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ASSESSING PROJECT NEEDS IDENTIFICATION AND ITS IMPACT ON THE SUSTAINABILITY OF COMMUNITY DEVELOPMENT INITIATIVES IN KENYA: A CASE FROM KAJIADO COUNTY

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ABSTRACT

The sustainability of development projects is increasingly critical in addressing poverty and promoting inclusive growth; however, in arid and semi-arid areas like Kajiado County, many community-based initiatives fail due to poor Needs Identification, with up to 65% collapsing within three years despite substantial investment. This study examined how project needs identification influences the sustainability of the Health and Livelihood Improvement (HELI) Project in Kajiado County. Anchored on Maslow's Hierarchy of Needs Theory and supported by the Logical Framework Approach, Theory of Constraints, and Resource-Based View, the study adopted a descriptive research design targeting 1,000 stakeholders, from which 278 were sampled using simple random sampling in Olchoronyori and Oloirien villages. Data was collected using structured questionnaires and key informant interviews, with instruments showing strong validity (CVI = 0.81) and reliability (Cronbach's Alpha = 0.89). Analysis using SPSS v26 applied both descriptive and inferential statistics, revealing that Needs Identification significantly influenced sustainability. The study concluded that sustainability is best achieved through integrated needs identification and recommended participatory planning, capacity building, and policy integration. Further research in other geographic and sectoral contexts was suggested to validate and expand these findings.

Keywords: *Project Needs Identification, Sustainability, Community Development Initiatives, Kenya, Kajiado County*

INTRODUCTION

The sustainability of development projects has become a central pillar in the global discourse on inclusive economic growth, poverty alleviation, and community transformation. Sustained projects go beyond short-term gains by fostering long-term value through continued service delivery, local capacity building, and economic empowerment. The African Development Bank (AfDB, 2021) identifies sustainable development initiatives as vital drivers of employment creation in low-income regions, offering both direct and indirect opportunities in sectors such as health, agriculture, and education. Furthermore, the United Nations Development Programme (UNDP, 2022)

emphasizes that sustainable project outcomes contribute directly to the attainment of several Sustainable Development Goals (SDGs), notably SDG 3 (good health), SDG 8 (decent work and economic growth), and SDG 11 (sustainable cities and communities).

Needs identification is a critical phase in the project management cycle, providing the foundation for planning and intervention design. It involves identifying, analyzing, and prioritizing the community's needs to ensure that the project addresses actual challenges rather than perceived problems. Aghaegbuna et al. (2020) define it as the systematic detection of gaps between current and desired conditions, offering a roadmap for effective interventions. Filmalter and Steenkamp (2022) describe it as the diagnostic stage that guides project objectives and scope. Gatumi (2022) emphasizes the participatory nature of needs identification, arguing that involving stakeholders early ensures relevance and buy-in. Similarly, Flynn and Levie (2021) caution against top-down models of project development, which often fail to capture the community's genuine priorities.

The dimensions of needs identification typically include problem identification, priority setting, stakeholder consultation, and contextual analysis. For example, Matiku et al. (2021), in their study on conservation projects in Thailand, demonstrated that community involvement in need identification led to more targeted and effective solutions. Diing et al. (2022) emphasized a multi-phase assessment model that included stakeholder interviews, participatory rural appraisal, and baseline surveys to capture accurate needs. Ahmad and Haq (2021) further confirmed that pre-feasibility assessments in Pakistan improved project alignment with organizational and community objectives. In the context of this study, needs identification was operationalized through the following indicators: the existence of pressing community problems, clearly established community needs, prioritized issues based on community input, and alignment with available local resources.

STATEMENT OF THE PROBLEM

While community development projects play a vital role in improving livelihoods, healthcare access, and resilience in marginalized areas, their sustainability remains a major concern particularly in Kenya's arid and semi-arid lands (ASALs) like Kajiado County. Despite substantial donor and government investments, up to 65% of community projects fail within three years of implementation, often due to weak needs identification and a lack of sustainability frameworks (NGO Coordination Board, 2022; GoK, 2023). The Health and Livelihood Improvement (HELI) Project in Kajiado exemplifies these challenges, facing issues such as limited community engagement, poor resource mobilization, and inadequate continuity planning mirroring broader national trends of promising initiatives that fail to deliver lasting impact.

Previous research on project sustainability in Kenya has largely focused on urban or agriculturally productive regions, leaving ASAL counties like Kajiado underexplored. Studies in Nairobi and Kisumu (Wekesa, 2023), while informative, cannot be directly

applied to Kajiado's unique context of drought, poor infrastructure, and dispersed populations. According to the Kajiado CIDP (2023), over 40% of community-driven health and water projects have stalled or failed due to insufficient planning, short-term funding, and misalignment with local priorities underscoring the need for localized research on what drives or hinders project sustainability.

A conceptual gap also persists in the literature. While prior studies have examined elements like community participation, stakeholder engagement, or monitoring, few have holistically investigated how needs identification. Additionally, many existing studies rely solely on qualitative or descriptive methods, limiting the ability to draw generalizable or causal conclusions. Small, unrepresentative samples and lack of mixed-method approaches further reduce the applicability of findings in complex contexts like Kajiado. In response, this study examined how the integration of needs identification influences the sustainability of community development projects, using the HELI Project in Kajiado County as a case study. The goal was to provide empirical evidence to support more effective planning, resource use, and sustainable implementation across similar ASAL contexts.

OBJECTIVE OF THE STUDY

To assess the effect of needs identification on the sustainability of the community development Project in Kajiado County in Kajiado County, using the Health and Livelihoods Improvement (HELI) Project as a case study.

HYPOTHESIS

H₀₁: Needs identification does not significantly affect sustainability of community development projects in Kajiado, Kenya.

SIGNIFICANCE OF THE STUDY

This study will contribute to the body of knowledge on sustainable project management by examining the impact of needs identification on project sustainability, offering a context-specific perspective for arid regions like Kajiado County, where such integrated analyses are limited. For practitioners, including project managers, donors, and development agencies, the findings provide actionable insights into strategic planning, implementation, and post-project continuity, helping improve long-term outcomes and avoid common causes of project failure. Government institutions and policymakers can also benefit from the empirical evidence presented, which supports the development of frameworks and policies that promote sustainability in community initiatives. Additionally, the study serves as a reference for future researchers interested in evaluating sustainable project practices in similar socio-economic and geographic contexts.

SCOPE OF THE STUDY

This study examined community development projects in Kajiado County, Kenya, focusing on the Health and Livelihood Improvement (HELI) Project in Olchoronyori and

Oloirien. It explored how needs identification affects project sustainability. This factor was chosen due to its importance in the literature and relevance to challenges in arid and semi-arid regions. The target population included 1,000 households comprising beneficiaries, staff, and stakeholders involved in HELI. The study's geographic focus on Kajiado reflected its unique socio-economic and environmental challenges, as well as its history of donor-funded projects struggling with sustainability. Conducted from April 2024 to April 2025, the research included literature review, data collection, analysis, and reporting, enabling thorough stakeholder engagement and comprehensive data gathering from primary and secondary sources.

LIMITATIONS OF THE STUDY

Individuals selected were unwilling to participate in the study due to fear of victimization and due to confidentiality of the information. A letter of research authorization and an NACOSTI letter were provided to the respondents to indicate that the study is scholarly work. Some of the questionnaires were not returned, but the research made follow-up through telephone calls and physically revisiting the study to obtain adequate responses. There was a challenge of language barrier, which was countered by use of local research assistance for interpretation.

