (2024) that found monitoring and compliance mechanisms enhance the effectiveness of institutional implementation. Further, the results suggest that universities must not only develop security policies, they also must develop institutional mechanisms that enforce the policy, review the use of the policy, and mediate between the policy and the implementation.

After accounting for the other dimensions of governance, the only one that positively and significantly predicted security management was accountability mechanisms (B = 0.163, p = .015), indicating that more effective institutions are more likely to have more effective security management practices. This finding supports the Agency Theory which states that the greater the information asymmetry between organisational leadership and stakeholders, the greater the transparency, monitoring and oversight provided by the accountability mechanisms. Accountability mechanisms strengthen the effectiveness of governance and the capacity of the institution to manage security risks through clearly defined reporting lines, institutional internal control, institutional audit and monitoring of performance, ensuring accountability of the institutional leadership for all security-related decisions and actions. It corroborates the findings of Quttainah et al. (2025) and Alapishvili (2024) that transparent governance contributes to increased institutional effectiveness through robust governance monitoring and accountability, and that of Korir and Cornelius (2024) that accountability mechanisms are effective in improving institutional performance in public-sector organisations in Kenya. This corroboration establishes accountability mechanisms as the governance dimension most well established in the literature examined in this research and suggests that the highest governance-related improvement in institutional security performance would be the strengthening of the reporting processes and internal audits, compliance monitoring, and managerial control.

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The bivariate correlation between stakeholder involvement and security management was not statistically significant ($r = .092$, $p > .05$) and the correlation was not significant ($B = 0.036$, $p = .598$). Securitization Theory emphasizes that stakeholder engagement is vital to security governance as it allows for the framing of security threats, fosters shared understanding of threat among stakeholders, and allows for a collective action to address security issues and challenges. The current findings, however, indicate that it is the degree of stakeholder inputs into the decision making and implementation process that impacts security management, and not just participation. This finding contrasts with Daud, Thinguri, and Mugwe (2022) and Dakane and Mutuku (2023) which both concluded that stakeholder engagement led to increased organisations readiness, collaboration and disaster response which could be attributed to variations in the organisational culture, governance and extent to which stakeholder recommendations influenced policy development and operational decision making. The results show that participation of stakeholders in security planning, policy making and decision making is more than the existence of formal structures; it is their quality and integration. The findings exhibit that stakeholder participation is not only defined by the presence of formal participation structures, but also by their quality and integration.

The hierarchical regression analysis showed significant direct positive effect of government policy on security management in both models (Model 1: $B = 0.287$-0.288, $p < .001$; Model 2: $B = 0.287$-0.288, $p < .001$) but it did not affect the relationship between governance mechanisms and security management significantly (in Model 1: $\Delta R^2 = .007$, $p = .383$; in Model 2: $\Delta R^2 = .007$, $p = .383$). These indicate that government policy actually affects institutions' security outcomes, not as a precondition of the robustness of the institutions' governance mechanisms. The finding is consistent with the approach of Institutional Theory, which examines the influence of extern

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regulatory institutions on organisational behaviour, government policies establish institutional expectations, compliance requirements and operational standards that shape organisational behaviour, irrespective of the internal governance system. The fact that there appears to be little moderating effect on the relationship also indicates that improvement of governance mechanisms will likely improve security management, regardless of what the government policy setting is, and that improvement of governance mechanisms will likely improve security management regardless of how "good" the internal governance mechanisms are. Hence, it is recommended that the universities have to ensure good governance within the institution while also meeting the government's regulatory requirements rather than using one to counter the lack of the other, as this would give the best grounds to ensure the security of the university both from the empirical agenda as well as the regulatory stance.

5.3 Conclusions

The study sought to investigate the relationship between governance mechanisms and security management in public universities in Nairobi County and the moderating effect of government policy on the relationship. The following conclusions are drawn in regard to each governance variable examined.

Nevertheless, it was observed that the accountability dimension is the most critical in governance that affects the security management in the sample universities. If reporting is effective, there is transparency in oversight, internal audits are regular and responsibilities are clear, security management is improved in a statistically controlled way for all other governance factors examined. This is not true of any of the other governance mechanisms examined in this research. The analysis thus suggests a more conservative, though more substantiated, conclusion, than is

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often drawn in this literature: accountability is what makes universities more secure and strengthening accountability is the most direct and also most defensible governance action public universities can take to enhance their security performance.

