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The Influence of Government Policies and Regulations on Green Logistics Practices in Public Institutions in Tanzania

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Abstract

Green logistics promotes environmental sustainability by integrating environmental considerations into public institutions' transportation, procurement, warehousing, and distribution—activities that consume energy, degrade the environment, and generate waste. This study examined the influence of government policies and regulations on green logistics practices in public institutions in Tanzania, focusing on Tanzania Telecommunications Corporation Limited (TTCL) and Tanzania Posts Corporation (TPC). Guided by Institutional Theory, the study conceptualized government policies and regulations as external pressures that can shape organizational environmental practices. A convergent parallel mixed-methods research design was employed. The target population comprised 120 employees, and a sample of 92 respondents was determined using Yamane's procedure. Data were collected through questionnaires and interviews with eight purposively selected key informants. Quantitative data were analyzed using descriptive and inferential statistics, while qualitative data were thematically analyzed. The findings showed a positive and statistically significant relationship between government policies and regulations and green logistics practices ($r = 0.304$, $p = 0.005$). Regression analysis confirmed a significant positive independent contribution of government policies and regulations ($\beta = 0.201$, $p = 0.020$), with the overall model explaining 32.0% of the variance in green logistics practices ($R^2 = 0.320$). Qualitative findings reinforced these results, highlighting public procurement compliance, environmental requirements, waste management, and cleaner transport technologies as key areas of regulatory influence. The study concludes that government policies and regulations are important institutional drivers of green logistics practices in Tanzanian public communication institutions. It recommends stronger integration of environmental requirements into public procurement and logistics procedures, improved regulatory efficiency, and enhanced monitoring of compliance.

Keywords: **Government policies, regulations, green logistics, public institutions, Tanzania**

1.0 INTRODUCTION

Environmental sustainability has become a growing concern in logistics and supply chain management, as institutions face increasing pressure to reduce the environmental impact of their

operations. Logistics activities such as transportation, procurement, warehousing, and distribution contribute to greenhouse gas emissions, energy use, and waste generation. These environmental repercussions have increased the need for enterprises to incorporate environmental considerations into their logistics operations by using green logistics techniques. Although the concept of green logistics has been interpreted differently in the literature, its primary objective is to reduce environmental harm caused by logistics activities (Chepurna et al., 2025). Green logistics is the process of incorporating environmental factors into logistics operations to increase resource efficiency, reduce pollution, limit waste, and encourage environmentally responsible operational performance. However, implementing such techniques depends not only on organizational decisions. The institutional and regulatory environments in which institutions operate also affect implementation.

In this sense, government policies and regulations play a significant role in encouraging environmental responsibility by establishing legal requirements, defining environmental standards, and guiding organizations toward sustainable operating practices. Government laws and regulations significantly affect green logistics because they shape organizational decisions about the procurement, movement, storage, and distribution of commodities. Environmental legislation, sustainable procurement regulations, and regulatory compliance standards can all help institutions integrate environmental considerations into their logistics and supply chain operations. These instruments enable governments to set expectations for resource efficiency, pollution prevention, waste management, and environmentally responsible procurement and distribution. Empirical research suggests that institutional and regulatory forces can influence the adoption of green supply chain practices by shaping organizational expectations and environmental responses (Hoejmose et al., 2014; Jazairy & von Haartman, 2020). Similarly, Zhu et al. (2013) show how institutional factors influence the adoption of internal and external green supply chain management methods. However, the existence of policies and laws does not guarantee their implementation in actual organizational operations. Their influence depends on how institutions interpret regulatory requirements, incorporate them into operational procedures, and respond to institutional expectations. As a result, assessing the impact of government policies and regulations requires considering both the formal regulatory environment and the extent to which its requirements are reflected in organizational logistics practices.

In Tanzania, government policies and regulations provide an important institutional framework for promoting environmental preservation and sustainable operational practices. Environmental Management Act, Cap. 191 (R.E. 2023) establishes the legislative and institutional framework for environmental management, including pollution prevention, waste management, environmental quality standards, compliance, and enforcement (United Republic of Tanzania, 2004/2023). Similarly, the Public Procurement Regulations, 2024 (GN No. 261 of 2025) specify the standards for sustainable supply chain management and environmental conservation in public procurement. Regulation 4 specifically requires procuring organizations to adhere to environmental conservation principles throughout the supply chain management process. These standards address environmental concerns in procurement planning and specifications, tender documents, contractual duties, and the reception, storage, handling, and distribution of commodities (United Republic of Tanzania, 2025).