LITERATURE REVIEW

Theoretical Literature Review

This study was anchored on Maslow's Hierarchy of Needs Theory, which explains human motivation through a five-level pyramid: physiological, safety, social, esteem, and self-actualization needs (Maslow, 1943). The theory, which has evolved to include self-transcendence, is widely applied beyond psychology in fields like education, health, and development planning. It emphasizes that basic needs must be met before higher-level aspirations, making it particularly relevant for needs-based community development. The theory assumes that unmet fundamental needs dominate behavior, and communities prioritize needs hierarchically like individuals. In this study, Maslow's framework supports the needs identification variable by helping prioritize pressing issues such as food, water, and healthcare access before designing interventions. Despite criticism regarding its empirical validity and cultural variability, the theory remains useful in development contexts, as demonstrated in projects in India and Rwanda (Khasnobish & Dutta, 2020; Ndayishimiye et al., 2022). Here, it guides systematic needs identification in Kajiado County to improve project relevance and sustainability.

Empirical Literature Review

In their study, Matiku and colleagues (2021) focused on the role of community involvement or engagement in urban conservation initiatives in Thailand. They underscored the efficacy of community participation in identifying pressing environmental challenges and devising suitable solutions. The study revealed that communities are uniquely positioned to prioritize their needs and preferences when confronted with environmental issues. As a foundational step in formulating effective solutions, the researchers emphasized the critical

importance of comprehending the specific local context, encompassing social dynamics, existing conditions, and interrelationships between these factors.

In contrast, Diing et al. (2022) identified a significant inconsistency in assessing community needs within various projects implemented in China's Di Bao region. Their research highlighted concerns about the potential for manipulating needs assessments for personal gain. The authors advocated for a collaborative and multi-step needs assessment process to develop a broad and accurate conceptualization of community challenges. They argued that this knowledge is important for designing and implementing targeted interventions.

Flynn and Levie's (2021) research into Irish project management practices revealed a prevailing reliance on unstructured, impromptu methods for conceptualization and management. Their structured survey and subsequent statistical analysis revealed a dearth of formal processes in this domain. Consequently, the authors advocate for a more systematic and inclusive approach to idea generation, positing that such a methodology, aligned with organizational objectives and fostering diverse input, is crucial for project success. Expanding on this, Diing et al. (2022) delved into the intricacies of idea generation, development, and management. Their work underscores the pivotal role of inclusivity in stimulating creativity and unlocking a reservoir of competitive advantage. They emphasize the importance of rigorous evaluation to refine and validate ideas. They suggest participatory strategies, such as collaborative discussions, structured feedback mechanisms, and in-depth interviews, as essential tools for cultivating ideas with enduring impact.

Ahmad & Haq (2021) conducted a comprehensive examination of the significance of project selection methodologies within the Pakistani context. Their research outputs underscored the importance of judicious project selection in determining an organization's success. The authors asserted that establishing well-structured selection criteria is paramount, as the failure to do so could result in the initiation of unsuitable projects, thereby hindering the organization's progress towards its predetermined objectives. While generating many project ideas through brainstorming is commonplace, it is imperative to recognize that not all concepts are viable for implementation. Consequently, the authors emphasized the criticality of conducting pre-feasibility assessments and preliminary evaluations to identify and eliminate impractical projects before committing substantial resources. A core component of this process is the preliminary screening, which serves as a mechanism for discarding unpromising initiatives at an early stage. This evaluation encompasses a range of factors, including compatibility with the project proponent's vision, adherence to governmental policies and regulations, availability of necessary resources, financial feasibility, and an acceptable level of risk.

CONCEPTUAL FRAMEWORK

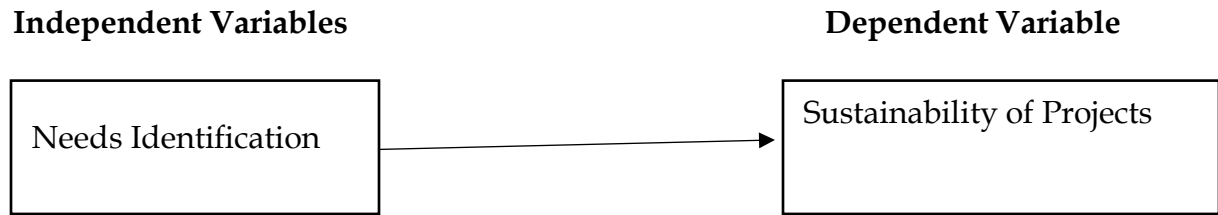


Figure 1: Conceptual Framework

METHODOLOGY

The research design employed is descriptive to determine the role played by the project management practices in sustaining community development in Kajiado County with respect to the Health and Livelihood improvement (HELI) project. The descriptive design was suitable since it allows the systematic gathering of factual information without manipulating variables to give a concise overview of the prevailing situations (Creswell and Creswell, 2018; Mugenda and Mugenda, 2003). The target population included stakeholders who were directly engaged or those who had a bearing on the HELI Project in Olchoronyori and Oloirien and they included, project coordinators, field officers, technical staff, community leaders, and project beneficiaries. These departments are the ones that have personal knowledge of needs identification and hence are vital in the determination of sustainability (Kombo and Tromp, 2006; Creswell and Creswell, 2018). The Kajiado County Development Plan (2023) shows that the population consisted of 1,000 people, 900 beneficiaries (89.8) and 100 staff/leaders.

Purposive and stratified random sampling was combined so that there could be a balance in the representation. The purposive sampling was adopted due to the targeted population, project staff and key informants, due to their specific knowledge, and stratified random sampling was used when appropriate to the household beneficiaries based on location. Based on a margin of error of 0.05 and Yamane (1967) formula, the sample was estimated as 278 respondents (27.8% of the population) which corresponds with 10-30 percent mentioned by Mugenda and Mugenda (2008) when dealing with large populations. It was done through a standardized questionnaire and a key informant interview guide. Questionnaires provided a consistent and simple analysis, and there were closed and open-ended questions to ensure the acquisition of the quantitative and qualitative views. This was supplemented by key informant interviews that brought out more information and setting. But the shortcomings of the study were considered to be in the form of strictness of literacy, potential low response rate, incomplete responses, and bias of the respondents.

Among 278 questionnaires sent, 220 questionnaires were returned, which is an acceptable response rate of 79.1 percent in terms of descriptive surveys (Babbie, 2015). The respondents were mostly men (57%), aged between 31 and 40 (52%), and mostly educated to secondary or diploma level meaning that there were active and informed participants. The initial analysis indicated that there is a positive, although insignificant, significant positive correlation between resource availability and the sustainability of the project ($r = .273, p < .05$), indicating that other factors do not play a minimal role, though sufficient resources lead to the formation of more positive projects.

FINDINGS

Descriptive Analysis

The analysis highlights that community participation in identifying project needs is a key factor in enhancing sustainability. A majority of respondents—108 (49.1%) and 41 (18.6%)—reported involvement in the initial phases of problem identification. The mean score ($M = 3.93, SD = 1.276$) indicates general agreement that participation in this stage supports long-term outcomes. Similarly, 114 (51.8%) and 36 (16.4%) affirmed that their communities helped select project priorities, with a mean of 4.02 ($SD = 1.210$). These findings suggest that participatory planning enhances local ownership and project relevance, both essential for sustainability.

Correlation Analysis

Following Cohen, West, and Aiken (2013), Pearson correlation analysis was conducted to assess the relationships between independent variable project needs identification (X1) and project sustainability. A modest but significant correlation was found ($r = 0.219^{**}, p < 0.05$), suggesting that aligning projects with local needs enhances sustainability. These results demonstrate that needs identification positively influence sustainability.

