Government Management Strategies as Determinants of Waste Reduction Efficiency in Malabon City: Developing a Comprehensive Policy Framework

Ma. Shella S. Cabrera
https://orcid.org/ 0009-0000-4527-509x
shella.msem@gmail.com
City of Malabon, Manila, Philippines
Philippine Christian University Manila, Philippines

Abstract

Solid waste management continues to be a pressing concern among highly urbanized cities, where rapid population growth, increased consumption patterns, and urban expansion contribute to escalating volumes of municipal waste. Local government units are challenged to develop sustainable and efficient waste management systems that address environmental protection, public health, and resource conservation. In this context, governance management strategies play a crucial role in shaping policies, mobilizing resources, fostering stakeholder participation, and ensuring effective implementation of waste management programs. Despite the recognized importance of governance, its direct influence on waste reduction efficiency remains inadequately explored in local settings. This study examined the effectiveness of governance management strategies in Malabon City and determined their relationship with waste reduction efficiency as a basis for developing a comprehensive policy framework for sustainable solid waste management. Specifically, governance management strategies were assessed in terms of policy formulation and implementation, community engagement and awareness, resource allocation and infrastructure development, monitoring and evaluation systems, and stakeholder collaboration. Waste reduction efficiency was evaluated through waste segregation compliance, recycling rates, reduction in waste generation, public participation, and environmental impact. Employing a quantitative-descriptive and correlational research design, data were gathered from key stakeholders involved in the city's solid waste management system and analyzed using descriptive statistics and correlation techniques. The findings revealed that governance management strategies were generally effective, with community engagement and awareness receiving the highest mean rating ($M = 3.12$). Likewise, waste reduction efficiency indicators were rated as generally efficient. However, the correlation analysis showed no significant relationship between governance management strategies and waste reduction efficiency ($r = -0.027$, $p = 0.738$). These results suggest that governance mechanisms alone may not be sufficient to achieve desired waste reduction outcomes. Factors such as implementation capacity, infrastructure adequacy, resource availability, monitoring effectiveness, and citizen behavior may significantly influence overall performance. The study recommends the adoption of a systems-based, evidence-driven policy framework to strengthen local solid waste management and promote sustainable urban environmental governance.

Keywords: Solid Waste Management; Governance Management Strategies; Waste Reduction Efficiency; Urban Environmental Governance; Policy Framework.