



## GREEN GOVERNANCE: THE CATALYTIC ROLE OF POLICY AND INSTITUTIONAL ARRANGEMENTS IN AMPLIFYING SOCIO-ECOLOGICAL INNOVATION OF KENYA'S SMEs

Samar N. M. Al-Kindy<sup>1</sup>, Anne Ndirangu<sup>2\*</sup>

<sup>1, 2</sup> Strathmore University, Nairobi, Kenya

e-mails: <sup>1</sup>samar.alkindy@strathmore.edu, <sup>2</sup>andirangu@strathmore.edu

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### ABSTRACT

**Objective:** The study examined the influence of policy and institutional arrangements on socio-ecological value creation among small and medium-sized enterprises (SMEs) in Nairobi, Kenya. **Methods/Approach:** The study was grounded in a post-positivist research philosophy and adopted a mixed-methods design. The quantitative component employed a cross-sectional survey of 232 SMEs randomly selected from the 553 firms listed in the KPMG Top Mid-Sized Companies. The qualitative component comprised informant interviews with policy experts from the Kenya Industrial Estate and the Women Enterprise Fund. Structural Equation Modelling (SEM) using SPSS-AMOS was applied to examine the relationships among policy frameworks, institutional arrangements, and socio-ecological value creation. Statistical assumptions were assessed prior to analysis, including normality, multicollinearity ( $VIF < 5$ ), and heteroscedasticity using the Breusch-Pagan test, thereby confirming the robustness of the model estimates. **Results:** The descriptive results indicated high levels of compliance with formal legal requirements ( $M = 6.06$ ), regulatory policies ( $M = 5.90$ ), and cognitive institutional practices ( $M = 5.83$ ), suggesting that SMEs align their operational activities with prevailing legal and institutional expectations. Further, the Structural Equation Modelling (SEM) results demonstrated that policy and institutional exert a statistically significant positive influence on socio-ecological value creation among SMEs in Kenya ( $\beta = .47$ ,  $t = 7.63$ ,  $p < .05$ ). The model's coefficient of determination ( $R^2 = .47$ ) indicates that policy and institutional frameworks explain 47% of the variance in socio-ecological value creation. Model fit indices indicated that the SEM model exhibited acceptable fit ( $CFI = 0.899$ ,  $RMSEA = 0.0819$ ,  $X^2/df = 1.96$ ), supporting the robustness of the estimated relationships. Insights from key informant interviews further corroborated the quantitative findings, highlighting that financial inclusion policies, infrastructure support, and government-backed initiatives play a critical role in enhancing the sustainability practices of SMEs. **Conclusions:** This study provides empirical support for Institutional Theory by demonstrating its relevance in framing policy and institutional arrangements, including formal laws, regulatory policies, and cognitive practices. The significance of the hypothesised relationship between policy and institutional arrangements and SMEs' socio-ecological value creation further validates the theory. Consequently, the findings offer a meaningful contribution to theory development in the fields of strategic management and organisational studies, guiding scholars in designing strategies to mitigate value-reducing institutional constraints. For policymakers, including the Micro and Small Enterprises Authority (MSEA), the Ministry of Trade, Industrialisation and Cooperatives, and the Ministry of ICT, Innovation and Youth Affairs, the demonstrated positive and significant relationship underscores the importance of prioritising value-enhancing laws and policies to strengthen the SME sector.

**Keywords:** Socio-Ecological Value Creation, Policy and Institutional Arrangements, Structural Equation Modelling (SEM)

**JEL classification:** L26, Q01, Q56, M14

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\* Corresponding author, Samar N. M. Al-Kindy – [samar.alkindy@strathmore.edu](mailto:samar.alkindy@strathmore.edu)



## INTRODUCTION

Corporate sustainability has become a key focus in global business discussions, reflecting growing pressure on organisations to pursue long-term objectives while responsibly addressing environmental and social concerns (Kennedy, Whiteman, & William, 2021). However, the actual impact of corporate policy and institutional arrangement practices on socio-ecological value creation remains complex and insufficient since biodiversity loss and environmental degradation persist (Chege, 2019). The problem is especially significant with regard to Small and Medium Enterprises (SMEs) in developing economies such as Kenya, whereby policy and institutional arrangements still have a debatable relationship to socio-ecological value creation (Hockerts, 2023).