Regression Analysis

The ordinary least squares assumptions were tested before the regression analysis of the data was performed. Since the sample ($N = 203$) is large, the Kolmogorov-Smirnov test was used to determine the level of normality. The rule was to reject the null hypothesis of normal distribution in case the p-value was not less than the .05 level of significance. Table 1 demonstrates that, all the variables exhibit a p-value above .05 (stakeholder engagement, .200; sustainability of food security projects, .200), which means that the distributions did not deviate significantly out of normality.

Table 1. Results on Kolmogorov-Smirnov Test for Normality

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Needs Identification	.048	192	.200*	.995	192	.728

Sustainability of HELI Projects	.035	192	.200*	.997	192	.989
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Table 1 indicates that all the variables were normally distributed since the p-values obtained were greater than 0.5 obtained as follows: needs identification (0.200 > 0.05) and sustainability of HELI projects (0.200 > 0.05). Levene’s test was used to examine the homogeneity of variances (homoscedasticity). For Needs Identification, the Levene statistic was 1.434, p = .096. Because the p-value exceeded .05, the null hypothesis of equal error variances was not rejected, indicating no heteroscedasticity and supporting the use of regression analysis. Linearity was also confirmed using Pearson’s correlation test, which showed a significant positive linear relationship between stakeholder engagement and sustainability at p < .05. As correlation does not imply causation, regression analysis was conducted to estimate the effect of stakeholder engagement on sustainability.

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.781 ^a	.611	.593	.5521
a. Predictors: (Constant), Needs Identification				

Table 2 shows Dependent variable: Sustainability HELI Projects. Predictor: Needs Identification. Adjusted R² = .593 indicates that 59.3% of the variance in sustainability is explained by Needs Identification R = multiple correlation coefficient. Std. Error = standard error of the estimate.

Table 3: ANOVA Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.133	5	8.227	55.214	.000 ^b
	Residual	26.218	175	.149		
	Total	67.350	180			
a. Dependent Variable: Sustainability of HELI Projects						
b. Predictors (Constant), Needs Identification						

Table 3 shows that the ANOVA test for the regression model was significant, F (5, 175) = 55.214, p < .001. This indicates that the model as a whole significantly predicts the sustainability of HELI projects and that Needs Identification explains a significant proportion of the variance in the dependent variable.

Table 4: Regression Coefficients

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
	(Constant)	0.094	.364		0.258	.001	.359	1.379
	Needs Identification	0.293	.079	.304	3.212	.000	.098	.355

a. Dependent Variable: Sustainability of HELI Projects

Table 4 displays the regression coefficients for the model predicting the sustainability of HELI projects from Needs Identification. The unstandardized coefficient (B = 0.304, p < .001) shows a positive and significant effect, indicating that higher Needs Identification is associated with greater project sustainability.

CONCLUSION

The study set out to examine how Needs Identification influences the sustainability of community development using HELI Project in Kajiado County as a case study. The findings indicate that all needs identification contributes significantly to project sustainability. It is clear from the findings that sustainability is not an isolated outcome but a culmination of well-integrated needs identification.

RECOMMENDATIONS

The study recommends that to enhance sustainability, projects should focus on participatory need assessment that involves active local communities in the identification, prioritization, and validation of their development challenges. This kind of participation means that interventions will focus on actual as opposed to donor-fueled problems and help build community ownership, which is essential in maintaining the benefits once external assistance concludes. Inclusion of stakeholders in the design process absorbs multi-faceted views and lessens neglected issues, which consequently limits failure to the project and increases its effect over time.

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STRATEGIC LEADERSHIP AND INSURANCE PENETRATION IN KENYA: THE INTERPLAY OF GOVERNMENT REGULATIONS

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ABSTRACT

The relatively lower level of insurance penetration in Kenya has been attributed to a number of factors including lack of awareness on available insurance products, low income levels among the key consuming public, perceived low rate of returns for life policies, cumbersome claim settlement procedures, lack of trust of insurance players, and expensive premiums. The study objective was to establish the mediating effect of digital transformation on the relationship between strategic leadership and insurance penetration in Kenya. The study was guided by Strategic Leadership Theory, New Public Management (NPM) and Resource-Based Theory. Utilizing a cross-sectional survey design, the research targeted 58 licensed insurance companies in Kenya, employing a census sampling method to survey 232 participants, and data analyzed through descriptive and inferential statistics following a pilot study to refine the questionnaire. The study results revealed a very strong positive correlation ($R=0.979$) between the predictors (strategic leadership and government regulations) and insurance penetration. This indicates that the combined effect of these factors significantly enhances insurance penetration. Additionally, the R^2 value of 0.958 suggests that approximately 95.8% of the variation in insurance penetration can be explained by strategic leadership and government regulation. Both factors, strategic leadership and government regulations, individually contribute to increasing insurance penetration, and their combined interaction further strengthens this effect, demonstrating a substantial influence on the sector's growth. The analysis also indicates that government regulations moderate the impact of strategic leadership, altering its direct effect on insurance penetration. These findings highlight the importance of considering both leadership and regulatory frameworks together when developing strategies to enhance insurance market penetration. The study recommends that, policymakers and industry leaders in Kenya focus on strengthening both strategic leadership and government regulations to enhance insurance penetration. Efforts should be made to foster effective leadership practices that are responsive to market needs while simultaneously developing and enforcing regulatory frameworks that support industry growth. Given that government regulations moderate the impact of strategic leadership, a coordinated approach that aligns leadership initiatives with regulatory policies will be crucial. This

integrated strategy will help create an enabling environment that maximizes the positive effects of leadership and regulation on expanding insurance coverage across the country..

Keywords: *Strategic Leadership, Government Regulations, Insurance Penetration*

INTRODUCTION

According to KPMG (2020), an insurance policy is a financial arrangement that protects against potential future losses or damages. It involves a contract, known as an insurance policy, between an individual or entity (the insured) and an insurance company (the insurer). In this contract, the insured pays a premium in exchange for the insurer's promise to cover certain risks, such as health issues, property damage, or liability claims. The primary purpose of insurance is to mitigate financial risks by pooling resources from many policyholders. When a loss occurs, the insurer compensates the insured according to the terms of the policy. This system helps individuals and businesses manage uncertainties and provide peace of mind (KPMG, 2020). Insurance penetration is a key metric used to assess the development of the insurance sector within a country. It is defined as the ratio of total insurance premiums collected to the country's Gross Domestic Product (GDP), expressed as a percentage. This measurement indicates how much of a country's economic activity is covered by insurance (Insurance Information Institute, 2023). Today, global insurance premiums account for 7.1% of the world's economic activity, and the industry's weight has increased by one percentage point in the last ten years. Translating this percentage into absolute figures reveals that premiums exceeded USD 6.8 trillion in 2021.

In East Africa, Kenya stands out as a major player in the insurance sector, boasting a relatively developed market compared to its neighbors (FSD Africa, 2023). The Kenyan insurance industry has experienced notable growth in recent years, fueled by increasing awareness of insurance benefits, a growing middle class, and supportive government policies (IRA, 2021). However, despite this progress, the insurance penetration rate in Kenya remains significantly below the global average, as indicated by the Kenya National Bureau of Statistics (KNBS, 2023). This low penetration rate suggests that a large portion of the population remains uninsured, exposing them to various risks and hindering their financial well-being. However, despite these efforts, the insurance penetration rate in Kenya remains low, highlighting the need for further research to understand the underlying factors hindering insurance uptake. This study seeks to contribute to this understanding by examining the role of strategic leadership, digital transformation, and government regulations in influencing insurance penetration in Kenya. By investigating the interplay between these factors, the study aims to identify potential strategies for enhancing insurance coverage and promoting financial inclusion in the country.