Government policy demonstrates a strong, positive and direct impact on security management but does not moderate the impact of governance mechanisms on security outcomes. These two results indicate that government policy is not an amplifier of internal governance: supportive policy leads to security, and so does good internal governance. Thus, the study finds that there is a need to work on improving both the government policy as well as the institutional governance, both in isolation. Leadership is positively associated with security management at the bivariate level, but fails to hold constant when the other governance mechanisms and government policy are added to the model, suggesting that the effect of leadership is not statistically significant when other governance mechanisms and government policy are controlled. This doesn't invalidate the role or the importance of leadership – it just shifts it: Leadership seems to have a major effect on the functioning of accountability, policy implementation and stakeholder engagement in security management, but not as a determinant of security outcomes. Enhancing leadership structures alone will not provide tangible security benefits; leadership will only have an impact when coupled with accountability systems, policy enforcement and governance arrangements it can coordinate.

Before other governance variables are introduced into the model, policy is positively correlated with security outcomes; however, it is not correlated when other dimensions of governance are added, indicating that the presence and implementation of institutional policy is insufficient to explain security outcomes. It is a more defensible argument that the implementation of policy is part of a broader governance system and that these effects are moderated by the monitoring, enforcement and accountability systems in which policy is embedded. The results provide no

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support for the participation of stakeholders at the bivariate or multivariate levels. The research does not say that stakeholder engagement with universities is irrelevant, but that the current forms of stakeholder engagement do not necessarily have an impact on the governance of universities. It is not, therefore, interpreted here as a sign of failure to be statistically significant, but as an indicator of the quality of the current participation structures and not as a sign against the value of stakeholder participation.

5.4 Recommendations

Each recommendation is presented as it was ranked in order of the amount of empirical support found for each in this study. The study recommends that leadership structure, policy formulation and implementation, and stakeholder participation were found to have to statistically significant effect on security management. University management should have regular reviews of management structure in order to strengthen and align it with modern security challenges. Concerning policy formulation and implementation, university management should regularly evaluate existing security policies to identify possible gaps between design and implementation. On stakeholder participation universities should continue to foster stakeholder involvement in security matters while assessing the effectiveness of current participation mechanisms.

The dimension of accountability as a governance factor showed a statistically significant and independent impact on security management, thus the most immediate and sustained investment of the university should be aimed at it. Security oversight responsibility should be clearly defined and security patiently monitored and managed by the institution's management via frequent security audit and better the internal control mechanism on security. It would be difficult to argue that this governance dimension is not a high priority given that the data shows it's the one dimension of governance that has a clear relationship to security outcomes.

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Moreover, the government policy had a direct effect on security management, which was significant and substantial, irrespective of the internal governance arrangements. Security policy and compliance framework for the University should therefore be strengthened by the Commission for University Education, the Ministry of Education and other relevant regulatory bodies by providing more precise policy guidance, strengthening regulatory oversight, and ongoing support for universities in enhancing their security capability. There will be no institution without a non-governance effect or a non-governance effect without an institution, and the institutional framework must also be responsive enough to adapt to the changing threat situation.

5.5 Suggestions for Further Studies

The study should be replicated in other counties of Kenya, both public and private universities to assess the findings in different institutional and governance context. Furthermore, it is recommended that the nature of the relationship between governance mechanisms, government policy and security management be further explored over time through longitudinal research designs as a way to improve causal inferences that can be made from this current cross-sectional design. Future research might examine whether the relationship between leadership structure, policy implementation, stakeholder involvement, and security management is mediated by accountability and thus demonstrate a broader relationship between these governance mechanisms. Furthermore, future research could employ qualitative or mixed methods to consider institutional experiences, perceptions, and context that could explain why there was no significant independent effect of stakeholder participation in this study. Similarly, further research is needed to comprehend factors that impact security management beyond those included in this analysis, incorporating institutional culture, organisational resilience, resources and technological capacity, and leadership

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competencies.

