An Appraisal of Environmental, Social and Governance (ESG) Indicators of Public Procurement Key Stakeholders in Nigeria [1, 2]

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Abstract

Despite growing global emphasis on sustainability, Environmental, Social, and Governance (ESG) indicators are yet to be fully integrated and assessed among key stakeholders in Nigeria's public procurement system. This study appraised ESG indicators among key stakeholders involved in public procurement in Nigeria, focusing on contractors, procurement officers, and regulatory institutions. It underscores the critical need for comprehensive ESG integration into procurement practices—an area that has received limited attention in the Nigerian context. The research specifically targets stakeholders operating in compliance with the Bureau of Public Procurement (BPP) guidelines and the Pension Reform Act (PRA) 2014, emphasizing their roles in advancing sustainable public procurement. A quantitative research approach was employed, utilizing structured questionnaires to collect data from contractors. The data were analyzed using descriptive statistics, including mean and standard deviation, along with Analysis of Variance (ANOVA) to assess the extent of stakeholder involvement in ESG practices. A total of one hundred and forty-two (142) valid responses were analyzed. Findings reveal that key stakeholders demonstrate moderate level of involvement in promoting ESG principles, where the highest-rated involvement indicators were monitoring and evaluation while the lowest were incentives and availability of training The study recommends that Procuring entities should facilitate platforms

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for enhanced collaboration between themselves and contractors. The study also contributes to the discourse on sustainability in public procurement by offering insights into the role of stakeholders in institutionalizing ESG practices and identifies areas for policy and capacity development to foster sustainable procurement in Nigeria.

Keywords: *Public Procurement, Environmental Practices, Social Responsibility, Governance, ESG Integration*

1.0 Introduction

In recent years, countries around the world have increasingly prioritized the sustainable development of their economies and societies (Sianes *et al*., 2022; UNEP, 2022; Jayashree *et al*., 2021). This global emphasis is driven by the understanding that sustainable development is essential for ensuring long-term economic resilience, environmental protection, and social equity. One of the key tools being leveraged by governments to promote sustainability is sustainable public procurement—a strategic instrument capable of influencing corporate practices and advancing national sustainability agendas (Behravesh *et al*., 2022).

Globally, public procurement accounts for approximately 15–20% of gross domestic product (GDP) and is increasingly being used to promote Environmental, Social, and Governance (ESG) objectives (OECD, 2021). Environmental, Social, and Governance (ESG) refers to standards that assess an organization's sustainability and ethical impact. Environmental criteria evaluate how activities affect the planet; social criteria examine relationships with stakeholders; and governance focuses on accountability and transparency (UN Global Compact, 2021). In public procurement, integrating ESG ensures that government purchasing supports sustainable development by promoting environmental responsibility, social inclusion, and good governance (OECD, 2020). Developed economies such as the United Kingdom and members of the European Union have embedded ESG standards within their procurement systems. For instance, the UK's Public Procurement Notice PPN06/20 mandates ESG compliance, while the EU's Green Public Procurement (GPP) policy requires environmental sustainability to be factored into public purchasing decisions (European Commission, 2021). These international examples demonstrate how governments can use procurement policy to lead by example and incentivize sustainable business practices.

In response to these trends, numerous studies have examined the integration of ESG principles into public procurement frameworks across various jurisdictions. Scholars such as Koelemeijer *et al*. (2020), Clementino and Perkins (2021), and Oseloka *et al*. (2018) have documented the positive correlation between sustainable public procurement and improved ESG performance by contractors. These studies suggest that embedding ESG criteria in public contracting can enhance

corporate responsibility, improve stakeholder relationships, and contribute to long-term economic and environmental goals.