Insurance companies could benefit from the adoption of strategic leadership. Strategic leadership involves making short-term choices that ensure long-term organizational survival (Wang et al., 2021). Leadership planning with strategic awareness improves organizational success (Asif et al., 2020). Thus, insurance companies' leadership may effectively connect human resources to service delivery. Strategic leadership is

management's capacity to forecast and set a strategy direction and construct strategic thinking to drive strategic change and ensure the organization's future. Strategic leadership requires the capacity to command, lead change, think strategically, and improve staff skills and competences, according to Stringham (2020). According to Ireland et al. (2020), strategic leadership involves strategic direction, thinking, transformation, human capital development, and core competency exploitation.

According to Hitt et al. (2020), strategic leadership includes CEOs, business unit heads, TMTs, boards of directors, and dominating coalitions. Strategic leadership, according to Carpenter et al., (2019), encompasses the complete range of actions and strategic decisions of top executives. Relations are emphasized in strategic and symbolic operations. When strategic leadership is effectively implemented in public institutions, it ensures that rules and procedures are successfully embedded in the organisation. Strategic direction is a shared understanding of the organization's goals and objectives, and it is essential for the successful implementation of any strategic plan. Hambrick and Pettigrew (2019) distinguish between leadership and strategic leadership, arguing that the former is concerned with all levels of management in an organisation, while the latter is focused on the top leadership team.

Government regulations play a crucial role in shaping the insurance landscape in Kenya. Government regulations in the insurance sector are essential for protecting consumers, ensuring market stability, promoting fair competition, enhancing transparency, and adapting to changes in the industry. These regulations create a framework that supports the sustainable growth of the insurance market while safeguarding the interests of policyholders and the economy at large. The Insurance Regulatory Authority (IRA) serves as the primary regulatory body, responsible for overseeing the licensing, operations, and financial soundness of insurance companies (Insurance Regulatory Authority, 2023). It enforces various laws and regulations, including the Insurance Act and its accompanying schedules, aimed at safeguarding the interests of policyholders and ensuring the stability of the insurance sector. These regulations cover a wide range of aspects, including capital requirements, solvency margins, investment guidelines, product approval processes, and consumer protection measures (Insurance Regulatory Authority, 2023). For instance, insurance companies are required to maintain adequate capital reserves to cover potential claims and ensure their financial stability, as stipulated in the Insurance (Amendment) Act, 2019. They must also adhere to strict investment guidelines to protect policyholder funds and ensure the availability of resources to meet future obligations.

STATEMENT OF THE PROBLEM

The insurance system plays a crucial role in helping an economy maintain stability and grow by providing individuals or entities with financial protection or compensation for losses through insurance firms (AIsedomi & Chijuka, 2024). The insurance industry in Kenya is growing in importance and it has been identified in the Vision 2030 as critical in

the country's transformation under the economic pillar. The low insurance penetration rate in Kenya, stagnating at a mere 2.3% as of FY 2022 (KNBS, 2023), presents a complex and multifaceted issue with significant ramifications for individuals, businesses, and the nation's overall economy. The relatively lower level of insurance penetration in Kenya has been attributed to several factors including lack of awareness on available insurance products, low-income levels among the key consuming public, perceived low rate of returns for life policies, cumbersome claim settlement procedures, lack of trust of insurance players, and expensive premiums, among others (Mutanda, 2021).

Despite the insurance sector experiencing growth in gross premiums (Cytonn Investments, 2023), the stagnant penetration rate underscores a critical failure to extend the protective umbrella of insurance to a broader segment of the population. This leaves a significant portion of Kenyans, particularly those in the informal sector, vulnerable to the financial shocks of unforeseen events like accidents, illnesses, or natural disasters. For individual citizens, the lack of adequate insurance coverage can lead to devastating financial consequences due to unexpected medical bills, property damage, or loss of income. Uninsured individuals and families are often forced into debt, poverty, or both (IRA, 2021). The most significant risk for small and medium firms in Kenya, resulting from a lack of insurance coverage, would have a substantial influence on the business's performance. The potential business risk arises from factors such as theft, competition, operational expenses, and the possibility of asset loss from fire incidents, loan availability, political influences, drought conditions, and occupational health risks (IRA, 2021)

OBJECTIVE

To assess the moderating effect of government regulations on the relationship between strategic leadership and insurance penetration in Kenya.

LITERATURE REVIEW

Theoretical Framework

Strategic Leadership Theory

Strategic leadership theory (SLT) emphasizes the role of effective leaders in shaping organizational outcomes through vision, strategic thinking, and transformative change (House & Baetz, 1979). Leaders anticipate changes, align resources, and promote innovation to achieve competitive advantage. While SLT offers valuable insights, it has been criticized for its individualistic focus and challenges in isolating leaders' specific contributions (Zia-ud-Din et al., 2017). In the Kenyan insurance industry, strategic leadership is crucial to addressing low penetration. Leaders must navigate challenges like low financial literacy, limited trust, and the informal sector's dominance (IRA, 2021; World Bank, 2022). They need innovative strategies such as tailoring products to the informal sector, leveraging digital technologies, and building trust through transparent services.

Strategic Leadership Theory is particularly relevant in this context for several reasons. The first one is that strategic leadership is essential for guiding organizations through digital

transformation, which is increasingly critical in the insurance industry. Leaders who adopt a strategic approach can effectively leverage technology to enhance operational efficiency, improve customer experiences, and innovate product offerings (Bharadwaj et al., 2013). As the insurance sector in Kenya faces pressures to modernize and adapt to digital trends, strategic leaders are tasked with creating a vision that aligns digital initiatives with the overall business strategy. This alignment is crucial for ensuring that digital transformation efforts contribute to increased insurance penetration and market competitiveness. Strategic Leadership Theory underscores the importance of creating and sustaining a competitive advantage. Leaders who can identify unique market opportunities and align their organizations' resources and capabilities accordingly are better positioned to thrive in competitive environments (Muriuki et al., 2020). In Kenya's insurance market, where penetration rates are still developing, strategic leaders can capitalize on emerging trends and consumer needs to differentiate their offerings and attract more customers.

The New Public Management (NPM)

The New Public Management (NPM) theory, introduced by Hood (1991), advocates for reorganizing the public sector to improve efficiency and effectiveness by incorporating private sector practices. The New Public Management (NPM) is considered a theory that emerged in the late 20th century. It was developed as a response to the perceived inefficiencies in public sector management and is characterized by the adoption of private sector management practices within public administration. This theory assumes that applying business-like principles to public service delivery can enhance the quality and value of services for citizens (Mongkol, 2011). NPM principles can be applied to public management, impacting service delivery and organizational performance. These principles emphasize ethics, transparency, equality, justice, responsibility, accountability, prudence, participation, responsiveness to public needs, and efficient management of public organizations. According to Mongkol (2011), NPM reforms aim to enhance public service quality, reduce spending, improve government efficiency, and enhance policy implementation. The emergence of NPM was influenced by the perceived inefficiencies of large, monopolistic public bureaucracies (Andrews, 2012). NPM focuses on using market practices to improve the public sector's effectiveness (Zungura, 2014). Key components of NPM include performance management, e-governance, contracting out and outsourcing, decentralization, and accountability.

