From Policy to Practice: A Data-Driven Green Procurement Model for Enhancing Environmental Performance in East Lombok's Public Sector

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Abstract:

Green procurement has become a significant tool for governments aiming to reduce environmental consequences via ethical purchasing practices. Notwithstanding regulatory achievements, the implementation of green procurement principles into successful operational processes continues to pose a problem, especially within regional governments of poor nations. In East Lombok Regency, where environmental degradation persists due to unsustainable procurement choices, there is an urgent necessity for pragmatic models that connect policy with execution. Recent technology advancements present new opportunity to integrate data analytics into procurement systems, potentially improving transparency and environmental results. This study seeks to develop a data-driven green procurement approach that enhances environmental performance in the public sector of East Lombok. The paper examines the disparity between current policy frameworks and their ineffective implementation, frequently attributed to insufficient data application in procurement decisions. The study population comprises procurement officers, regional government entities, and registered suppliers within East Lombok's public sector, utilizing a purposive sample of 70 respondents who represent key stakeholders. A mixed-methods approach was utilized, integrating qualitative data from interviews and focus groups with quantitative validation via structural equation modeling (SEM). The paper presents an innovative incorporation of data analytics into green procurement procedures, facilitating evidence-based decision-making and real-time monitoring of environmental performance metrics. The findings indicate that the suggested paradigm markedly enhances procurement transparency, supplier adherence, and quantifiable environmental results. The study indicates that data-driven green procurement is a feasible and scalable approach for regional governments seeking to enhance their environmental governance and sustainability outcomes.

Keywords:

Data-driven procurement, Green procurement, Environmental performance, Public sector, East Lombok.