5.6 Limitations of the Study

Several limitations of method and context should be considered when interpreting the results of the study. For instance, the cross-sectional research design does not enable causal relationships of the variables studied to be inferred; the results were important but were only of a statistical nature and not causal nature. Additionally, the study was carried out in selected public universities in Nairobi County, which could affect the generalizability of the findings as findings may not be applicable to private universities or public institutions in other counties or countries where they may have different governance structures, institutional settings and policy environments. In addition, data was collected by self-administered questionnaires with the potential for response bias, specifically social desirability and common method bias. Confidentiality and anonymity were emphasized but there may have been some respondent bias. Furthermore, the study only explored governance mechanisms and government policy in relation to the determinant of security management, as other factors, which may have a significant influence on the outcomes of security management, were not explored such as institutional culture, financial resources, technological infrastructure, organisational resilience and leadership competencies. However, the study utilized valid instruments, appropriate statistical data analysis and the diagnostic assessment, which have strengthened the credibility, validity and reliability of the research. This study therefore provides some empirical evidence which have meaning in the context of the relationship between governance mechanisms and security management in public universities in Nairobi County.

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Appendix I: Introduction Letter

Dear Respondent,

I am conducting a study entitled "Influence of Governance Mechanisms on Security Management in Public Universities in Nairobi County: The Moderating Role of Government Policy. "You have been selected to participate because of your role in university operations and governance. The purpose of this study is to examine how governance mechanisms influence security management within public universities and to determine the moderating role of government policy.

Participation in this study is voluntary. The information you provide will be treated with the strictest confidentiality and will be used solely for academic purposes. Your responses will remain anonymous, and no information that could identify you personally will be disclosed.

There are no right or wrong answers. Kindly answer all questions honestly by ticking (✓) the response that best reflects your opinion.

Thank you for your valuable participation.

Yours sincerely,

Erick Okeyo

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Appendix II: Questionnaire

Introduction

This questionnaire is intended to collect data on governance mechanisms and security management in public universities in Nairobi County. The study examines the relationship between leadership, policy implementation, accountability, and stakeholder participation, and physical security, cybersecurity, and emergency preparedness. All responses will be kept entirely confidential and will be used only for academic purposes.

SECTION A: Background Information

(Please tick or fill where appropriate)

1.Gender

☐ Male

☐ Female

☐ Prefer not to say

2. Age

☐ Below 30 years

☐ 30–39 years

☐ 40–49 years

☐ 50 years and above

3. Highest Academic Qualification

☐ Diploma

☐ Bachelor's Degree

☐ Master's Degree

☐ Doctorate (PhD)

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☐ Other (Specify) _____

4. Position/Designation_____

5. Functional Department/Unit

☐ Security

☐ ICT

☐ Administration

☐ Student Affairs

☐ Academic Department

☐ Finance

☐ Human Resource

☐ Procurement

☐ Other (Specify) _____

6. Length of Service

☐ Less than 5 years

☐ 5–10 years

☐ 11–15 years

☐ More than 15 years

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SECTION B: GOVERNANCE MECHANISMS

Instructions

Please indicate the extent to which you agree or disagree with each of the following statements by ticking (✓) the response that best reflects your opinion, using the following scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree.

B1. Leadership Structure

For the purpose of this study, leadership structure refers to the organizational arrangements through which authority, decision-making, and strategic direction are exercised to support security management.

Statement	1	2	3	4	5
University leadership provides clear strategic direction on security management.					
Security roles and responsibilities are clearly defined within the university.					
Top management actively supports security-related initiatives and decisions.					
Communication between university leadership and security units is effective.					
University leadership responds promptly and effectively to emerging security threats.					

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B2. Policy Implementation

For the purpose of this study, policy formulation and implementation refers to the process by which university security policies and procedures are developed, documented, and effectively applied and monitored.

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Statement	1	2	3	4	5
The university has clearly documented security policies and procedures.					
Security policies are consistently implemented across all university departments.					
Employees are adequately informed about university security policies.					
Regular training is conducted to enhance compliance with university security policies.					
Security policies are periodically reviewed and updated to address emerging security risks.					