Furthermore, the Public Procurement Regulatory Authority's (PPRA) General Guidelines for Sustainable Public Procurement, 2025, outline how to incorporate sustainability considerations throughout the public procurement cycle, including market research, budgeting, procurement planning, tendering, evaluation, contract awards, and contract management (PPRA, 2025). These frameworks provide formal requirements for incorporating environmental issues into public-sector procurement and supply chain activities. Their relevance to green logistics stems from their ability to promote ecologically responsible purchasing, resource efficiency, pollution prevention, and sustainable handling and distribution of commodities. However, it is still unclear how much influence these statutory restrictions have on the actual implementation of green logistical practices within public organizations.

The existing empirical research highlights how institutions and governments promote sustainable logistics and supply chains. Shamout et al. (2024) found that institutional quality shapes the relationship between logistics performance and environmental sustainability across industrialized and developing nations. Kim et al. (2024) showed that green logistics, supported by government policies and public environmental disclosure, can improve logistics firms' financial efficiency. Jazairy and von Haartman (2020) found that regulatory, commercial, and competitive pressures influence shippers' and logistics providers' adoption of green supply chain strategies. Hoejmose et al. (2014) likewise showed that institutional influences shape firms' green supply chain practices. Collectively, these studies indicate that organizational motivations, institutional expectations, and government interventions drive sustainable logistics decisions. Because these influences vary across organizational, economic, and institutional contexts, further context-specific research is needed.

The implementation of green logistics in poor countries is an essential subject for further inquiry because the institutional and organizational settings in which firms operate shape how government policies and regulations influence logistics practices. Before formal regulatory requirements can affect logistics practices, they must be interpreted and translated into organizational choices and operational procedures. This includes incorporating environmental criteria into purchasing decisions, transportation plans, storage and distribution procedures, and waste management activities. Although previous research has examined institutional pressures, government policies, and environmental sustainability in logistics and supply chain management, much of the evidence focuses on organizational and economic relationships, which may not fully explain the implementation of green logistics across diverse public-sector institutional settings (Kim et al., 2024; Shamout et al., 2024; Zhu et al., 2013). Public institutions, in particular, warrant special consideration because they operate within formal administrative, procurement, and accountability frameworks that can influence how environmental standards are understood and implemented. As a result, studying the impact of government policies and regulations on developing-country public institutions can help us better understand how formal regulatory expectations drive environmentally responsible logistical practices.

Government rules are particularly important for public institutions, which must comply with procurement laws, administrative procedures, directives, and accountability requirements. These frameworks create opportunities to embed environmental considerations in procurement, shipping, warehousing, distribution, and waste management. Sustainable procurement rules, for

example, can promote environmental criteria in specifications, supplier evaluations, and contract management (PPRA, 2025), prioritizing eco-friendly goods and services, resource efficiency, waste reduction, and responsible supply chains. Yet requirements alone do not ensure their integration into routine logistics. Their impact depends on how well institutions understand and implement them in operational decisions, making public institutions a useful setting for examining links between regulation and green logistics.

Despite growing scholarly interest in green logistics and green supply chain management, empirical research on how government policies and regulations affect green logistics practices in Tanzanian public institutions remains scarce. Prior research has examined institutional pressures, government policies, and other external factors that influence green logistics and supply chain practices (Hoejmose et al., 2014; Jazairy and von Haartman, 2020; Kim et al., 2024; Zhu et al., 2013). However, these studies offer limited insight into how government policies and laws influence the adoption of green logistics techniques by Tanzanian public entities. Furthermore, research on the relationship between institutional quality, logistics performance, and environmental sustainability has focused on broader economic and institutional relationships rather than the specific organizational processes that public institutions use to translate regulatory requirements into logistics practices (Shamout et al., 2024).

As a result, empirical research is needed to determine the extent to which official government mandates are reflected in organizational actions across environmentally responsible procurement, transportation, warehousing, distribution, and waste management. This is an essential contextual and explanatory knowledge gap, since the mere existence of regulatory frameworks does not determine whether or to what extent they influence actual organizational logistics practices.