The Resource-Based Theory

Strategic Leadership Theory is a relatively recent field of study that emerged in the late 20th century. While there isn't a single definitive "founder," several scholars played pivotal roles in its development. The Resource-Based Theory (RBT), developed in 1984, focuses on an organization's utilization of valuable competencies and both tangible and intangible resources to enhance productivity (Zacharias et al., 2015). One of the key contributors is Sydney Finkelstein. His work, along with Donald C. Hambrick and Albert A. Cannella Jr., has been instrumental in shaping the field. Their book, "Strategic Leadership: Theory and

Research on Executives, Top Management Teams, and Boards," published in 2008, is considered a foundational text. Resources refer to assets owned or controlled by the organisation, while capabilities are the organization's ability to effectively utilize those resources (Steinle & Schiele, 2008). Success and excellence within an organisation depend on providing optimal and suitable resources that align with business and strategic objectives (Sarason & Tegarden, 2013). The Resource-Based View (RBV) emphasizes an organization's ability to effectively utilize its resources and knowledge, focusing on internal factors that the organisation controls. Competencies and resources are fundamental to developing an organizational plan, and the unique combination of resources determines an organization's competitive position. Organizations differ in their possession of distinct resources, both physical and intangible, and their ability to effectively utilize these assets (Zacharias et al., 2015).

Empirical Literature Review

Strategic Leadership, Government Regulations and Insurance Penetration

The study by Rupilu and Tanan (2023) evaluated the determinants of corporate social responsibility (CSR) disclosure in state-owned enterprises using government regulation and organizational slack as moderators. Hypotheses and statistical analysis were used in quantitative research. The study only included manufacturing enterprises in the mining, energy, and oil & gas sectors of Indonesia Stock Exchange-listed State-Owned Enterprises. 40 firms were observed from 2018 to 2022. The investigation started with descriptive statistics, classical assumption tests, and hypothesis testing. This research tested hypotheses using multiple regression analysis with moderating factors. The study found that Green Accounting, Good Corporate Governance, Financial Performance, and leverage variables affected Corporate Social Responsibility, while government regulation and organizational slack did not moderate the relationship. The present research will examine how government regulations moderate strategic leadership and insurance penetration in Kenya.

A study by Mbole, Arasa and Mang'unyi (2021) examined the moderating effect of government policies (GP) on the relationship between Corporate Social Responsibility (CSR) and Financial Performance (FP) of cement manufacturing companies in Kenya. The study undertook an extensive literature review that looked into the history of CSR, CSR theories, different CSR models, and an empirical review on the topic. The study adopted a positivist research paradigm approach. The survey design collected both primary and secondary data. The data was analyzed using both descriptive and inferential statistics. The relationship of interest was established using Structural Equation Modelling (SEM). The study population comprised of workers in cement manufacturing companies in Kenya. The total population was 624, and sample size was 255. A response rate of 80.3% was achieved. The study established that government policies have a negative moderating effect ($\beta = -0.891$) on the relationship between corporate social responsibility initiatives and financial performance of cement manufacturing companies in Kenya. The study

concluded that GP has a negative effect on the relationship between CSR initiatives and FP. Based on the research findings, the study recommends that cement manufacturing companies should endeavor to understand different government policies that have implications on the relationships between corporate social responsibility and financial performance and align their operations accordingly. The current study will assess the moderating effect of government regulations on the relationship between strategic leadership and insurance penetration in Kenya.

In 2023, Gichuhi explored how organizational environment moderates the effect of shared leadership on organizational resilience in Kenya's telecommunications industry. Quantitative and cross-sectional descriptive survey designs were employed. The Managerial Grid of Leadership Theory, Transformational Leadership Theory, and Socio-Exchange Theory underpinned the research. Stratified sampling was used to choose 384 senior and support professionals among 9,847 Kenyans from 19 leading telecommunication providers. Validated surveys gathered data. SPSS version 27 was used to test hypotheses and calculate correlation coefficients. The research analyzed data using descriptive statistics, correlation, and multiple and simple linear regression. The research indicated that shared leadership substantially impacted organizational resilience in Kenyan telecom enterprises. The research indicated that shared leadership substantially affected organizational resilience in Kenyan telecom enterprises. The association between shared leadership and organizational resilience was also moderated by organizational environment. The present research will examine how government regulations moderate strategic leadership and insurance penetration in Kenya.

The extant study by Kayago, Ondari, Omari, and Akuku (2023) examined how innovation moderates the link between transformational leadership characteristics and SEKEB county organizational performance. This research used transformational leadership theory, backed by stakeholder, strategic leadership, and resource-based vision theories. Pragmatism led the research. We utilized descriptive research. Out of 408 target respondents, 289 were employed. This research employed stratified random sampling. Data was collected using questionnaires. Data was analyzed using descriptive statistics, including mean, standard deviation, skewness, kurtosis, percentages, and frequencies. Strength of variable relationships was determined using the Pearson-moment correlation coefficient. Simple linear, multilevel, and hierarchical regressions were used to analyze the variables' associations and estimate their direct, combined, and moderating effects. The research found that innovation moderates the association between individualized consideration dimension and organizational effectiveness. This research will evaluate how government restrictions and digital transformation modify the association between strategic leadership and insurance penetration in Kenya.

METHODOLOGY

Research Design

Research design, as defined by Rubin and Babbie (2011), is the systematic arrangement of frameworks to establish causal relationships in quantitative research. This study adopts a cross-sectional survey design, ideal for determining the prevalence of a phenomenon at a specific point in time (Kumar, 2014). This approach efficiently collects data from a large sample using a single questionnaire, ensuring consistency and reducing bias (Bhattacharjee, 2012). This study aims to determine the effect of strategic leadership, digital transformation, government regulations, and insurance penetration in Kenya. The cross-sectional survey design will provide insights into the prevalence of these factors and their associations, informing future research and recommendations. Focusing on a single organisation, the cross-sectional approach will examine multiple variables simultaneously. By administering a structured questionnaire to key stakeholders within the insurance industry, data will be collected on strategic leadership, digital transformation, government regulations, and insurance penetration, revealing their prevalence, associations, and potential impacts.

Target Population

According to Newing (2011), the term "population" refers to a collection of objects, individuals, or events that share similar characteristics and constitute the unit of study. Kothari (2014) similarly defines it as all items or observations relevant to the researcher's area of inquiry. In this study, the population consisted of 58 insurance companies operating in Kenya as of December 31, 2024 (Appendix III). The target population, also known as the theoretical population, encompasses the entire group of objects or individuals, whether firms or persons, that the researcher is interested in for making generalized conclusions about the findings (Kothari, 2014). A census was conducted on this target population, including all 58 insurance firms listed by the Insurance Regulatory Authority as operating in Kenya as of 31st December 2024. The unit of observation for this study was the 4 top-level executives and senior managers at the head offices of these insurance companies. These individuals are responsible for strategic decision-making, implementation of digital transformation initiatives, and ensuring compliance with government regulations. Therefore, their perspectives and insights are crucial for understanding the factors influencing insurance penetration in Kenya. This choice is justified because these individuals are directly involved in strategic decision-making processes, including the formulation and implementation of strategies related to digital transformation and adherence to government regulations. They also have a comprehensive understanding of the challenges and opportunities facing the insurance sector in Kenya, making their perspectives invaluable for this research.

Sample Frame and Sampling Technique

Kabir (2016) defines a sampling design as a systematic approach and methodology used to choose a sample from a specified target population, together with the corresponding estimate formula used to calculate sample statistics. A sample is a subset drawn from a

population using a defined procedure (Saunders, Lewis, Thornhill & Bristow, 2015). The study adopted a census sample method to meet its objectives by focusing on all 58 insurance companies in Kenya. The unit of observation in this study, representing the respondents, was the 4 top-level executives and senior managers in each of the 58 insurance companies in Kenya, including the Chief Executive Director, Finance Manager, and ICT Manager. The study had a total of 232 respondents who were selected from each insurance company using a purposive sampling technique (Afifah & Daud, 2018) to obtain key and rich information on strategic leadership, digital transformation, and government regulations regarding insurance penetration in Kenya.