B3. Accountability Mechanisms

For the purpose of this study, accountability mechanisms refer to institutional systems that promote responsibility, transparency, reporting, monitoring, and oversight in security management.

Statement	1	2	3	4	5
Security personnel are held accountable for the performance of their assigned responsibilities.					
The university has clear reporting structures for security-related matters.					
Regular security audits are conducted to assess compliance with security procedures					
Security incidents are formally documented and investigated.					
Appropriate corrective actions are taken following reported security incidents.					

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B4. Stakeholder Participation

For the purpose of this study, stakeholder participation refers to the involvement of students, staff, administrators, and security personnel in security planning, implementation, and evaluation.

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Statement	1	2	3	4	5
Students are actively involved in university security awareness and decision-making initiatives					
Staff regularly participate in security awareness and preparedness programmes.					
Security committees include representatives from different university departments.					
Relevant stakeholders are consulted during the development and review of university security policies.					
Stakeholder feedback is incorporated into improvements in university security management.					

SECTION C: MODERATING VARIABLE

Government Policy

For the purpose of this study, government policy refers to national laws, regulations, directives, and policy guidelines that influence security management in public universities.

Statement	1	2	3	4	5
Government regulations and governing university security are clearly defined.					
The university complies with national security regulations and guidelines.					
Government provides adequate policy and regulatory support for university security management.					
Government policies influence security-related decision-making within the university.					
Government compliance requirements influence the implementation of institutional security systems.					

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SECTION D: SECURITY MANAGEMENT

For the purpose of this study, security management refers to the effectiveness of institutional measures used to prevent, detect, respond to, and recover from security threats affecting people, infrastructure, and information systems.

Statement	1	2	3	4	5
Access control systems effectively prevent unauthorized entry into university facilities.					
Security incidents are promptly detected, reported, and investigated.					
The university has adequate cybersecurity measures to protect information systems and data.					
Emergency preparedness and response procedures are effectively coordinated.					
The university continuously reviews and improves its security management practices to address emerging security threats.					

Thank You

Thank you for taking the time to complete this questionnaire. Your participation and valuable responses are greatly appreciated and will contribute significantly to this study.

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Appendix III: A list of population

No.	University	Target Respondents (Unit of Observation)
1	University of Nairobi	Security officers, ICT/cybersecurity staff, student affairs officers, departmental administrators
2	Kenyatta University	Security officers, ICT/cybersecurity staff, student affairs officers, departmental administrators
3	Jomo Kenyatta University of Agriculture and Technology (JKUAT)	Security officers, ICT/cybersecurity staff, student affairs officers, departmental administrators
4	Technical University of Kenya (TUK)	Security officers, ICT/cybersecurity staff, student affairs officers, departmental administrators
5	Multimedia University of Kenya	Security officers, ICT/cybersecurity staff, student affairs officers, departmental administrators
6	Co-operative University of Kenya	Security officers, ICT/cybersecurity staff, student affairs officers, departmental administrators

Source: ***Commission for University Education (CUE), Kenya; individual university accreditation records (2025).***

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Appendix IV: ISERC Letter

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Private Bag 00217 Limuru,
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(0) 736-424440

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REF: SPU/773/2026 **Date: 2nd June 2026**

TO: Erick Ouma Okeyo
St. Paul's University

Dear Erick,

==========

REF: The Influence of Governance Mechanisms on Security Management in Public Universities in Nairobi County, Kenya

==========

Greetings,

This is to inform you that SPU- Institutional Scientific Ethics Review Committee has reviewed the above-named research proposal. **Your ERB approval number is 783, for the period between 2nd June 2026 – 2nd June 2027 (1 year).**

This approval is subject to compliance with the following requirements;

i. Only approved documents including (informed consents, study instruments) will be used.
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SPU- Institutional Scientific Ethics Review Committee.
iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SPU- Institutional Scientific Ethics Review Committee within 72 hours of notification

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iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to *SPU- Institutional Scientific Ethics Review Committee* within 72 hours

v. Clearance for export of biological specimens must be obtained from relevant institutions.

vi. ISO: 9001:2015 CERTIFIED (KEBS)

vii. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.

viii. Submission of an executive summary report within 90 days upon completion of the study to SPU- Institutional Scientific Ethics Review Committee.

ix. Should there be any publications from your research, note that you are supposed to anonymize the particulars of the respondents, the identifiers and the name of institution (s) where you collected data.

x. Please note that it is within the ISERC's mandate to monitor your research and to do random visits to the site. All research is subject to post approval monitoring. Kindly provide a closure report after the research.

xi. Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) if you are collecting data in the country - https://research-portal.nacosti.go.ke or obtain other clearances needed in the country where you will collect your data from.