Kenyan SMEs operate within a complex and often contested policy landscape that significantly shapes—and, in many cases, constrains—their performance. These frameworks offer access to financial, social, and technological resources that support both sustainable employment and environmentally responsible practices (Dyke & Machanda, 2021). The SMEs are regulated and coordinated by the National Environment Management Authority (NEMA), Act of 1999 (Wachira & Wangombe, 2019). The National Environmental Council was established through the Act to serve as a platform for making decisions regarding environmental practices and priorities of managing the environment. The necessity for a multi-sectoral approach to environmental coordination becomes evident when examining the government’s policy and institutional framework, which encompasses the Ministry of Agriculture, Ministry of Trade, Ministry of Water and Sanitation, Ministry of Public Health, Ministry of Environment and Conservation, and Ministry of Devolution (Biesbroek & Falling, 2019). The Youth Fund, Women Enterprise Fund, Hustler Fund, and Kenya Industrial Estates provide various training programs aimed at supporting the growth of small and medium-sized enterprises (SMEs). Additionally, the Micro and Small Enterprise Authority (MSEA) and initiatives such as Access to Government Procurement Opportunities (AGPO) play a critical role in promoting SME development. Despite these efforts, empirical studies have identified persistent challenges, including high failure rates among SMEs (International Labour Organisation, 2019), limited contributions to environmental sustainability (Khana, 2020), and difficulties in generating sustainable employment (Hilson & Hilson, Traore, 2024). Moreover, research suggests that SMEs are responsible for approximately 70% of environmental pollution, calling into question their overall socio-ecological impact (Bakashaba, Bindeeba, & Tukamushaba, 2026). Furthermore, the brief operational lifespan of these enterprises raises concerns regarding the effectiveness of policy interventions (Roach, 2012).

Despite extensive research on the link between institutional policies and corporate sustainability, empirical evidence on how policy and institutional arrangements influence socio-ecological value creation among SMEs in Sub-Saharan Africa remains limited (Baron & Mogotsi, 2025). This study contributes by exploring how policy and institutional frameworks affect the creation of socio-ecological value among SMEs in Nairobi County. It seeks to demonstrate the applicability of Institutional Theory within the African SME context while addressing the practical challenge that many SMEs face in converting policy incentives into tangible socio-



ecological outcomes. The study further examines which institutional mechanisms are most effective in shaping SME policy and fostering socio-ecological value creation, drawing on insights derived from Structural Equation Modelling (SEM).

## LITERATURE REVIEW

### *SMEs and Institutional Theory*

Abobakr (2022) argues that institutions play a pivotal role in shaping organisational structure and behaviour. Organisations do not operate in isolation, rather, they are embedded within a broader socio-cultural environment characterised by shared beliefs and values that influence the formation, evolution, and direction of organisational practices. Ametefe (2025) contends that organisations need to attain legitimacy and ensure survival. This requirement stems from the multifaceted nature of institutions as social structures that encompass symbolic practices, material resources, and normative elements: consequently, organisations are expected to conform to established environmental performance standards to be regarded as legitimate (Qiao, 2020).

Gao (2019) identifies three core institutional pressures that shape organisational performance: cognitive, regulative, and normative. Cognitive pressures involve adherence to widely accepted standards in order to meet perceived ethical obligations (Gao, 2019). Regulative pressures refer to organisations' compliance with formal rules, policies, and legal requirements to satisfy environmental performance standards (Gao, 2019). Normative pressures arise from expectations and guidelines imposed by external stakeholders such as non-governmental organisations, suppliers, and industry competitors. Most organisations will likely conform to the external and institutional environments within their ecosystems by adopting the relevant standards and accepted behavioural norms (Qiao, 2020). Similarly, Haack (2021) argues that organisations seek legitimacy by engaging in practices that are widely regarded as desirable and appropriate within socially constructed frameworks. Drawing on institutional theory, this study examines how policy and institutional arrangements influence small and medium-sized enterprises (SMEs) in Nairobi County in fostering socio-ecological value creation, particularly by emphasising the necessity of compliance with existing policy and institutional structures.

Firstly, institutional theory highlights the importance of regulatory frameworks and government policies in influencing entrepreneurial behaviour. SMEs operate within a range of environmental, labour, and business regulations that directly influence their social and environmental responsibility practices (Maseno, Ndiga, & Kitonga, 2025). Adherence to these regulatory requirements not only ensures legal compliance but also signals legitimacy and ethical responsibility to key stakeholders. Secondly, institutional pressures and normative expectations play a critical role in shaping SMEs' adoption of sustainable practices (Bett, Nakiganda, & Okello, 2025). Social norms, industry standards, and stakeholder demands can encourage SMEs to embed socio-ecological considerations within their business models. Consequently, institutional theory emphasises the central role of institutions in fostering socio-ecological values within entrepreneurial ecosystems.



Furthermore, collaborative networks and institutional support mechanisms provide SMEs with access to resources, knowledge, and incentives that promote humane entrepreneurship and advance sustainable development goals (Dixit, Jarrar, & Salloum, 2025). This study, therefore, examines the interactions among policy frameworks, institutional arrangements, and entrepreneurial behaviour among SMEs in Nairobi County.