Addressing this gap is critical to academic research and public-sector activity. Academically, examining the relationship between government policies and regulations and green logistical practices can provide context-specific evidence on how institutions in developing countries influence environmental sustainability. From a policy perspective, the findings can clarify how existing regulatory requirements affect the adoption of environmentally responsible logistics methods and identify areas where implementation may need improvement. Understanding this relationship may help public institutions better integrate environmental criteria into logistics planning and operational decisions. The research also has theoretical significance: Institutional Theory explains how formal government requirements and regulatory expectations can impose coercive constraints on organizational practices (DiMaggio & Powell, 1983; Meyer & Rowan, 1977).

Against this backdrop, this study seeks to investigate the impact of government policies and regulations on green logistical practices in Tanzanian public institutions, with a focus on Tanzania Telecommunications Corporation Limited (TTCL) and Tanzania Posts Corporation (TPC). The study aims to examine the impact of government policies and regulations on the implementation of green logistical practices in these organizations. The study usesd a mixed-methods approach to investigate the relationship from both quantitative and qualitative viewpoints. The quantitative component evaluates the impact of government policies and regulations on green logistics practices, whereas the qualitative component investigates how

institutional actors understand, interpret, and apply relevant policy and regulatory requirements in their operational contexts. Integrating quantitative and qualitative evidence allows the study to investigate both the measurable association between the study variables and the institutional experiences that may contribute to the observed relationship (Fetters et al., 2013). By combining these viewpoints, the study aims to provide a more thorough knowledge of how government policies and laws influence green logistics practices in the chosen public institutions. The findings are expected to provide context-specific evidence that policymakers and institutional managers may use, as well as contribute to the growing literature on institutional impacts and green logistics practices in developing-country public institutions.

This research is grounded in Institutional Theory, which explains how the institutional settings in which organizations operate shape their structures, choices, and practices. The idea builds on Meyer and Rowan's (1977) contributions, expands on DiMaggio and Powell's (1983) explanation of institutional isomorphism, and is refined by Scott (2014) through the three institutional pillars: regulative, normative, and cultural-cognitive. According to Institutional Theory, organizations seek legitimacy by maintaining organizational approval and aligning their activities with established rules and public expectations.

A major tenet of Institutional Theory is that external institutional constraints shape organizational behavior, prompting firms to adopt practices considered appropriate within their operational settings. DiMaggio and Powell (1983) identify three ways institutional forces influence organizational behavior: coercive, normative, and mimetic pressures. Coercive pressures stem from formal and informal demands imposed by governments, regulatory bodies, and other institutions on which organizations rely. Professional standards and expectations create normative pressures, whereas mimetic pressures arise when companies copy the practices of other organizations, especially in uncertain situations. These factors explain why firms may adopt identical behaviors in response to institutional expectations, even when they are not solely motivated by operational efficiency concerns.

This study draws primarily on Institutional Theory's regulative dimension and coercive pressure. Government policies, environmental laws, procurement restrictions, and sustainability criteria establish formal expectations that shape green logistics in public institutions. These requirements can drive environmental considerations in procurement, transport, warehousing, distribution, resource use, and waste management. Public organizations may adopt green logistics to comply with government rules and demonstrate adherence to environmental and procurement standards. Thus, laws and regulations are a key source of coercive pressure on logistical decisions.

However, Institutional Theory provides a framework for explaining why the existence of regulatory requirements does not always result in uniform organizational practices. Organizations can differ in how they interpret, respond to, and implement institutional expectations. According to Meyer and Rowan (1977), formal organizational structures can reflect institutionalized rules and expectations without fully incorporating them into ordinary organizational activity. This distinction is especially pertinent to the current study since public organizations may nominally accept environmental policies and regulatory requirements without necessarily implementing all of them in ordinary logistics activities. The impact of coercive

pressures may therefore be determined by organizational actions and the extent to which regulatory requirements are incorporated into operational procedures. This viewpoint is corresponding with empirical research showing that institutional forces influence the adoption of green supply chain practices, albeit organizational responses may differ across contexts (Hoejmose et al., 2014; Jazairy & von Haartman, 2020). As a result, Institutional Theory provides a solid platform for investigating how government policies and regulations affect the implementation of green logistical techniques in TTCL and TPC. It enables the study to explore how formal government requirements influence organizational environmental practices in the Tanzanian public sector.