Data Collection Instruments and Procedures

Data collection is a methodical procedure of collecting data with the purpose of generating information that may be used to validate or invalidate study conclusions, as stated by Kombo and Tromp (2013). The researchers will use a closed-ended survey questionnaire as their data collecting instrument, as suggested by Mugenda and Mugenda (2013) and Kothari and Gaurav (2014). The researcher will implement a pick-and-drop method, utilizing four trained research assistants to distribute and collect the questionnaires from respondents for completion. This choice was made due to the questionnaire's cost-effectiveness, convenience, and non-intrusive nature. The present study used a closed-ended questionnaire that was partitioned into five distinct parts.

Pilot Study

This study utilized 6% of the target population for the pilot study. Specifically, three licensed insurance companies were involved, with four respondents from each company participating. Thus, the total number of participants in the pilot study was 16. The four licensed insurance companies selected for the pilot study were located in Nairobi, where the majority of licensed insurance companies have their headquarters and where the primary study respondents were employed. These individuals participated in the pilot test by completing the questionnaire. However, it was important to note that these participants were excluded from the main study to mitigate potential biases in outcomes and replications, as recommended by Kothari and Garg (2014). The selected individuals were informed about their participation in the pilot test and their exclusion from the main study to ensure transparency and ethical conduct in research practices. Additionally, their feedback and responses during the pilot test were used to refine and improve the questionnaire before its administration to the larger sample of respondents. The questionnaire for the pilot project was sent to the chosen respondents using a drop-off and pick-up method, followed by telephone follow-ups to optimize the response rate.

Reliability

Reliability refers to the degree to which a data collection instrument consistently produces the same results when administered across different locations, populations, or times. As noted by Cooper and Schindler (2014), the focus of reliability in a data collection tool is on estimating the extent to which measurements are free from unstable or random errors. This

means that a reliable instrument allows researchers to have greater confidence that external factors, whether situational or transient, are not influencing the results. Cooper and Schindler (2014) further assert that a reliable tool is robust; it performs effectively across various times and conditions. The distinction between differing conditions and times forms the foundation for commonly referenced concepts of reliability, including equivalence, stability, and internal consistency.

In this study, reliability was assessed based on the internal consistency of the research data collection tool, specifically a closed-ended questionnaire. The evaluation was conducted using Cronbach's alpha, which, according to Bryman and Bell (2015), is one of the most widely used coefficients for assessing the reliability of a research instrument. The value of Cronbach's alpha ranges from 0.00 to 1.00, with a conventional acceptance threshold set at 0.70 or higher. This means that for a study instrument to retain an item, question, or statement on a scale, it should achieve a Cronbach's alpha of at least 0.70. This study will adhere to this established criterion.

Validity

The concept of validity pertains to the extent to which research accurately assesses the construct it claims to assess. According to Cooper and Schindler (2014), the primary ideas of validity include internal and external validity. The external validity of study results refers to the extent to which the research data may be generalized to diverse contexts, time periods, and individuals. The concept of internal validity pertains to the extent to which a research instrument accurately measures the intended construct or phenomenon in a given study. The salient inquiry in this context is whether the research instrument effectively assesses the intended construct as asserted by its creator.

A study by Sekaran and Bougie (2016) assert that validity is a crucial indicator that assesses the extent to which a research instrument accurately measures the intended construct. There are four distinct types of validity, namely face validity, concurrent validity, predictive validity, and content validity. According to Mugenda (2013), the primary measure of the extent to which the data gathered in a research accurately reflects the content of the idea being investigated is content validity. Therefore, content validity is used in the current study. The questionnaire underwent expert evaluation with the involvement of colleagues and supervisors to evaluate the coherence and comprehensiveness of the questionnaire.

Diagnostics Tests

Diagnostic tests were carried out by the researcher before the multiple regression analysis. Testing statistical issues and ensuring adherence to the classical linear regression model (CLRM) was beneficial. Homoscedasticity, multi-collinearity, normality, linearity, and autocorrelation are among the diagnostic tests. These techniques were used to make sure that drawn conclusions do not violate any of the multiple regression analysis's assumptions.

Model for the Study

The model checks how the “prediction of a dependent variable, P, from an independent variable differs across levels of a third variable, L” (Baron and Kenny, 1986). Variable moderation has an impact on the strength and direction of the relationship between predictors and an outcome thus increasing, reducing, or affecting the influence of the predictor variable.

The model for the study:

$$P = \beta_0 + \beta_1 SL + \varepsilon \dots\dots\dots (i)$$

Finally, model 6 was used to estimate direction and effect of the moderator on the independent variable and the total effect of the moderator on the dependent variable by interacting the moderating variable and the predictor variable.

$$P = \beta_0 + \beta_1 SL + \beta_2 GR + \varepsilon \dots\dots\dots (ii)$$

$$P = \beta_0 + \beta_1 SL + \beta_2 GR + \beta_3 SL *GR + \varepsilon \dots\dots\dots (iii)$$

Where; P = Insurance Penetration; SL = Strategic Leadership; GR = Government Regulations; β_0 = Constant; $\beta_1 \dots \beta_3$ = Beta coefficient; SL *GR = interaction term; ε = Error term.

FINDINGS AND DISCUSSIONS

Demographic Characteristics

The results in table 1 shows that 19.4% of the respondents indicated they had worked for the organisation below 1 year, while 21.4% indicated that they had worked between 1-5years. Those who had worked for 6-10years were 33.3% and finally those with work experience of over 10 years were 25.9%. The results indicate a diverse range of experience levels among respondents, with a significant portion (59.2%) having between 6 years and above of experience. This group represents a critical segment of the workforce that likely possesses a solid understanding of the industry, including its challenges and opportunities. The presence of respondents with less than one year of experience (19.4%) suggests that there is also a fresh perspective being brought into the industry, which can be valuable for understanding current trends and the impact of digital transformation and government regulations.

Table 1: Demographic Characteristics

Demographic Profile		Frequency	Percentage
Experience of Respondents	Less than 1 year	39	19.4
	1- 5 years	43	21.4
	6 - 10 years	67	33.3
	Over 10 years	52	25.9
Level of Education	Diploma	8	4
	Bachelor’s Degree	112	55.7%
	Master’s Degree	72	35.8%

Position in the organisation	Doctorate or PhD	9	4.5%
	Chief Executive Director	37	18.4
	Finance manager	53	26.4
	Risk and compliance manager	56	27.9
	ICT manager	55	27.4

It is evident from the results presented in Table 1 that the majority of the registered insurance companies in Kenya staff have a bachelor's degree as the highest academic qualification at 55.7% of the respondents, while 35.8% of the respondents had a Master's degree as their highest qualification, and 4.5% had a Doctorate or PhD as their highest educational qualification.

This indicates that individuals with undergraduate and postgraduate degrees (91.5%) possessed a solid understanding of the organizational structure and leadership, making them well-qualified to respond to the study's questions. Employees with higher educational attainment tend to perform their roles more effectively, as advanced education equips them with the necessary knowledge and skills, along with the capacity and expertise to guide the organisation toward success. The demographic analysis reveals that Chief Executive Directors (18.4%) hold significant leadership roles, providing valuable insights into strategic leadership and its impact on organizational performance, particularly regarding insurance penetration and digital transformation initiatives. Finance Managers (26.4%) play a crucial role in understanding the financial implications of strategic decisions and regulatory compliance, which are essential for the sustainability and growth of insurance products. The largest group, Risk and Compliance Managers (27.9%), is vital for navigating the regulatory landscape, ensuring adherence to regulations while identifying barriers to insurance penetration and best practices for compliance. Lastly, ICT Managers (27.4%) are critical in driving digital transformation, enhancing operational efficiency, and facilitating the adoption of innovative insurance products, making their perspectives essential for assessing the effectiveness of technology initiatives in the sector.