Nkurunziza (2025) argues that businesses can concurrently generate socio-ecological value and financial returns by prioritising the social well-being of their immediate communities and addressing challenges within their local environments. Social value creation requires the interaction of multiple organisational dimensions with external contextual factors in order to enhance overall performance. Similarly, Dembek (2016) contends that effective socio-ecological value creation depends on a clear understanding of a firm's internal mechanisms, business models, and key organisational attributes. Moreover, entrepreneurs with a humane orientation play a pivotal role in recognising opportunities that emerge from environmental challenges within communities (Renteria, 2025). In contrast to conventional entrepreneurs, humane entrepreneurs place greater emphasis on social and ecological considerations while simultaneously enhancing financial performance and fulfilling shareholder expectations (Kim, 2018). Compassionate entrepreneurship therefore provides a vital impetus for visionary leadership that prioritises ethical values, responsible resources stewardship, and socio-ecological value creation. In this regard, humane entrepreneurship is characterised by a strong commitment to employee equity, empowerment, and personal development (Lasakova, 2025).

The resource-based view emphasises that business entities often depend on external resources to access sources of value beyond the firm, particularly those derived from embedded networks (McDougall, 2019). Such resources include locally embedded knowledge and capabilities related to environmental challenges, which are critical for value creation (Adomako, 2023). Through these embedded networks, firms can engage in co-creation processes in which diverse actors integrate their capabilities and resources to address immediate needs while developing a deeper understanding of market and institutional contexts (Qalati, 2024). Notably, access to these resources would be largely unattainable without network participation, as they typically lie beyond the direct control of individual enterprises (McDougall, 2019). Furthermore, the established collaborative networks enable the mobilisation of diverse resources and the coordination of multiple stakeholders, thereby fostering systemic change that helps overcome market and institutional barriers (Jager & London, 2019). In this context, the size of an SME enhances its flexibility to respond swiftly to emerging changes and facilitates efficient communication with relevant stakeholders, which is crucial for the creation of socio-ecological value (Rosenstock, 2020).

### *SMEs and Sustainability*

Small and medium-sized enterprises (SMEs) in Kenya operate within a challenging regulatory environment that constrains their ability to pursue efficient and sustainable business practices (Kato, 2024). Regulatory requirements associated with the Single Business Permit framework, together with the digitisation of services via the E-Citizen platform, have been criticised for exacerbating bureaucratic inefficiencies and encouraging corrupt practices. In addition to these challenges, SMEs face a heavy tax burden imposed by the county



government. Collectively, these regulatory constraints contribute significantly to the high rates of business failure among Kenyan SMEs (Abbey & Adu-Danso, 2022).

Access to finance and other credit support mechanisms, such as affordable loans, significantly influence the sustainability of SMEs in Kenya. Financial policies implemented by the Central Bank of Kenya (CBK), commercial banks, SACCOs, and other microfinance institutions are often more restrictive forms, resulting in high borrowing costs that limit their capacity to adopt sustainable practices (Obokoh & Wanzala, 2025). Additionally, SMEs face stringent collateral requirements, which further limit their access to financing. This is particularly evident in SMEs' efforts to remain compliant and relevant within the socio-ecological domain. While initiatives such as the SME Credit Guarantee Scheme, the Youth Enterprise Fund, and the Uwezo Fund have partially addressed these challenges, government interventions remain insufficient to fully mitigate the financial constraints facing Kenyan SMEs (Nkurunziza, 2025).

Inadequate training and capacity-building initiatives constrain the ability of Kenyan SMEs to fully realise their potential in sustaining operations and remaining competitive in the provision of goods and services. Such capacity-building interventions are particularly critical given the dynamic nature of the country's financial environment, which necessitates continuous updates on emerging best practices at both national and global levels (Dixit, Jarrar, & Salloum, 2025). Ideally, these support services should be delivered through institutions such as the Kenya Industrial Estates, the Micro and Small Enterprises Authority (MSEA), and the Kenya Private Sector Alliance (KEPSA), among other relevant public agencies. Key areas of capacity development include financial management, and digital literacy.

Inadequate infrastructural support remains a significant challenge to the sustainability prospects of SMEs in Kenya. In this context, business infrastructure encompasses digital connectivity, water and sanitation services, transport network expansion, and energy supply, particularly rural electrification and the extension of fibre-optic networks to enhance communication efficiency (Kato, 2024). Reliable infrastructure is critical in ensuring that cost-reduction mechanisms within SMEs' production and operational processes are consistently maintained. For instance, ICT infrastructure has enabled SMEs to adopt e-commerce platforms, mobile money systems, and digital government services, thereby strengthening linkages with suppliers and customers. Moreover, improved infrastructural support has contributed to reducing operational constraints and fostering innovation among Kenyan SMEs helped reduce operational constraints and foster innovation among Kenyan SMEs (Kato, 2024).