However, the situation in Nigeria presents a contrasting picture. Although public procurement represents a significant share of national expenditure and holds great potential to promote sustainability, Nigeria's procurement framework lacks a clear and enforceable structure for evaluating or enforcing ESG compliance among contractors (Okorie & Adegbite, 2020). This gap in policy and regulation has resulted in inconsistencies in ESG practices, limited monitoring, and weak accountability mechanisms (Oke *et al*., 2022). The Bureau of Public Procurement (BPP) and other regulatory bodies have yet to institutionalize standardized ESG assessment criteria within procurement processes, creating challenges in ensuring ethical, socially responsible, and environmentally sound practices (Bureau of Public Procurement, 2022: UNDP, 2021).

Furthermore, the adoption of ESG principles in Nigeria is impeded by a combination of factors including low awareness, limited capacity among procurement officers, financial constraints faced by contractors, and weak regulatory enforcement (Ma *et al*., 2019; Oke *et al*., 2022; UNEP, 2022). While global debates around ESG sometimes center on the cost implications for firms—some arguing it reduces profitability (Friedman, 1970), others emphasizing long-term strategic benefits (Hunjra *et al*., 2021)—Nigeria's experience is shaped more by institutional inefficiencies and lack of operational guidance than by theoretical disagreement.

Previous studies have highlighted the importance of integrating Environmental, Social, and Governance (ESG) principles into public procurement as a strategic tool for promoting sustainable development, especially in developed economies where procurement policies mandate ESG compliance (Ma *et al*., 2019; UNEP, 2022). These studies often emphasize policy frameworks, contractor performance, or environmental considerations but rarely explore how public procurement stakeholders themselves—such as procuring entities, regulatory agencies, and oversight bodies—engage with and influence ESG outcomes. In Nigeria, while the Public Procurement Act (PPA) 2007 establishes the foundation for accountability and transparency, it lacks explicit provisions for ESG integration. Consequently, there is a limited understanding of how key stakeholders in Nigeria's public procurement system respond to ESG imperatives or contribute to their adoption. Existing literature does not sufficiently capture the roles, awareness levels, or institutional mechanisms used by these stakeholders to drive ESG implementation. Therefore, this study seeks to appraise the ESG indicators of public procurement key stakeholders in Nigeria, with the aim of identifying strengths, gaps, and opportunities for strengthening ESG integration in public procurement practice.

2.0 Methodology

This section discusses the research methodology employed to achieve the study's aim and objectives. It includes details on the research approach, target population, sample size determination, data collection instruments, sampling techniques, and methods of data analysis. The methodology is designed to appraise public procurement entities' involvement for contractors' Environmental, Social, and Governance (ESG) practices, ensuring the research is conducted systematically and yields valid results.

The population for this research consists of contractors operating across Nigeria who are guided by the regulations of the Bureau of Public Procurement (BPP). These contractors are integral to public procurement processes and interact closely with procurement entities, making them well-suited respondents for examining the integration of Environmental, Social, and Governance (ESG) principles into public procurement practices.

The sample size for this study is approximately 230 contractors, ensuring a statistically reliable representation of the population.

The primary data collection instrument for this study is a structured questionnaire. This tool is efficient for gathering data from a large number of respondents, enabling a systematic approach to data collection. The questionnaire is designed to capture valuable insights into contractors' awareness and involvement with Environmental, Social, and Governance (ESG) principles, as well as the role of public procurement entities in supporting these practices.

2.0 Method of Data Analysis

The data collected from the questionnaire was analyzed using descriptive statistics and Anova. These methods are chosen for their ability to provide a comprehensive overview of the data and to uncover insights into the relationships between public procurement entities' support for contractors' ESG performance and other relevant factors.

Descriptive Statistics

Descriptive statistics was utilized to summarize the responses and provide an overview of contractors' perceptions and the degree of support they receive from public procurement entities. Key measures such as the mean, standard deviation, and group mean were calculated for each set of variables, enabling the analysis to capture central tendencies and variability in contractors' ESG performance indicators.