Hypothesis Testing

Strategic Leadership, Government Regulations and Insurance Penetration

The objective of this study was to assess the moderating role of government regulations on the relationship between strategic leadership and insurance penetration in Kenya. This objective was pursued by testing the hypothesis: $H0_1$, which states that government regulations have no moderating role on the relationship between strategic leadership and insurance penetration in Kenya. To evaluate this null hypothesis, a hierarchical multiple regression analysis was employed. The moderation effect was examined using the linear regression capabilities in SPSS version 28, following the methodology established by Baron

and Kenny (1986). This process involved analysing the regression relationships among strategic leadership, government regulation, and insurance penetration in Kenya. The regression analysis was conducted in a hierarchical manner; specifically, an interaction term derived from the product of strategic leadership and government regulation, was included as an additional predictor in the model. The hierarchical regression models utilized in this analysis are elaborated upon in the following sections. The results of this test were presented in Table 2.

Table 2: Model Summary: strategic leadership, government regulation, and insurance penetration

Mod	R	Adjusted R Square	Std. Error of Estimate	Change in R Square	F Change	df1	df2	Sig. Change
1	.654 ^a	.428	.37162	.428	73.933	2	198	.000
2	.979 ^b	.958	.10054	.531	2508.339	1	197	.000

a. Predictors: (Constant), strategic leadership, government regulation

b. Predictors: (Constant), strategic leadership, government regulation, Interaction Term

The results presented in Table 2 for Model 1, referred to as the Baseline Model, analyse the relationship between strategic leadership and government regulations as predictors of insurance penetration in Kenya. This model aims to provide insights into how these two factors influence the level of insurance penetration within the country. The multiple correlation coefficient (R) is 0.654, indicating a moderately strong positive correlation between the strategic leadership and government regulations and the dependent variable insurance penetration in Kenya, suggesting that as strategic leadership and government regulations improve, insurance penetration is likely to increase. The R Square value of 0.428 signifies that approximately 42.8% of the variance in insurance penetration can be explained by the two predictors (strategic leadership and government regulations), highlighting their significance in influencing insurance penetration in Kenya. The adjusted R Square value of 0.422 accounts for the number of two predictors (strategic leadership and government regulations) in the model and provides an estimate of the variance explained, indicating that the model remains robust despite the inclusion of multiple predictors. Furthermore, the significance of the F Change statistic is reported as 0.000, which indicates that the model is highly statistically significant, confirming that the relationship between the strategic leadership and government regulations on insurance penetration is not due to random chance.

Model 2 is the Moderation Model, it examines the relationship between strategic leadership, government regulations, and their interaction term as predictors of insurance penetration in Kenya. The multiple correlation coefficient (R) is 0.979, indicating a very strong positive correlation between the predictors (strategic leadership and government regulations) and insurance penetration. This suggests that the combined effects of strategic

leadership, government regulations, and their interaction significantly enhance insurance penetration. The R Square value is 0.958, which indicates that approximately 95.8% of the variance in insurance penetration is explained by strategic leadership and government regulations, demonstrating an exceptional level of explanatory power. The adjusted R Square value is also 0.958, which is very close to the R Square, indicating a strong and robust model that accurately reflects the variance explained by the strategic leadership and government regulations. The change statistics reveal an R Square change of 0.531, signifying a substantial increase in explanatory power from Model 1 to Model 2. This large increase indicates that the inclusion of the interaction term significantly improves the model's predictive capability. The F Change statistic is reported as 2508.339, which is exceptionally high, suggesting that the increase in variance explained by the interaction term is highly statistically significant.

Furthermore, the significance of the F Change is confirmed by a p-value of 0.000 ($p < 0.001$), indicating that the addition of the interaction term significantly enhances the model's fit. This suggests that government regulations moderate the relationship between strategic leadership and insurance penetration, reinforcing the importance of considering regulatory contexts in leadership strategies aimed at improving market performance. The inclusion of the interaction term significantly improved the model's fit, demonstrating the importance of considering the moderating effect of government regulations when examining this relationship. This suggests that the impact of strategic leadership on insurance penetration varies depending on the level of government regulations. The results of this hierarchical regression analysis provide compelling evidence that government regulations play a significant moderating role in the relationship between strategic leadership and insurance penetration in Kenya. The inclusion of the interaction term significantly improved the model's fit, demonstrating the importance of considering the moderating effect of government regulations when examining this relationship. This suggests that the impact of strategic leadership on insurance penetration varies depending on the level of government regulations.

Table 3: ANOVA for strategic leadership, government regulations, and insurance penetration

Model		Sum of Square	df	Mean Square	F	Sig.
1	Regression	20.421	2	10.210	73.933	.000 ^b
	Residual	27.345	198	.138		
	Total	47.766	200			
2	Regression	45.774	3	15.258	1509.562	.000 ^c
	Residual	1.991	197	.010		
	Total	47.766	200			

a. Dependent Variable: insurance penetration

b. Predictors: (Constant), strategic leadership, government regulations

Model	Sum of Square	df	Mean Square	F	Sig.
<i>c. Predictors: (Constant), strategic leadership, government regulations, Interaction Term</i>					

According to ANOVA results in Table 3, the Model 1 results, which focuses on the regression analysis with strategic leadership and government regulations, the Sum of Squares provides important insights into the variance explained by these predictors in relation to insurance penetration. The Regression Sum of Squares is 20.421, which represents the amount of variance in insurance penetration that can be explained by the predictors—strategic leadership and government regulations. This value indicates that these two predictors account for a significant portion of the variability in insurance penetration. In contrast, the Residual Sum of Squares is 27.345, reflecting the variance in insurance penetration that remains unexplained by the model. This suggests that while strategic leadership and government regulations are important factors, there are other influences on insurance penetration that are not captured in this model. The Total Sum of Squares is 47.766, representing the overall variance in insurance penetration. It is calculated as the sum of the regression and residual sums of squares, indicating the total variability present in the data. Thus, Model 1 highlights the contributions of strategic leadership and government regulations to explaining insurance penetration while also acknowledging the existence of other unmeasured factors affecting this outcome.

Additionally, Table 3 Model 2, which focuses on the regression analysis with the interaction term, the Sum of Squares reveals significant insights into the relationship between strategic leadership, government regulations, and insurance penetration. The Regression Sum of Squares increases significantly to 45.774, indicating that the inclusion of the interaction term—representing the combined effect of strategic leadership and government regulations—substantially enhances the model's explanatory power. This suggests that the interaction between these predictors plays a crucial role in influencing insurance penetration. In contrast, the Residual Sum of Squares decreases to 1.991, reflecting that the model now explains a much larger portion of the variance in insurance penetration compared to Model 1. This reduction in unexplained variance highlights the effectiveness of including the interaction term in the analysis.

The Total Sum of Squares remains the same as in Model 1 at 47.766, reflecting the overall variance in insurance penetration. The F-statistic for this model is exceptionally high at 1509.562, indicating a very strong relationship between the predictors and insurance penetration. This suggests that the interaction term significantly enhances the model's ability to explain the variance in the dependent variable. Furthermore, the significance associated with the F-statistic is reported as 0.000, confirming that the addition of the interaction term significantly improves the model's fit. This reinforces the conclusion that government regulations play a crucial moderating role in the relationship between strategic leadership and insurance penetration, emphasizing the importance of considering the interaction effects in understanding the dynamics of these variables within the

insurance sector. The ANOVA results indicate a significant relationship between strategic leadership, government regulations, and insurance penetration in Kenya. The analysis highlights the importance of considering the moderating role of government regulations in enhancing the effectiveness of strategic leadership, providing valuable insights for both insurance companies and policymakers aiming to improve market outcomes.