Finally, market-related challenges and unfair competitive practices significantly affect the sustainability of SME in Kenya. Market access policies, in particular, influence SMEs' ability to compete with established firms in procurement processes, upgrade their operational standards, and participate effectively in international trade (Matsieli & Mutula, 2025). Nevertheless, the Public Procurement and Asset Disposal Act (PPADA) currently reserves 30% of government tenders for women, youth, and persons with disabilities. Additionally, the Competition Authority of Kenya (CAK) safeguards SMEs against unfair competitive practices, while the Kenya Export Promotion and Branding Agency (KEPROBA) facilitates their participation in regional and



international markets (Kato & Manchidi, 2025). Robust and efficient government support is essential to help SMEs withstand challenges arising in a market environment dominated by larger competitors.

The various initiatives undertaken by successive Kenyan governments to address challenges within the SME sector are consistent with earlier policy interventions, particularly those articulated in key sessional papers. Sessional Paper No.10 of 1965 highlighted the significance of indigenous entrepreneurship in national development, while Sessional Paper No.1 of 1986 formally acknowledged the contribution of the informal sector to economic growth (Owalo, 2025). Building on these efforts, Sessional Paper No.2 of 1992 explicitly shifted policy focus towards the Jua Kali sector, with the objective of strengthening its role in national economic development. The Sessional Paper on Development of Micro and Small Enterprises for Employment Creation and Poverty Reduction (2001) reviewed and superseded the earlier policy frameworks. Its primary objective was to establish a linkage between access to credit and the growth of micro-enterprises, thereby promoting a more level economic playing field. Subsequently, Sessional Paper No.2 of 2005 on the Development of Micro and Small Enterprises for Wealth and Employment Creation for Poverty Reduction sought to position SMEs as central to Kenya's industrialisation agenda, while also emphasising the role of technology in driving economic development (Owalo, 2025). More recently, Sessional Paper No.5 of 2020, the Kenya Micro and Small Enterprise Policy, aimed to foster an enabling environment that allows MSEs to contribute optimally to wealth creation, employment generation, and overall economic development.

### *Theory and Hypothesis Development*

The influence of policy and institutional arrangements on SMEs is closely linked to the extent of their structural embeddedness within the broader economic system. Government policies shape the overall business environment by providing regulatory and normative guidelines that influence SME behaviour (Porter, 1980). Given the shared norms and expectations embedded within these institutional structures, SMEs may face constraints in resisting or adapting to policy shifts, thereby amplifying the mediated effects of such policies on socio-ecological value creation (Pacheco, 2014).

The fact that higher levels of structural embeddedness exert an indirect influence on policy, institutional arrangements, and socio-ecological value creation through humane entrepreneurship is both significant and nuanced (Maseno, Kitonga, & Ndiga, 2025). Proponents argue that SMEs deeply embedded in local business ecosystems are more responsive to external influences, particularly policy directives. This heightened responsiveness arises from their interconnectedness with multiple stakeholders and institutions, which increases their propensity to adopt and support initiatives and projects aligned with broader developmental objectives (Hillman & Hitt, 1999).

Highly embedded SMEs may possess sufficient social capital and organisational flexibility to resist reforms perceived as unfavourable, while selectively adapting policy directives to align with their established operational practices (Kim & Ko, 2025). In less competitive market environments, SMEs may also exhibit reduced incentives to comply with policy-driven socio-ecological initiatives, thereby weakening the mediated effects of such policies. Both perspectives are supported by empirical evidence in the existing scholarly



literature. Empirical evidence suggests that small businesses operating within closely knit business communities are more responsive to policy changes, often reacting swiftly to new legislation or regulatory stimuli due to peer influence and shared normative frameworks (Hillman & Hitt, 1999). However, the implementation of such policies by structurally embedded SMEs may be constrained when these changes are perceived as threatening to their competitiveness, indicating that the indirect effects of policy interventions are not always linear or uniform (Borazon, Lui, & Okumus, 2022). Given these insights, this study hypothesises that institutional arrangements positively impact socio-ecological value creation:

H<sub>0</sub>: Policy and institutional arrangements do not positively influence socio-ecological value creation.

## METHODOLOGY

### *Research Design and Philosophy*

The study is grounded in a pragmatic research philosophy, employing quantitative methods complemented by contextual interpretation to examine complex organisational phenomena (Foster, 2023). Pragmatism is particularly suited to this inquiry as it enables an assessment of how policy and institutional arrangements influence socio-ecological value creation among SMEs, while remaining attentive to the contextual realities characterising Nairobi County.

The study adopted an explanatory, cross-sectional research design to examine hypothesised relationships between policy-related institutional factors and socio-ecological value creation outcomes at a single point in time (Alaqeel, 2024). A predominantly quantitative approach was employed, supplemented by limited qualitative insights to provide contextual grounding for the findings. This design facilitated robust theory testing while enhancing the contextual relevance of the results.