Each set of indicators (such as Environmental, Social, Governance, Legal Compliance, and Product/Corporate Quality) were assessed separately, with the mean and standard deviation

calculated for each indicator. Group means were computed for broader categories, such as Environmental Indicators, Social Indicators, Governance Indicators, and Legal Compliance Indicators. This approach will help identify trends within these categories and provide a clearer understanding of contractors' overall performance and their perceptions of public procurement entities' support in these areas.

For example, the Environmental Indicators group mean provide an aggregate view of contractors' practices regarding environmental management, low-carbon emission plans, sustainable products, and environmental certifications. Similarly, the Social Indicators group mean will reflect trends related to social responsibility reports, safety goals, employee growth, and rural revitalization. The Governance Indicators and Legal Compliance Indicators group means will summarize responses related to governance practices, such as board independence, tax transparency, and legal compliance.

In addition, Analysis of Variance (ANOVA) was used to compare the means across different demographic groups. ANOVA also help in assessing the significance of the relationships between contractors' characteristics (e.g., business size, years of operation, familiarity with ESG principles) and their perceptions of public procurement entities' support for ESG performance. This test provide valuable insights into whether there are significant differences in responses based on contractors' demographic factors, adding depth to the analysis.

3.1 Results and Discussions

This chapter presents the results obtained from the analyses carried out as a result of the responses obtained from the respondents involved in the study.

Demography of Respondent

Table 1: Information Relating to Respondents

Educational Background	Frequency	Percentage
Social Sciences	49	34.5
Environmental Science	37	26.1
Engineering	33	23.2
Natural Science	18	12.7
Art and Creativity Studies	5	3.5
Total:	**142**	**100.0%**
Highest Academic Qualification		
OND/HND	57	40.1
BSc/B.Tech	38	26.8
PGD	3	2.1
MSc	42	29.6
PhD	2	1.4
Total:	**142**	**100.0%**

Professional Qualification		
Probationer	1	0.7
Graduate Member	20	14.1
Corporate Member	92	64.8
Fellow	29	20.4
Total:	**142**	**100.0%**
Years of Experience as a Contractor		
0-5 years	13	9.2
6-10 years	50	35.2
11-15 years	1	0.7
16-20 years	56	39.4
Above 20 years	22	15.5
Total:	**142**	**100.0%**
Rank/Position in the Organization		
Top Management	40	28.2
Middle Management	65	45.8
Lower Management	37	26.1
Total:	**142**	**100.0%**
Type of Contracts Carried Out		
Goods	21	14.8
Works	30	21.1
Consultancy Services	39	27.5
Non-Consultancy Services	19	13.4
Medical Services	19	13.4
Total:	**142**	**100.0%**

Source; field survey 2024

From Table 1, the demographic profile of respondents offers valuable insights into the characteristics of individuals engaged in public procurement and their potential influence on contractors' Environmental, Social, and Governance (ESG) performance in Nigeria. This demographic analysis provides a robust foundation for understanding how varied backgrounds, experiences, and roles contribute to the evolving dynamics of ESG-focused procurement practices.

The educational diversity of the respondents underscores the multidisciplinary nature of public procurement and its alignment with contractors' ESG performance. A significant portion of the respondents, 34.5%, have educational qualifications in social sciences, which suggests their strong foundational knowledge in policy, governance, and stakeholder engagement. These competencies are critical for driving ESG principles, particularly in addressing the social and governance aspects of procurement practices. Respondents with backgrounds in environmental sciences account for 26.1%, reflecting their capacity to evaluate and integrate environmental considerations into procurement processes. Engineering professionals, who make up 23.2%, bring technical expertise

essential for assessing the environmental and structural implications of projects. The presence of individuals from natural sciences (12.7%) and art and creativity studies (3.5%) highlights the incorporation of diverse perspectives, further enriching the scope of procurement decision-making. This broad educational spectrum positions procurement entities to effectively assess and support contractors' ESG initiatives across various sectors.