Governments establish environmental policies and regulatory frameworks to encourage sustainable organizational practices. In Tanzania, public institutions operate within regulatory frameworks that require environmental considerations to be integrated into procurement and other operational activities. However, the existence of these policies and regulations does not necessarily indicate the extent to which they influence actual green logistics practices. The relationship between formal regulatory requirements and their translation into organizational logistics decisions therefore requires empirical examination. Although previous studies have investigated institutional pressures, government policies, and green supply chain practices, there remains a need for context-specific evidence on how government policies and regulations influence green logistics practices in Tanzanian public institutions. Consequently, this study investigates this relationship using TTCL and TPC as its empirical settings, drawing on Institutional Theory to explain how coercive institutional pressures may shape organizational environmental practices.

2.0 MATERIALS AND METHODS

2.1 Research design

This research employed a convergent parallel mixed-methods approach, combining quantitative and qualitative evidence to investigate the factors influencing green logistics practices in Tanzania's public communication institutions. Quantitative data were analyzed to assess associations and the individual contributions of government policies and regulations, organizational factors, environmental awareness, and implementation challenges to green logistics practices. Interviews provided additional insights into the institutional contexts and operational experiences that shape the adoption of environmentally responsible logistics activities. Both data types were collected during the same research period, analyzed separately, and then integrated to provide a broader understanding of green logistics practices in the selected institutions.

The study was conducted in Dar es Salaam, Tanzania’s largest and commercial city. Dar es Salaam is located along the Indian Ocean coast of Tanzania at approximately 06°48′ South latitude and 39°17′ East longitude (UN-Habitat, 2020). The city has a hot, humid coastal climate, with relatively high temperatures and humidity throughout the year (UN-Habitat, 2020). As Tanzania's largest commercial, industrial, and administrative city, it hosts major government institutions, corporate headquarters, transport infrastructure, and communication service providers, making it a strategic center for logistics, supply chain management, and distribution activities. The headquarters of TTCL and TPC were selected because they serve as central points

for policy formulation, strategic decision-making, and coordination of logistics operations, including procurement, transportation, warehousing, and distribution. They also have key management and operational personnel responsible for implementing sustainability and logistics policies. These operational characteristics provide an appropriate context for examining the application of green logistics practices within public communication institutions.

The target population comprised 120 employees, comprising 75 from TTCL and 45 from TPC whose responsibilities were related to logistics, transport, procurement and supplies, warehousing and inventory, engineering and technical operations, general operations, and administration. Yamane's (1967) formula was adopted to determine the sample size because the study involved a known and finite population, with a 5% level of precision. The formula is expressed as:

$$n = \frac{N}{1 + N(e^2)}$$

Where n is the sample size, N is the total population (120), and e is the level of precision set at 0.05. Substituting the values:

$$n = \frac{120}{1 + 120(0.05^2)} = \frac{120}{1 + 120(0.0025)} = \frac{120}{1 + 0.30} = \frac{120}{1.30} \approx 92$$

Therefore, the study used a sample of 92 respondents, which was considered sufficient to represent the population and generate reliable results. The sample includes 58 respondents from TTCL and 34 from TPC. This distribution ensures that both institutions are adequately represented, allowing the study to capture diverse perspectives from key functional areas involved in green logistics practices.

The study employed two sampling techniques, stratified and purposive sampling, to select 92 survey respondents from relevant departments within TTCL and TPC. The strata comprised Logistics and Transport, Procurement and Supply Chain Management, Warehouse and Inventory Management, and Operations Administration (Creswell & Plano Clark, 2023). For the qualitative component, purposive sampling was used to select eight key informants, comprising five from TTCL and three from TPC. The key informants were selected based on their responsibilities, experience, and knowledge of procurement, transport, fleet management, warehousing, operations, and administrative practices (Creswell & Plano Clark, 2023; Kumar, 2021).