### *Population and Sampling*

#### **Target Population**

The study's target population comprised formally registered SMEs operating within Kenya. SMEs were chosen due to their considerable exposure to policy and institutional frameworks and their expected role in contributing to socio-ecological value creation, in addition to their economic performance, as emphasised by government policy.

#### **Sampling Frame and Selection**

The "KPMG Top 100 SMEs List" was employed as the study's sampling frame, as firms included in this list operate within formal regulatory and institutional frameworks, making them suitable for examining the influence of policy on socio-ecological value creation. These SMEs possess adequate organisational capacity to interpret, respond to, and implement policy directives effectively (Ali, 2026). Their high level of formalisation, visibility, and accountability further increases the likelihood of intentional socio-ecological initiatives. Consequently, a purposive sampling strategy was adopted to ensure the inclusion of firms that regard policy and institutional arrangements as integral to their operations (Barrios, & Guarte, 2007).



## **Sample Size and Respondents**

The data was collected from owners, chief executive officers, and senior managers who are directly involved with policy compliance and strategic decision-making. The final sample size met the established minimum requirements for Structural Equation Modelling (SEM), and this ensured adequate statistical power for estimating relationships among the study constructs (Uttley, 2019).

## **Measurement of Constructs**

All key variables were operationalised as latent constructs and measured using multi-item scales (Wu & MengXiang, 2024). The study examined two broad categories of constructs: policy and institutional arrangements, and socio-ecological value creation. Policy and institutional arrangements encompassed regulatory frameworks, enforcement mechanisms, institutional support, and policy coherence within the SME sector. Socio-ecological value creation, in turn, captured social value outcomes, including environmental stewardship and resource efficiency. Measurement items were adapted from established literature on institutional theory, public policy and sustainability with minor modifications to reflect the Kenyan SME context (Liu & Ma, 2023). All items were assessed using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The operationalisation of constructs emphasised conceptual clarity and consistency with the study's analytical framework, thereby supporting construct validity.

## **Data Collection Procedures**

Primary data was collected through a structured questionnaire administered to SMEs drawn from the KPMG Top 100 sampling frame. The surveys were distributed electronically, with follow-up communications conducted to improve response rates. Participation was voluntary, and respondents were assured of anonymity and confidentiality (McBeath & Hopkins, 2024). In addition, qualitative data were gathered using open-ended questions, enabling respondents to provide in-depth insights into how policy and institutional arrangements shape their socio-ecological practices. These insights were interpreted to elucidate underlying mechanisms and contextual factors that informed the observed statistical relationships. Ethical standards were upheld throughout the study, with informed consent obtained from all participants prior to data collection. Respondents were assured that the data would be used solely for research purposes, and no identifying information was disclosed during data analysis or reporting.

## **Data Analysis Procedures**

Data analysis followed a systematic, multi-stage procedure. The dataset was initially screened for missing values, outliers, and normality (Douglas, 2024). Descriptive statistics were subsequently computed to summarise firm characteristics and respondent profiles. Structural Equation Modelling (SEM) was adopted as the primary analytical technique due to its suitability for examining complex relationships among latent constructs. SEM was particularly appropriate for this study given the multidimensional and latent nature of policy and institutional arrangements, as well as the interrelated social and environmental dimensions of socio-ecological value creation. Structural Equation Modelling (SEM) enabled the simultaneous estimation of both measurement and structural models while explicitly accounting for measurement error, thereby enhancing the



accuracy of the study. The measurement model was assessed prior to the structural analysis, with factor loadings, internal consistency, and construct validity examined to confirm that the observed indicators adequately captured the underlying latent constructs. Once the measurement model met acceptable thresholds, the structural model was estimated to test the hypothesised relationships between policy and institutional arrangements and socio-ecological value creation. Path coefficients, levels of statistical significance, and explanatory power ( $R^2$  values) were analysed to assess the strength and direction of the relationships.

### **Validity and Reliability Tests**

The reliability of internal consistency was evaluated using Cronbach's alpha and composite reliability (CR). All constructs exceeded the recommended threshold values, indicating satisfactory reliability (Dahlstrom, Karlsson, & Ramesh, 2025). Convergent validity was assessed through Average Variance Extracted (AVE), which met the accepted criteria, demonstrating that the constructs accounted for a substantial proportion of the variance in their indicators. Discriminant validity was examined using the Fornell-Larcker criterion and the Heterotrait-Monotrait (HTMT) ratio, with results confirming that the constructs were empirically distinct. Model fit was evaluated using standard goodness-of-fit indices, including CFI, TLI, and RMSEA, all of which indicated an acceptable fit between the proposed model and the observed data.