Table 2 Assessment of the awareness of ESG performance practices by contractors in Nigeria

ESG practices	Mean	SD	Group Mean
Environmental practices			**3.01**
Environmental Management System	3.08	1.036	
A low-carbon emission plan or goal	2.96	1.027	
Green business plan	2.94	1.016	
Environmental certification of the product/corporate	2.87	1.139	
Carbon footprint	3.0	1.14	
A sustainable product or service	3.01	1.089	
Environmental violations	3.21	1.15	
Social practices			**3.08**
Quality of social responsibility reports	3.06	1.142	
A goal or plan to reduce safety incidents	3.07	1.106	
Negative business events	2.94	1.097	
Trend of business accidents	3.08	1.113	
Social responsibility-related donations	3.11	1.109	
Employee growth rate	3.26	1.07	
Product/Corporate Quality practices			**3.08**
The product or corporate obtains quality certifications	3.19	1.131	
Corporate self-ESG supervision	2.96	1.092	
Governance practices			**3.03**
Related party transactions	2.9	1.013	
Board independence	2.87	1.137	
Overall financial credibility	3.21	1.096	
Short-term debt servicing risk	2.9	1.048	
Tax transparency	3.13	1.188	
Asset quality	3.11	1.115	
Risk of equity	3.04	1.045	
Quality of information disclosure	3.08	1.067	
Legal Compliance practices			**3.01**
Listed corporates and subsidiaries violations of the law	2.87	1.191	
Violation of rules and regulations by senior management and shareholders	3.15	1.158	

Source; field survey 2024

From table 2 above, among the environmental practices, environmental violations (mean = 3.21) emerged as the highest-ranked variable, suggesting a relatively higher level of awareness among procurement officers regarding the importance of compliance with environmental regulations. This could reflect growing recognition of the consequences of environmental degradation, especially in the context of construction and procurement processes, which are often heavily scrutinized for their environmental impacts (Stroehle, 2023). The significant attention paid to environmental violations could be a response to increasing regulations and global calls for sustainability, as reported by Ghosh *et al*. (2018).

On the other hand, environmental management systems (mean = 3.08) and carbon footprint (mean = 3.0) received moderate scores, indicating that procurement officers are somewhat familiar with these concepts but may not be fully equipped to implement them comprehensively within their procurement processes. This result mirrors the findings of OECD (2022), where it was noted that while environmental regulations are present, their practical integration into procurement policies remains a challenge for many entities, especially in emerging economies like Nigeria.

Table 3: Assessment of the key components of Public procurement entities involvement in facilitating contractors' Environmental, Social, and Governance (ESG) practices

Key components of Public procurement entities involvement in facilitating (ESG) practices	Mean	Std. Deviation
Clarity of ESG guidelines provided by public procurement entities during the bidding process	3.08	1.132
Monitoring and evaluation of contractors' ESG performance by public procurement entities	3.13	1.077
Incentives offered by public procurement entities for contractors demonstrating ESG compliance	2.94	1.129
Availability of training and capacity-building programs on ESG principles from procurement entities	2.96	1.113
Collaboration between public procurement entities and contractors to enhance ESG implementation	3.04	1.182
To what extent do you agree with the statement: 'Our organization has received commendation for its Environmental, Social, and Governance (ESG) performance in the past?'	2.96	1.115
Group Mean for the Key Components of Public Procurement Entities' Involvement	**3.02**	

From table 3 above, the analysis of public procurement entities' involvement for contractors' ESG practices reveals that monitoring and evaluation of contractors' ESG performance (mean = 3.13) is seen as an area of moderate importance. Procurement officers seem to recognize the need for

systematic tracking of ESG compliance during the execution of contracts. This is in line with the findings of Stroehle (2023), who emphasizes the necessity of monitoring ESG performance to ensure that contractors adhere to agreed-upon sustainability standards. However, support measures such as incentives for ESG compliance (mean = 2.94) and availability of training and capacity-building programs (mean = 2.96) scored lower, suggesting that public procurement entities are not providing adequate incentives or support for contractors to improve their ESG performance. This aligns with the findings of Wang *et al*. (2019), which highlighted that, although monitoring is in place, there is often a lack of meaningful incentives or capacity-building initiatives to foster long-term ESG improvements among contractors.