The quantitative data were collected using a structured questionnaire administered to the sampled employees. The questionnaire included statements on government policies and regulations, organizational factors, environmental awareness, implementation challenges, and green logistics practices. Of the 92 questionnaires distributed, 88 were returned, yielding a 95.7% return rate. Of these, 83 were sufficiently complete for analysis, resulting in a 90.2% usable response rate.

Qualitative data were collected through interviews with eight purposively selected key informants from TTCL and TPC. The interviews examined practical institutional mechanisms that affect green logistics, including government procurement requirements, environmental compliance, fleet management, sustainable transport, waste handling, employee training, digital

systems, resource availability, and operational constraints. The qualitative evidence was then used to explain and contextualize the quantitative results.

The dependent variable was Green Logistics Practices (GLP), while the independent variables were Government Policies and Regulations (GPR), Organizational Factors (OF), Environmental Awareness (EA), and Implementation Challenges (IC). Each construct was measured using multiple questionnaire statements on a five-point Likert scale, ranging from low disagreement to high agreement. Government Policies and Regulations captured issues such as compliance with government procurement and environmental requirements, vehicle standards, waste-management requirements, and relevant policy provisions. Organizational Factors measured internal policies, management support, financial resources, fleet management, infrastructure, and organizational mechanisms supporting green logistics. Environmental Awareness assessed employee knowledge, training, and environmentally responsible operational behavior. Implementation challenges captured constraints relating to financial resources, technology, vehicle and equipment conditions, procurement processes, management support, and operational pressures. Green Logistics Practices covered activities such as sustainable procurement, route planning, fleet monitoring, vehicle maintenance, cleaner transport technologies, digital documentation, recyclable or reusable materials, and appropriate waste management.

The questionnaire items were developed to correspond with the study objectives and the conceptualization of the research variables. Content relevance was strengthened by ensuring that the measurement items captured the key dimensions of each construct examined in the study. The instruments were also reviewed and refined before administration to improve item clarity and consistency. Internal consistency reliability was assessed using Cronbach's alpha, a widely used coefficient for evaluating the reliability of research instruments (Taber, 2018). The resulting coefficients were 0.86 for Government Policies and Regulations, 0.85 for Organizational Factors, 0.83 for Environmental Awareness, 0.91 for Implementation Challenges, and 0.92 for Green Logistics Practices. These results indicate acceptable internal consistency across all constructs, with Green Logistics Practices demonstrating the highest reliability coefficient (0.92) and Environmental Awareness the lowest (0.83). Overall, all constructs demonstrated good internal consistency for the purposes of the study.

Quantitative data were coded and analyzed using statistical procedures appropriate to the study objectives. Descriptive statistics, particularly means and standard deviations, summarized respondents' assessments of the study variables and described the observed level of green logistics-related practices. Pearson product-moment correlation analysis was conducted to determine the direction and strength of the bivariate relationships between the explanatory variables and Green Logistics Practices. Multiple linear regression analysis was subsequently employed to assess the unique predictive contribution of Government Policies and Regulations, Organizational Factors, Environmental Awareness, and Implementation Challenges to Green Logistics Practices while controlling for the simultaneous effects of the other predictors. Statistical significance was evaluated at the 5% level (Wisniewski & Brannan, 2024). The regression analysis also considered model fit and multicollinearity diagnostics, including the coefficient of determination, F-statistic, tolerance values, and variance inflation factors (VIF).

For the qualitative component, interview data were analyzed thematically (Braun & Clarke, 2006). Relevant statements were coded and grouped into themes aligned with the study variables and emerging operational issues. The qualitative findings were then integrated with the quantitative results to explain the mechanisms underlying the statistical relationships and to provide contextual interpretation of the findings.

The study followed standard research ethics. Participation was voluntary, and respondents were informed of the study's purpose, confidentiality protections, and academic use of their information. Findings did not identify individuals, and respondents could provide information without pressure. Institutional permission and research requirements were met before data collection.

3.0 RESULTS

3.1 Government policies and regulations

Government Policies and Regulations (GPR) were assessed using five items for each institution on a five-point Likert scale. The findings in Table 1 indicate relatively high agreement with statements about government policies, regulatory requirements, and their application to logistics-related activities. At TTCL, the highest mean score was for obtaining required environmental approvals for applicable projects, such as new telecommunications towers and data centers (M = 4.450, SD = 0.637). Regular vehicle servicing to meet government standards also recorded a high score (M = 4.420, SD = 0.663). The lowest score concerned staff familiarity with government requirements for handling and disposing of used cables, batteries, and ICT equipment (M = 4.080, SD = 0.805).