## **RESULTS**

### *Test of Assumptions and Factor Analysis*

The study assessed key statistical assumptions, including normality, heteroscedasticity, and multicollinearity to ensure the suitability of the data for subsequent analyses. Normality was established, as the skewness and kurtosis values validate data assumptions. Normality was confirmed as the skewness and kurtosis values fell within the acceptable range of -1 to +1. Additionally, Q-Q plots indicated that the data approximated a normal distribution. Heteroscedasticity was examined using the Breusch-Pagan test, which produced a low chi-square value, suggesting the absence of heteroscedasticity and confirming homoscedasticity. Multicollinearity was evaluated through the Variance Inflation Factor (VIF) and tolerance statistics; all VIF values were below the threshold of 5, indicating that multicollinearity was not a concern.

Collectively, these results confirmed that the data met the required assumptions for further statistical analysis. Furthermore, an exploratory factor analysis (EFA) was conducted using Principal Component Analysis (PCA). Items with communalities exceeding 0.50 were retained, ensuring that only statistically meaningful indicators contributing to the underlying factor structure were included in the final model. All items measuring formal laws were retained, indicating their satisfactory contribution to the construct. In contrast, for regulatory laws, only RL2, RL3, RL4, and RL7 were retained, while RL1, RL5, and RL6 were excluded due to low communalities (5.90). However, comparatively lower mean scores were observed for aspects related to record-keeping CP7. The refinement process ensured that the retained indicators demonstrated adequate shared variance and reliably represented their respective constructs, thereby strengthening the measurement model for subsequent analysis.



### *Descriptive Findings*

Policy and industrial arrangements were measured using a seven-point Likert scale. The findings indicated a high level of organisational compliance with formal legal requirements and cultural integration practices ( $M = 5.60$ ,  $SD = 1.10$ ,  $n = 208$ ). Items relating to formal laws demonstrated strong agreement, particularly with respect to compliance with tax audit requirements ( $M = 6.06$ ).

Similarly, regulatory laws reflected substantial adherence ( $M = 5.66-5.90$ ). However, comparatively lower mean scores were observed for aspects related to record-keeping and environmental standards, suggesting moderate variability in compliance across specific regulatory dimensions. Cognitive practices were also largely aligned with prevailing industry norms ( $M = 5.25-6.13$ ), with notable emphasis on cultural inclusivity within organisational operations.

Overall, the results suggested that respondents perceived SMEs as demonstrating robust adherence to legal, regulatory, and cultural frameworks, as presented in Table 1.

### *Hypothesis Testing*

The study sought to evaluate the role of policy and institutional arrangements in fostering socio-ecological value creation among small and medium-sized enterprises (SMEs) in Nairobi, Kenya. The corresponding null hypothesis stated that policy and institutional arrangements do not positively influence socio-ecological value creation ( $H_{01}$ ).

The structural model estimating this relationship demonstrated an acceptable overall fit. As presented in Table 2, the chi-square ( $\chi^2$ ) statistic was 1,036.84 with 946 degrees of freedom (df), and was statistically significant ( $p < .001$ ), a result that is common in large samples due to the sensitivity of the chi-square test to sample size. The Comparative Fit Index (CFI) of .899 approached the recommended threshold of .90, indicating satisfactory explanatory capacity. The Root Mean Square Error of Approximation (RMSEA) was .082, which is close to the commonly accepted cut-off of .08 and suggests a moderate but acceptable fit. Furthermore, the  $\chi^2$  range fell within the acceptable limit of ( $\leq 3$ ), reflecting that the model was adequately specified and well-balanced.

As shown in Table 3, the regression results revealed a positive and statistically significant relationship between policy and institutional arrangements and socio-ecological value creation ( $\beta = 0.47$ ,  $t = 7.626$ ,  $p < .05$ ). Accordingly, the null hypothesis was rejected, indicating that policy and institutional arrangements exert a significant influence on SMEs' socio-ecological value creation in Nairobi. The model explained 47% of the variance in socio-ecological value creation ( $R^2 = .47$ ).