This document presents the analysis of Variance (ANOVA), the ANOVA analysis compares differences across demographic groups, particularly education levels.

Table 4: ANOVA Summary Table

Source of Variation	Sum of Squares	df	Mean Square	F-Statistic	p-value
Between Groups (Education Level)	12.35	4	3.09	3.65	0.009
Within Groups	136.74	137	0.999		
Total	149.09	141			

Table 5: Post-Hoc Tests (Tukey's HSD)

Comparison	Mean Difference	p-value	Interpretation
MSc vs. OND/HND	0.45	0.02	Significant difference. MSc contractors have higher ESG awareness
PhD vs. BSc/B.Tech	0.30	0.08	Not significance; Minor difference
MSc vs. BSc/B.Tech	0.34	0.03	Significant difference. MSc contractors have higher ESG Awareness

The analysis of variance (ANOVA) results presented in Table 4.5 indicate that there is a statistically significant difference in ESG awareness among contractors based on their education levels ($F = 3.65$, $p = 0.009$). This finding implies that contractors' educational qualifications have an impact on their level of awareness regarding Environmental, Social, and Governance (ESG) practices. The between-groups variance (Sum of Squares = 12.35) accounts for a meaningful portion of the total variance, highlighting education as a contributing factor to differences in ESG awareness.

The within-groups variance, with a Sum of Squares of 136.74 and Mean Square of 0.999, shows that individual differences within each educational category also exist but are smaller compared to

differences between the groups. The significant p-value (0.009) confirms that these observed differences are unlikely to be due to chance and warrant further exploration.

4.0 Conclusion

This study concludes that contractors in Nigeria possess a moderate level of awareness of Environmental, Social, and Governance (ESG) performance indicators, with notable recognition of key aspects such as environmental compliance and employee development. However, there remain gaps in full engagement with all ESG components, indicating the need for greater emphasis on certifications and governance practices.

Public Procuring entities contribute moderately to facilitating contractors' ESG practices, particularly through monitoring and evaluation. Nevertheless, their support could be significantly strengthened by enhancing incentive schemes and providing more comprehensive training programs.

Furthermore, education level plays a critical role in ESG awareness, highlighting the importance of capacity-building initiatives to elevate contractors' understanding and implementation of ESG principles.

Overall, while progress has been made, more focused efforts by both contractors and public procuring entities are essential to achieve effective and sustained ESG compliance in Nigeria's contracting sector.

4.1 Recommendations

Based on the findings of this study, several recommendations can be made to improve contractors' awareness and implementation of Environmental, Social, and Governance (ESG) principles, as well as to enhance the support provided by public procurement entities:

i. Public Procuring entities should strengthen their support by providing more tangible incentives and expanding capacity-building initiatives. Since monitoring and evaluation were rated moderately effective but incentives scored lower (mean = 2.94), introducing clear reward systems for contractors who demonstrate strong ESG compliance will motivate better alignment with ESG standards. Capacity-building programs, including workshops and training, should target contractors with lower educational qualifications to improve their understanding and implementation of ESG principles.

ii. Given that contractors with higher academic qualifications (especially MSc holders) showed significantly greater ESG awareness, procurement entities need to create tailored

training programs focused on contractors with OND/HND qualifications. These programs should cover practical ESG topics such as environmental management, social responsibility, and governance, delivered through diverse learning methods to bridge knowledge gaps and ensure continuous ESG education.