In Table 1, the findings for TPC indicate that compliance with government vehicle inspection requirements had the highest mean (M = 4.333, SD = 0.661). Compliance with National e-Procurement System (NeST) requirements and the use of reusable or recyclable packaging both had means of 4.233. The lowest mean was observed for the statement that government transport policies encourage fuel-efficient vehicles (M = 4.133, SD = 0.571).

Table 1: ***Government policies and regulations***

Institution	Government policies and regulations measure	Mean	SD
TTCL (n = 53)	Required environmental approval is obtained for applicable projects	4.450	0.637
	Staff are familiar with government rules for handling and disposal of used cables, batteries and ICT equipment	4.080	0.805
	Vehicles are serviced regularly to meet government standards	4.420	0.663
	Government procurement guidelines encourage efficient/environmentally friendly goods and services	4.250	0.731
	Applicable National ICT Policy requirements are followed	4.150	0.770
TPC (n = 30)	NeST requirements are followed when purchasing goods and services	4.233	0.728

	Government transport policies encourage fuel-efficient vehicles	4.133	0.571
	Government procurement guidelines encourage reusable/recyclable packaging	4.233	0.679
	Government vehicle inspection requirements encourage vehicle maintenance	4.333	0.661
	Government waste-handling and disposal guidelines are followed	4.167	0.648

Source: Field data (2026).

A Pearson product-moment correlation analysis was used to assess the relationship between Government Policies and Regulations and Green Logistics Practices. The results showed a positive and statistically significant association between the two variables ($r = 0.304$, $p = 0.005$), as shown in Table 2. Thus, higher reported levels of government policy and regulatory implementation were associated with higher levels of Green Logistics Practices in the two institutions.

Table 2: ***Pearson Correlation Matrix of the Study Variables***

Study Variable	Government Policy and Regulations	Organizational Factors	Environmental Awareness	Implementation Challenges	Green Logistics Practices
Government Policy and Regulations	1.000	0.308**	0.370**	0.340**	0.304**

A multiple linear regression model was estimated to determine whether Government Policies and Regulations made an independent contribution to Green Logistics Practices after accounting for Organizational Factors, Environmental Awareness, and Implementation Challenges. The overall model was statistically significant, $F(4, 78) = 9.193$, $p < 0.001$, with $R = 0.566$, $R^2 = 0.320$, and adjusted $R^2 = 0.286$. The model therefore accounted for 32.0% of the observed variation in Green Logistics Practices.

The study findings show that Government Policies and Regulations had a positive, statistically significant standardized coefficient ($\beta = 0.201$, $p = 0.020$). The coefficient remained significant after the other explanatory variables were included in the model. Regression diagnostics also indicated no apparent multicollinearity concerns, with the VIF for Government Policies and Regulations at 1.282 (Table 3).

Table 3: ***Multiple regression results for green logistics practices***

Predictor	B	SE	β	T	p	Tolerance	VIF
Government Policies and Regulations	0.185	0.078	0.201	2.372	0.020	0.780	1.282

Source: Field Data (2026)

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Model summary: R = 0.566; R^2 = 0.320; Adjusted R^2 = 0.286; F (4, 78) = 9.193; p < 0.001; Standard Error of Estimate = 0.435.

The qualitative component comprised interviews with eight key informants, five from TTCL and three from TPC. Evidence specifically related to Government Policies and Regulations was organized into four main themes: public procurement compliance, environmental and waste management requirements, regulatory support for sustainable technologies, and procedural implications of compliance. The interview findings revealed that compliance with public procurement procedures and environmental regulations influences institutional decisions and operational practices related to green logistics. These qualitative findings are summarized in Table 4.