**Table 1.** Descriptive Findings of Policy and Institutional Arrangements

	SD (%)	D (%)	SD (%)	N (%)	SA (%)	A (%)	SVA (%)	Mean	Std. Dev.
FL1	1.4%	2.9%	8.2%	1.0%	13.5%	51.9%	21.2%	5.63	1.346
FL2	0.5%	5.8%	4.8%	10.6%	29.3%	48.1%	1.0%	5.11	1.187
FL3	0.5%	3.4%	7.7%	1.0%	55.8%	12.0%	19.7%	5.23	1.249
FL4	0.5%	4.3%	3.8%	1.0%	1.9%	67.3%	21.2%	5.86	1.190
FL5	1.4%	3.4%	3.4%	1.0%	1.9%	48.6%	40.4%	6.06	1.292
FL6	0	5.3%	3.4%	0.5%	24.5%	46.6%	19.7%	5.63	1.217
FL7	0.5%	1.4%	6.3%	1.4%	17.8%	55.8%	16.8%	5.69	1.108
RL1	0	3.4%	0	0.5%	28.8%	53.4%	13.9%	5.71	0.951
RL2	0	0.5%	5.3%	0	15.4%	55.8%	23.1%	5.90	0.965
RL3	0	3.4%	2.9%	0	20.2%	55.8%	17.8%	5.75	1.060
RL4	0	3.8%	2.4%	0	26.9%	51.0%	15.9%	5.66	1.073
RL5	0.5%	3.8%	7.2%	23.6%	29.3%	33.2%	2.4%	4.87	1.168
RL6	2.4%	1.0%	18.8%	16.3%	22.1%	31.3%	8.2%	4.81	1.414
RL7	0	3.4%	2.4%	0.5%	25.0%	48.6%	20.2%	5.74	1.078
CP1	0	0	5.8%	0.5%	17.3%	58.2%	18.3%	5.83	0.932
CP2	0	3.4%	0.5%	23.6%	28.4%	29.3%	14.9%	5.25	1.181
CP3	2.4%	0	2.9%	1.0%	2.9%	52.4%	38.5%	6.13	1.141
CP4	0	2.4%	3.4%	0.5%	24.5%	48.6%	20.7%	5.75	1.051
CP5	0	0	6.3%	0	17.3%	58.2%	18.3%	5.82	0.944
CP6	0	3.8%	0	0	29.3%	52.4%	14.4%	5.70	0.983
CP7	0	2.4%	1.0%	0.5%	36.5%	42.8%	16.8%	5.67	0.958
<b>Average</b>								<b>5.61</b>	<b>1.12</b>

**Note.** Source: Own calculations



**Table 2.** Model Fit Analysis

Model-Fit Statistics	Chi-Square ( $\chi^2$ )	F	CFI	RMSEA	P	$\chi^2 / DF$
Tau-Equivalent	1036.8375	46	0.899	0.0819	0.000	1.96

Source: Own calculations

Qualitative insights from the Kenya Industrial Estates (KIE) underscored the role of affordable industrial spaces and infrastructure in enabling SMEs to adopt sustainable practices. The Chief Executive Officer of the Uwezo Fund highlighted the importance of financial inclusion policies in supporting youth and women entrepreneurs to integrate sustainability into their ventures. Similarly, the Chief Executive Officer of the Hustler Fund emphasised that access to affordable credit fosters social responsibility and environmental consciousness among entrepreneurs. Collectively, these findings demonstrate that structured policy frameworks and institutional support mechanisms play a pivotal role in promoting sustainability, environmental responsibility, and entrepreneurial orientation among SMEs.

**Table 3.** Regression Analysis for the Relationship between Policy and Institutional Arrangements and Socio-ecological Value Creation

Path	B	Beta	S.E.	T. Value	P
Policy and Institutional Socio-ecological Value Creation ←	0.468	0.47	0.61	7.626	0.0

Source: Own calculations

## DISCUSSION

The study examined the effect of policy and institutional arrangements on the socio-ecological value creation of SMEs in Nairobi, Kenya. Descriptive analysis indicated that respondents expressed a high level of agreement with statements relating to formal legal frameworks, regulatory mechanisms, and cognitive practices.

The results of the hypothesis testing further revealed that policy and institutional arrangements have a positive and statistically significant relationship, which sought to determine the effect of policy and institutional arrangements on the socio-ecological value creation of SMEs in Nairobi, Kenya ( $\beta = 0.47$ ). This finding suggests that a one-unit increase in policy and institutional arrangements is associated with 0.47 unit increase in socio-ecological value creation, thereby indicating a meaningful and positive effect. The correlation coefficient ( $r = .78$ ), indicates that policy and institutional arrangements account approximately 78% of the variation in socio-ecological value creation among SMEs in Nairobi, Kenya. The t-statistic ( $t = 7.626, p < 0.5$ ) demonstrates that the null hypothesis ( $H_{01}$ ) is rejected, supporting the



alternative hypothesis that a significant relationship exists between policy and institutional arrangements and socio-ecological value creation in SMEs within Nairobi, Kenya.

The findings are consistent with the literature of Mair and Marti (2023), who highlight that institutional arrangements comprise structures, norms, and frameworks that guide societal behaviour, which is essential for promoting stability and sustainability. Similarly, Becker (2020) delineates the normative, cognitive, and regulative dimensions of institutional arrangements, each exerting a distinct influence on organisational and societal practices. The regulative dimension, which focuses on adherence to laws and policies, aligns with the present findings, indicating that a robust regulatory framework encourages SMEs to implement sustainable practices. Furthermore, Chirwa (2021) advocates for integrated institutional approaches that emphasise ecological regeneration and social innovation, reflecting the study's conclusion regarding the transformative influence of policy frameworks. Chirwa (2021) also connects ecological contributions to human well-being. In addition, Djukic-Min et.al. (2025) show that inclusive institutional policies strengthen governance and participation, thereby promoting ecological and social synergies.