iii. Although monitoring and evaluation received relatively higher appreciation (mean = 3.13), the impact remains moderate. Procuring entities should adopt more rigorous and systematic monitoring approaches, including regular audits, real-time ESG reporting, and clear benchmarks for compliance. This will ensure contractors are held accountable and allow for continuous improvement in ESG practices.

iv. Procurement entities should facilitate platforms for enhanced collaboration between themselves and contractors, such as industry forums and ESG-focused events. This will encourage the exchange of best practices and foster a collective commitment to ESG principles, improving adoption rates and driving sustained improvements across the sector.

v. Future studies should examine how contractors' organizational size impacts their ESG implementation

References

Agyemang, G. A., & Ansong, A. (2017). The effects of inclusive procurement policies on organizational performance in the construction industry. International Journal of Procurement and Organizational Performance, 10(1), 45-58.

Amann, W., *et al*. (2014). Public procurement and social inclusivity: Embedding workplace equity in public contracts. Journal of Public Procurement and Social Justice, 8(2), 67-88.

Ambe, I. M., & Badenhorst-Weiss, J. A. (2012). Public procurement in South Africa: The influence of governance structures and legislation. Journal of Public Procurement, 12(3),

Auriol, E., & Straub, S. (2011). E-procurement and the reduction of procurement costs: A study of the public sector in developing countries. Public Finance Review, 39(3), 323-358.

Brammer, S., & Walker, H. (2011). Sustainable procurement in the UK public sector. Supply Chain Management: An International Journal, 16(1), 50-60.

Bridges, C. M., & Wilhelm, W. M. (2008). Going green: The competitive advantage of sustainable procurement in the supply chain. International Journal of Logistics Management, 19(3), 295-309.

Carter, C. R., & Rogers, D. S. (2008). A framework of sustainable supply chain management: Moving toward new theory. International Journal of Physical Distribution & Logistics Management, 38(5), 360-387.

Fisman, R., & Svensson, J. (2007). Are corruption and tax evasion the same? Public Finance Review, 35(3), 398-425.
Ghosh, R., *et al*. (2018). Socially responsible business practices and their impact on corporate governance. Corporate Social Responsibility and Environmental Management, 25(1), 1-9. https://doi.org/10.1002/csr.1403
Hammond, G., & O'Brien, M. (2023). The green business revolution. Journal of Business Research, 143, 319-328.
Hammond, L., & O'Brien, M. (2023). Enhancing contractor ESG performance in procurement. Sustainable Procurement Journal, 4(1), 12-32.
Halme, M., *et al*. (2016). Sustainability in corporate strategy: A systematic review. Journal of Business Ethics, 151(2), 307-321.
Jones, T., *et al*. (2020). Low-carbon procurement in global supply chains. Journal of Environmental Management, 270, 110934.
Kim, S., *et al*. (2018). Assessing corporate environmental performance using ESG metrics. Journal of Environmental Management, 218, 90-98.
Kim, S., *et al*. (2018). Sustainability metrics for public procurement. Sustainability, 10(11),
Kolk, A., & Pinkse, J. (2008). Business and environmental management: A systematic review of the literature. Journal of Business Ethics, 78(4), 439-453. https://doi.org/10.1007/s10551-007-9632-4
Lee, M., & Roberts, C. (2022). Corporate climate commitments and governance. Journal of Business Ethics, 158(1), 55-73.
Lee, S., & Roberts, T. (2022). ESG frameworks in public procurement. Public Procurement Review, 45(6), 134-145.
Linton, J. D., Klassen, R. D., & Jayaraman, V. (2007). Sustainable supply chains: An introduction. Journal of Operations Management, 25(6), 1075-1082.
Martínez-Conesa, I., Palacios-Manzano, M., & Martínez-López, F. J. (2020). Sustainability in public procurement: A systematic review of the literature. Journal of Cleaner Production, 276, 124110.
McCrudden, C. (2007). Buying social justice: Equality, government procurement, and legal change. Oxford University Press.
Murray, L. J., & Kotzé, L. J. (2019). The role of procurement in addressing climate change. International Journal of Environmental Science and Technology, 16(2), 605-618.
OECD. (2020). Public procurement for innovation: Good practices and strategies. OECD Publishing.
OECD. (2021). E-Procurement and corruption prevention: Insights and practices in Latin America. OECD Publishing.
OECD. (2022). The role of e-procurement in transparency and accountability. OECD Publishing.
OECD. (2022). Public procurement and social inclusion: Global practices and challenges. OECD Publishing.
Proxy-Voting Insights. (2023). Mitigating greenwashing risks in procurement. ESG Insights Quarterly, 5(2), 22-29.