Table 4. ***Qualitative themes related to government policies and regulations***

Theme	Evidence from TTCL and TPC
Public procurement compliance	Both institutions reported using NeST and complying with applicable public procurement requirements when acquiring logistics-related goods and services.
Environmental and waste requirements	Respondents described procedures for managing obsolete ICT equipment, batteries, cables and tyres, including controlled storage and disposal through appropriate channels.
Support for sustainable technologies	Government support was associated with the introduction or acquisition of cleaner transport options, including electric vehicles, motorcycles and tricycles, particularly at TPC.
Compliance-related procedures	Although regulatory and procurement procedures supported accountability and standardization, respondents reported that some procurement processes could take considerable time, affecting the acquisition of vehicles, spare parts and other logistics resources.

Source: Field Data (2026).

Government Policies and Regulations play a significant role in promoting Green Logistics Practices in public communication institutions in Tanzania. The quantitative results established a positive and statistically significant association between the two variables (r = 0.304, p = 0.005), while the regression analysis showed that Government Policies and Regulations made a significant, positive, independent contribution to Green Logistics Practices (β = 0.201, p = 0.020). The qualitative evidence further identified procurement compliance, environmental requirements, waste-management procedures, and support for cleaner transport technologies as practical areas through which government policies and regulations were reflected in institutional logistics operations. This convergence between the quantitative and qualitative evidence suggests that government policies and regulatory requirements play an important role in promoting green logistics practices at TTCL and TPC.

4.0 DISCUSSION

The study found that government policies and regulations were positively and significantly associated with green logistics practices (GLP) in public communication institutions in Tanzania.

This finding suggests that stronger implementation and adherence to government policies and regulatory requirements are linked to greater adoption of environmentally responsible logistics practices. The result is particularly relevant to public institutions because their procurement, transportation, waste management, and related logistics activities operate within formal government regulatory systems.

The finding is consistent with Kim, Na, and Ha (2024), who found that government policy was an important factor associated with green logistics practices and organizational performance in the logistics sector. Similarly, Alvarenga et al. (2023) reported that institutional pressures significantly influenced green logistics activities, including green transportation and packaging. They also identified institutional pressures as important drivers of green logistics adoption, although their effects depend on organizational capabilities and the broader operating environment. These studies support the present finding that government regulation can provide an external stimulus for environmental improvements in logistics.

The result can be explained by the regulatory environment in which Tanzanian public institutions operate. Government policies set standards and procedures that shape decisions on procurement, vehicle management, environmental compliance, and waste disposal. Qualitative findings support this interpretation, as respondents from TTCL and TPC reported compliance with government procurement procedures, use of the National e-Procurement System (NeST), adherence to environmental requirements, and controlled management of obsolete ICT equipment, batteries, cables, and tires. These requirements can embed environmental considerations in routine institutional operations rather than in voluntary initiatives. In this sense, regulation provides a formal mechanism for incorporating sustainability expectations into logistics activities.

The findings also relate to Institutional Theory, particularly the concept of coercive institutional pressure. Public institutions are subject to laws, regulations, government directives, and administrative requirements that encourage conformity with established expectations. The significant relationship identified in this study indicates that such external institutional pressure contributes to the adoption of green logistics practices. However, the relatively moderate standardized coefficient ($\beta = 0.201$) also indicates that government regulation alone does not determine the extent of green logistics adoption. Policies set expectations, but their practical effect depends on institutions' ability to translate those requirements into operational procedures and practices.

The evidence also suggests that procurement regulations can serve as an institutional mechanism for promoting green logistics by requiring public institutions to adhere to established procurement standards and accountability procedures. From the perspective of Institutional Theory, this reflects coercive institutional pressures, whereby organizations comply with government rules and regulatory requirements to meet institutional expectations (Scott, 2014). However, the qualitative evidence also indicated that lengthy procurement procedures may delay the acquisition of vehicles, spare parts, and other logistics resources. This highlights the need to balance regulatory compliance with operational efficiency. Alvarenga et al. (2023) similarly established that institutional pressures influence green logistics activities and efficiency performance, while Baah et al. (2020) shows the importance of regulatory stakeholder pressures

in shaping green logistics practices. Therefore, improving the efficiency and responsiveness of regulatory and procurement systems is important for achieving both compliance and operational effectiveness.