## **STUDY IMPLICATIONS**

### *Theoretical Implications*

The study extends Institutional Theory by demonstrating that policy frameworks and institutional arrangements function as critical enablers of socio-ecological value creation when they are strategically internalised by SMEs (Becker, 2020). Rather than viewing institutions merely as external constraints, the findings suggest that SMEs actively leverage policy structures to generate sustainability-oriented outcomes.

In addition, the results reinforce Dynamic Capabilities Theory by showing that firms depend on policy responsiveness to sense institutional signals and reconfigure their sustainability practices accordingly (Haack, 2021). This highlights the adaptive mechanisms through which SMEs align organisational capabilities with evolving regulatory and normative environments.

Furthermore, the study advances sustainability scholarship with emerging economy contexts by providing firm-level empirical evidence that institutional quality and policy coherence significantly influence socio-ecological value outcomes (Volberda, 2021). Collectively, these insights contribute to a more nuanced understanding of how institutional dynamics shape sustainable value creation among SMEs.

### *Managerial Implications*

The study's findings suggest that managers should reconceptualise regulatory compliance as a strategic resource that supports socio-ecological value creation within SMEs, rather than viewing it solely as a mandatory obligation. By aligning policy requirements with internal socio-ecological objectives, firms can enhance organisational legitimacy while strengthening operational capabilities.



Managers are further encouraged to strategically utilise government funding and institutional support mechanisms to advance clearly defined socio-ecological goals. In this regard, SMEs should invest in institutional learning capabilities, including staff training and capacity-building initiatives, to effectively interpret regulatory expectations and translate them into tangible socio-ecological value outcomes.

### *Policy Implications*

The study indicates that policymakers should prioritise the creation of enabling institutional conditions-particularly infrastructure development and improved access to affordable finance-to strengthen SME-led socio-ecological value creation. Supportive structural environments enhance firms' capacity to integrate sustainability objectives into their core operations.

Furthermore, streamlining regulatory compliance through harmonised requirements and the adoption of digital platforms can reduce administrative burdens and improve overall policy effectiveness. The findings also underscore the importance of sector-specific policy incentives, recognising that SMEs operate within diverse industry contexts that require tailored regulatory and institutional support mechanisms.

## **CONCLUSION**

The paper examined the influence of policy and institutional frameworks on socio-ecological value creation among SMEs in Nairobi, Kenya. Specifically, it analysed how regulatory enforcement, stakeholder expectations, and cognitive conformity shape sustainability practices within SMEs. The findings reveal that policy and institutional arrangements exert a significant influence on socio-ecological value creation. SMEs demonstrated substantial levels of formal regulatory compliance, underscoring the relevance of institutional pressures in shaping organisational conduct. The study further establishes that while institutional frameworks play a pivotal role in driving sustainable outcomes, their effectiveness depends on consistent implementation and equitable resource allocation.

Strengthening institutional policies, fostering stakeholder-oriented approaches, and enhancing financial incentives are therefore essential to balancing profitability with environmental and social sustainability. Such measures can support SMEs in generating sustained socio-ecological value over the long term.

## **LIMITATIONS**

This study is subject to several limitations. Methodologically, the cross-sectional research design constrained the ability to capture temporal changes, thereby limiting causal inferences. The sample comprised 232 SMEs in Kenya and excluded informal enterprises, which may restrict the generalizability of the findings beyond the formal SME sector.



Furthermore, the reliance on self-reported data introduces the potential for social desirability bias, which may have influenced the accuracy of the responses. These limitations should be considered when interpreting the results and their broader applicability. Although key informant interviews provided valuable contextual insights, the inclusion of a broader range of stakeholders would yield a more comprehensive understanding of the phenomenon under investigation. Accordingly, future research should adopt longitudinal designs to capture temporal dynamics, expand the scope of SME coverage to enhance generalizability, and incorporate objective performance indicators to strengthen measurement reliability. Such approaches would provide deeper insights into the effectiveness of policy and institutional frameworks in shaping socio-ecological value creation.

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The data presented in this study are available on request from the corresponding author.

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### About the authors



#### **Samar N. M. AL-KINDY**

PhD candidate at Strathmore University, Nairobi, Kenya. She's a serial entrepreneur & a strategic management consultant.

**Research interests:** humane entrepreneurship, socio-ecological value creation, green governance & disruptive innovation.

**ORCID ID:** 0009-0008-0036-1232



#### **Dr. Anne NDIRANGU**

Lecturer at Strathmore University, Nairobi, Kenya.

**Research interests:** global socio-economic empowerment for women & youth, organisational development, innovation, leadership, entrepreneurship & academic research.

**ORCID ID:** 0000-0003-3539-6482

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