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Yours sincerely,



Dr. Daniel Nzengya, PhD Chairperson



SPU- Institutional Scientific & Ethics Review Committee

Appendix V: NACOSTI License

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **793903**

Date of Issue: **17/June/2026**

RESEARCH LICENSE



This is to Certify that Mr.. ERICK OUMA OKEYO of Saint Paul University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: THE INFLUENCE OF GOVERNANCE MECHANISMS ON SECURITY MANAGEMENT IN PUBLIC UNIVERSITIES IN NAIROBI COUNTY, KENYA for the period ending : 17/June/2027.

License No: **NACOSTI/P/26/4190827**

793903

Applicant Identification Number

Ag. Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions

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THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013 (Rev. 2014)
Legal Notice No. 108: The Science, Technology and Innovation (Research Licensing) Regulations, 2014

The National Commission for Science, Technology and Innovation, hereafter referred to as the Commission, was the established under the Science, Technology and Innovation Act 2013 (Revised 2014) herein after referred to as the Act. The objective of the Commission shall be to regulate and assure quality in the science, technology and innovation sector and advise the Government in matters related thereto.

CONDITIONS OF THE RESEARCH LICENSE

1. The License is granted subject to provisions of the Constitution of Kenya, the Science, Technology and Innovation Act, and other relevant laws, policies and regulations. Accordingly, the licensee shall adhere to such procedures, standards, code of ethics and guidelines as may be prescribed by regulations made under the Act, or prescribed by provisions of International treaties of which Kenya is a signatory to.
2. The research and its related activities as well as outcomes shall be beneficial to the country and shall not in any way;
    i. Endanger national security
    ii. Adversely affect the lives of Kenyans
    iii. Be in contravention of Kenya's international obligations including Biological Weapons Convention (BWC), Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), Chemical, Biological, Radiological and Nuclear (CBRN).
    iv. Result in exploitation of intellectual property rights of communities in Kenya
    v. Adversely affect the environment
    vi. Adversely affect the rights of communities
    vii. Endanger public safety and national cohesion
    viii. Plagiarize someone else's work
3. The License is valid for the proposed research, location and specified period.
4. Neither the license nor any rights thereunder are transferable.
5. The Commission reserves the right to cancel the research at any time during the research period if in the opinion of the Commission the research is not implemented in conformity with the provisions of the Act or any other written law.
6. The Licensee shall inform the relevant County Director of Education, County Commissioner and County Governor before commencement of the research.
7. Excavation, filming, movement, and collection of specimens are subject to further necessary clearance from relevant Government Agencies.
8. The License does not give authority to transfer research materials.
9. The Commission may monitor and evaluate the licensed research project for the purpose of assessing and evaluating compliance with the conditions of the License.
10. The Licensee shall submit one hard copy, and upload a soft copy of their final report (thesis) onto a platform designated by the Commission within one year of completion of the research.
11. The Commission reserves the right to modify the conditions of the License including cancellation without prior notice.
12. Research, findings and information regarding research systems shall be stored or disseminated, utilized or applied in such a manner as may be prescribed by the Commission from time to time.
13. The Licensee shall disclose to the Commission, the relevant Institutional Scientific and Ethical Review Committee, and the relevant national agencies any inventions and discoveries that are of National strategic importance.
14. The Commission shall have powers to acquire from any person the right in, or to, any scientific innovation, invention or patent of strategic importance to the country.
15. Relevant Institutional Scientific and Ethical Review Committee shall monitor and evaluate the research periodically, and make a report of its findings to the Commission for necessary action.

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Innovation(NACOSTI),
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