Søreide, T. (2014). Corruption and governance in public procurement: The role of transparency. World Bank Policy Research Working Paper, 6975, 14-32.
Stroehle, J. (2023). Integrating climate resilience into procurement frameworks. International Journal of Sustainable Procurement, 5(3), 185-201.
Stroehle, J. (2023). E-procurement and its effect on governance in African nations. Public Procurement Journal, 11(2), 187-204.
Sweeney, E. (2019). Corporate Social Responsibility in public procurement: Exploring the role of environmental, social, and governance considerations. Public Administration Review, 79(4), 520-531.
Transparency International. (2020). E-governance and anti-corruption: Best practices from Eastern Europe. Transparency International Annual Report.
United Nations Office on Drugs and Crime (UNODC). (2021). The United Nations Convention Against Corruption (UNCAC) and public procurement. UNODC Global Report.
Walker, H., & Brammer, S. (2009). Sustainable procurement in the public sector: An international perspective. International Journal of Public Sector Management, 22(6), 525-539.
Wharton ESG Analytics Lab. (2023). Procurement strategies for environmental sustainability. Wharton ESG Annual Report.
Agyemang, G. A., & Ansong, A. (2017). The effects of inclusive procurement policies on organizational performance in the construction industry. International Journal of Procurement and Organizational Performance, 10(1), 45-58.
Auriol, E., & Straub, S. (2011). E-procurement and the reduction of procurement costs: A study of the public sector in developing countries. Public Finance Review, 39(3), 323-358.
Brammer, S., & Walker, H. (2011). Sustainable procurement in the UK public sector. Supply Chain Management: An International Journal, 16(1), 50-60.
Bridges, C. M., & Wilhelm, W. M. (2008). Going green: The competitive advantage of sustainable procurement in the supply chain. International Journal of Logistics Management, 19(3), 295-309. https://doi.org/10.1108/09574090810899759
Carter, C. R., & Rogers, D. S. (2008). A framework of sustainable supply chain management: Moving toward new theory. International Journal of Physical Distribution & Logistics Management, 38(5), 360-387. https://doi.org/10.1108/09600030810882816
Kolk, A., & Pinkse, J. (2008). Business and environmental management: A systematic review of the literature. Journal of Business Ethics, 78(4), 439-453.
OECD. (2021). E-Procurement and corruption prevention: Insights and practices in Latin America. OECD Publishing.
Søreide, T. (2014). Corruption and governance in public procurement: The role of transparency. World Bank Policy Research Working Paper, 6975, 14-32.
Preuss, L. (2009). Addressing the challenges of ESG performance in procurement. International Journal of Procurement Management, 2(4), 18-35.
Stroehle, J. (2023). Integrating climate resilience into procurement frameworks. International Journal of Sustainable Procurement, 5(3),

Stroehle, J. (2023). E-procurement and its effect on governance in African nations. Public Procurement Journal, 11(2),

Sweeney, E. (2019). Corporate Social Responsibility in public procurement: Exploring the role of environmental, social, and governance considerations. Public Administration Review, 79(4), 520-531.

United Nations Office on Drugs and Crime (UNODC). (2021). The United Nations Convention Against Corruption (UNCAC) and public procurement. UNODC Global Report.

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