Table 4: Model Coefficients for Strategic Leadership, Government Regulations, and Insurance Penetration

Model	Unstandardized Coefficients		Standardize Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Lower Bound	Upper Bound
1 (Constant)	2.458	.187		13.154	.000	2.089	2.826
1 strategic leadership	.199	.099	.290	2.010	.046	.004	.394
1 government regulations	.040	.015	.375	2.596	.010	.010	.070
2 (Constant)	3.366	.054		62.684	.000	3.261	3.472
2 strategic leadership	-.760	.033	-1.112	-23.122	.000	-.825	-.696
2 government regulations	-.009	.004	-.084	-2.097	.037	-.017	-.001
2 Interaction Term	.236	.005	1.976	50.083	.000	.226	.245

a. Dependent Variable: insurance penetration

The coefficient results in Table 4 reveal that in Model 1, the coefficients for strategic leadership and government regulations provide valuable insights into their respective impacts on insurance penetration. The constant term is represented by a value of 2.458, which indicates the expected value of insurance penetration when both strategic leadership and government regulations are held at zero. This baseline level of 2.458 exists independently of the influences of the predictors, and the significance level (Sig.) is 0.000 ($p < 0.001$), indicating that the constant is highly statistically significant. The unstandardized coefficient for strategic leadership is 0.199, suggesting that for every one-unit increase in strategic leadership, insurance penetration is expected to increase by 0.199 units, holding government regulations constant. This positive relationship implies that enhancing strategic leadership practices within insurance companies can significantly contribute to improving insurance penetration rates. The standardized coefficient (Beta = 0.290) indicates a moderate effect size, reinforcing the notion that strategic leadership is an important predictor of insurance penetration. The t-value of 2.010 and a significance level (Sig.) of 0.046 confirm that this relationship is statistically significant at the 0.05 level,

providing robust evidence that strategic leadership positively influences insurance penetration.

Additionally, the unstandardized coefficient for government regulations is 0.040, indicating that for every one-unit increase in government regulations, insurance penetration is expected to increase by 0.040 units, holding strategic leadership constant. This finding suggests that effective government regulations also positively impact insurance penetration, albeit to a lesser extent than strategic leadership. The standardized coefficient (Beta = 0.375) reflects a relatively strong effect size, highlighting the importance of government regulations in influencing insurance penetration. The t-value of 2.596 and a significance level of 0.010 confirm that this relationship is statistically significant, reinforcing the role of government regulations in enhancing insurance penetration. Overall, Model 1 illustrates the significant contributions of both strategic leadership and government regulations to the prediction of insurance penetration, emphasizing their importance in the context of the insurance sector in Kenya.

Consequently, the results in table 4 reveals that Model 2 known as the Moderation Model, the constant term increases to 3.366, indicating a higher baseline level of insurance penetration when considering the interaction term along with the other predictors. The significance level for the constant is 0.000 ($p < 0.001$), which indicates that the constant is highly statistically significant. The unstandardized coefficient for strategic leadership becomes negative at -0.760, suggesting that when the interaction term is included, the direct effect of strategic leadership on insurance penetration is reversed. This indicates that the relationship between strategic leadership and insurance penetration is moderated by government regulations. The standardized coefficient (Beta = -1.112) reflects a strong negative effect size, suggesting that the impact of strategic leadership on insurance penetration is significantly influenced by the presence of government regulations. The t-value of -23.122 and a significance level of 0.000 confirm that this relationship is highly statistically significant, indicating a robust finding that strategic leadership is indeed a significant predictor.

The unstandardized coefficient for government regulations is -0.009, indicating a negligible negative effect on insurance penetration when the interaction term is included. The standardized coefficient (Beta = -0.084) suggests a weak effect size. The t-value of -2.097 and a significance level of 0.037 indicate that this relationship is statistically significant, albeit with a minimal impact on insurance penetration, confirming that government regulations are a statistically significant predictor. The inclusion of the interaction term yields a positive unstandardized coefficient of 0.236, indicating that the combined effect of strategic leadership and government regulations significantly enhances insurance penetration. The standardized coefficient (Beta = 1.976) indicates a strong positive effect size, suggesting that the interaction between these predictors plays a crucial role in influencing insurance penetration. The t-value of 50.083 and a significance level of

0.000 confirm that this relationship is highly statistically significant, reinforcing the conclusion that government regulations effectively moderate the relationship between strategic leadership and insurance penetration.

The moderating model can be summarized as:

(iii)...insurance penetration in Kenya = $2.458 + 0.199(\text{strategic leadership}) + 0.40 (\text{government regulations})$

(iv)...insurance penetration in Kenya = $3.366 - 0.76(\text{strategic leadership}) - 0.009 (\text{government regulations}) + 0.236 (\text{strategic leadership and government regulations})$

The researcher, therefore, Rejects the null hypothesis three ($H0_1$) and consequently concludes that government regulations has significant moderating role on the relationship between strategic leadership and insurance penetration in Kenya. The results from the model both strategic leadership and government regulations positively influence insurance penetration. Model coefficients highlight the critical role of government regulations in moderating the relationship between strategic leadership and insurance penetration in Kenya. While strategic leadership and government regulations independently contribute to performance, their combined effect (captured by the interaction term) is particularly significant.

These results are in agreement with study results by Mbole, Arasa and Mang'unyi (2021) who examined the moderating effect of government policies (GP) on the relationship between Corporate Social Responsibility (CSR) and Financial Performance (FP) of cement manufacturing companies in Kenya. The study established that government policies have a negative moderating effect ($\beta = -0.891$) on the relationship between corporate social responsibility initiatives and the financial performance of cement manufacturing companies in Kenya.

The study concluded that government policies have a negative effect on the relationship between Corporate Social Responsibility initiatives and Financial Performance. Based on the research findings, the study recommends that cement manufacturing companies should endeavor to understand different government policies that have implications on the relationships between corporate social responsibility and financial performance and align their operations accordingly. Additionally, the results are in concurrence with results by Gichuhi (2023), who explored how organizational environment moderates the effect of shared leadership on organizational resilience in Kenya's telecommunications industry. The association between shared leadership and organizational resilience was also moderated by the organizational environment which included the regulations and policies. The findings suggest that government regulations significantly moderate the relationship between strategic leadership and insurance penetration. This implies that effective regulatory frameworks can enhance the positive effects of strategic leadership on market performance. This highlights the importance of considering the moderating role of government regulations in enhancing the effectiveness of strategic leadership, providing

valuable insights for both insurance companies and policymakers aiming to improve market outcomes.

CONCLUSION AND RECOMMENDATIONS

In conclusion, the study reveals a significant positive relationship between strategic leadership, government regulations, and insurance penetration in Kenya. Both factors, strategic leadership and government regulations, individually contribute to increasing insurance penetration, and their combined interaction further strengthens this effect, demonstrating a substantial influence on the sector's growth. However, the analysis also indicates that government regulations moderate the impact of strategic leadership, altering its direct effect on insurance penetration. These findings highlight the importance of considering both leadership and regulatory frameworks together when developing strategies to enhance insurance market penetration.

The study recommends that policymakers and industry leaders in Kenya focus on strengthening both strategic leadership and government regulations to enhance insurance penetration. Efforts should be made to foster effective leadership practices that are responsive to market needs while simultaneously developing and enforcing regulatory frameworks that support industry growth. Given that government regulations moderate the impact of strategic leadership, a coordinated approach that aligns leadership initiatives with regulatory policies will be crucial. This integrated strategy will help create an enabling environment that maximizes the positive effects of leadership and regulation on expanding insurance coverage across the country.

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