The findings further highlight the importance of environmental and waste management requirements. The reported handling and controlled disposal of obsolete ICT equipment, batteries, cables and tyres show how government requirements can influence logistics activities beyond transportation and procurement. These findings are consistent with Agyabeng-Mensah et al. (2020), who established that green logistics management practices contribute positively to environmental sustainability. Similarly, Alvarenga et al. (2023) indicated that institutional pressures influence the adoption of green logistics activities, including practices relating to warehousing and transportation. These studies reinforce the importance of integrating environmental requirements into logistics operations to minimize environmental impacts and promote sustainable resource management. Therefore, effective implementation of environmental regulations and proper waste management procedures is essential for strengthening environmental responsibility in public communication institutions

From a managerial perspective, the findings suggest that TTCL, TPC and similar public institutions should embed government environmental requirements in their internal logistics procedures, rather than treat them merely as compliance obligations. Managers can support this by including environmental criteria in procurement decisions, maintaining vehicles to applicable standards, improving waste-management procedures and monitoring compliance with relevant environmental regulations. Policymakers, meanwhile, should continue to strengthen green procurement and environmental requirements while simplifying procedures that unnecessarily delay operational decisions.

The findings show that government policies and regulations are a significant institutional driver of green logistics practices in Tanzanian public communication institutions. They support the view that effective regulation can create an institutional environment that encourages environmentally responsible logistics. At the same time, the moderate strength of the relationship indicates that regulation needs to be supported by effective organizational systems and implementation capacity. The contribution of government policy is therefore greatest when regulatory expectations are translated into practical, efficient, and consistently implemented logistics procedures.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusion

This study examined how government policies and regulations influence the implementation of green logistics practices in public communication institutions in Tanzania, focusing on TTCL and TPC. The findings show that government policies and regulations are a significant positive factor in implementing green logistics practices. Government policies and regulations were significantly associated with green logistics practices, and their independent contribution remained statistically significant in the regression model.

The findings indicate that regulatory requirements for public procurement, environmental compliance, vehicle standards, and waste management provide an important institutional basis

for integrating environmental considerations into logistics operations. Qualitative evidence further confirmed that compliance with procurement procedures, environmental requirements, and the appropriate handling of obsolete equipment contributes to the implementation of environmentally responsible logistics practices.

Government policies and regulations constitute an important institutional driver of green logistics practices in Tanzanian public communication institutions. However, the moderate strength of the relationship indicates that regulatory requirements alone are unlikely to determine the extent of implementation. Their effectiveness depends on how efficiently institutions translate policy requirements into practical logistics procedures. Strengthening the clarity, implementation, and operational efficiency of relevant policies can therefore provide a stronger foundation for sustainable logistics practices in public institutions.

The study had three main limitations. First, it covered only TTCL and TPC, which may limit the generalizability of the findings to other public institutions with different operational and resource conditions. Second, reliance on respondents' perceptions may not fully reflect objectively measured green logistics performance, despite using both questionnaires and interviews. Third, the regression model explained 32.0% of the variation in green logistics practices, suggesting that other factors not examined in this study may also influence their adoption.

5.2 Recommendations and Implications

Based on the findings, the study recommends that public institutions strengthen the integration of environmental requirements into procurement and logistics procedures. Government procurement processes should, where applicable, give greater consideration to environmentally preferable goods, services, vehicles, and equipment while maintaining transparency and accountability.

In addition, government agencies responsible for procurement, transport, and environmental regulation should improve the efficiency and clarity of regulatory procedures. Qualitative findings indicated that lengthy procurement processes can delay the acquisition of logistics resources. Streamlining administrative procedures and improving the efficiency of electronic procurement processes could help institutions comply with regulatory requirements without unnecessarily affecting operational responsiveness.

Furthermore, TTCL, TPC, and similar public institutions should translate government environmental requirements into clear internal logistics procedures. Particular attention should be given to vehicle maintenance, environmentally responsible procurement, and the handling, storage, and disposal of obsolete ICT equipment, batteries, cables, and tires.

Ultimately, institutional monitoring of regulatory compliance should be strengthened. Managers should incorporate relevant environmental and regulatory requirements into logistics performance monitoring so that compliance becomes a routine component of operational decision-making rather than a purely administrative obligation.

These measures would strengthen the practical contribution of government policies and regulations to green logistics implementation while maintaining the operational requirements of public institutions.

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