



Green Accountability Practices in Waste Management Enterprises Through Carbon Cost Recognition and Community Environmental Engagement

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ABSTRACT

Growing environmental challenges, waste generation, and rising demands for sustainable development have encouraged waste management enterprises to strengthen environmental accountability practices. Green accountability is an approach integrating environmental responsibility into organizational decision-making, reporting systems, and stakeholder relationships. In this context, carbon cost recognition and community environmental engagement are mechanisms enhancing transparency and sustainability performance. Study analyzes green accountability through carbon cost recognition and community environmental engagement using Systematic Literature Review with PRISMA 2020 framework. Literature collected from Scopus, Web of Science, ScienceDirect, SpringerLink, Emerald Insight, and Google Scholar. From 245 articles, 10 peer-reviewed studies (2015–2025) were selected for analysis. Findings show carbon cost recognition improves transparency, performance measurement, and decision-making, while community engagement strengthens trust, legitimacy, and sustainability initiatives. Integration of accounting and stakeholder engagement enhances accountability waste management enterprises.

INTRODUCTION

Climate change, increasing waste generation, and the growing demand for sustainable development have encouraged waste management enterprises to focus not only on operational efficiency but also on comprehensive environmental accountability (Burritt & Christ, 2016; Schaltegger et al., 2022). Waste management enterprises play a strategic role in mitigating environmental impacts through waste collection, treatment, recycling, and resource recovery activities that support the transition toward a circular economy (Latifah & Soewarno, 2023). In this context, green accountability has emerged as a critical mechanism that enables organizations to demonstrate responsibility for the environmental consequences of their business operations to various stakeholders (Gonzalez & Peña-Vinces, 2023; Afiah et al., 2024). Green accountability encompasses not only environmental performance reporting but also the integration of environmental considerations into corporate decision-making processes and accounting systems (Burritt & Schaltegger, 2010).

The development of environmental accounting literature indicates that environmental cost recognition constitutes a fundamental element in promoting transparency and accountability regarding ecological impacts generated by business activities (Burritt & Schaltegger, 2010; Mukwarami & Van der Poll, 2024). More recently, carbon cost recognition has gained significant attention as governments and organizations seek to reduce greenhouse gas emissions and achieve net-zero emission targets (Chen et al., 2019; Gonzalez & Peña-Vinces, 2023). Carbon cost recognition enables firms to identify, measure, and disclose costs associated with carbon emissions, thereby incorporating previously hidden environmental costs into financial and sustainability reporting systems (Chen et al., 2019). Consequently, carbon cost recognition serves as a managerial tool that supports environmental performance evaluation while enhancing organizational legitimacy and stakeholder trust (Mukwarami & Van der Poll, 2024).

In addition to environmental accounting practices, community environmental engagement has become an essential component in achieving sustainable waste management outcomes (United Nations Environment Programme [UNEP], 2023). Community environmental engagement refers to the active participation of local communities in waste reduction initiatives, waste segregation programs, environmental education, recycling activities, and monitoring of environmental practices implemented by waste management enterprises (Maneha et al., 2025). Strong collaboration between enterprises and communities can create mutual benefits, where organizations gain social support and legitimacy while communities experience improved environmental quality and economic opportunities (Freeman et al., 2020). Therefore, community environmental engagement can be viewed as a crucial dimension of green accountability that strengthens the social aspect of environmental governance.

Despite increasing awareness of sustainability issues, numerous environmental pollution cases associated with waste management activities indicate a persistent gap between sustainability commitments and actual accountability practices (World Bank, 2023; OECD, 2023). Many waste management enterprises continue to prioritize technical and operational aspects

while failing to systematically integrate carbon costs into accounting systems or actively involve communities in environmental decision-making processes (Mustika et al., 2023; Noviriani et al., 2023). As a result, environmental disclosures often do not fully reflect the actual environmental costs incurred by organizations and remain insufficient to address public demands for transparency regarding environmental impacts (Mustika et al., 2023). This situation suggests that green accountability practices within the waste management sector remain fragmented and have not yet reached their full potential in supporting sustainable development objectives.

The urgency of this study stems from the growing need for environmental accountability models that effectively integrate carbon cost recognition and community environmental engagement within sustainable waste management practices (Mukwarami & Van der Poll, 2024). Although sustainability regulations and reporting standards increasingly encourage organizations to enhance environmental transparency, significant challenges remain regarding carbon cost measurement, disclosure, and community participation in environmental governance (Latifah & Soewarno, 2023; Hidayat et al., 2025). Addressing these challenges is essential because waste management enterprises are expected to contribute substantially to climate mitigation efforts while maintaining stakeholder trust and social legitimacy. Therefore, examining the relationship between carbon cost recognition, community environmental engagement, and green accountability is both theoretically and practically important.

Previous studies have demonstrated that environmental accounting practices positively influence sustainability performance through improved waste management strategies (Latifah & Soewarno, 2023). Mustika et al. (2023) found that environmental cost accounting contributes to operational efficiency and environmental impact control within waste management organizations. Similarly, Noviriani et al. (2023) reported that green accounting implementation in waste management primarily focuses on identifying and measuring environmental costs, whereas public accountability and disclosure aspects remain underdeveloped. Furthermore, Maneha et al. (2025) emphasized that enhancing community capacity in environmental cost awareness can strengthen the sustainability of community-based waste management initiatives. Nevertheless, limited research has specifically examined how carbon cost recognition and community environmental engagement interact to shape green accountability practices within waste management enterprises, thereby creating a significant research gap that warrants further investigation.

Based on the foregoing discussion, this study aims to analyze green accountability practices in waste management enterprises through the integration of carbon cost recognition and community environmental engagement. The study seeks to provide a deeper understanding of how environmental accounting mechanisms and stakeholder participation contribute to transparent, accountable, and sustainable waste management practices. Furthermore, the findings are expected to enrich the literature on environmental management accounting and offer practical recommendations for waste

management enterprises seeking to improve environmental performance, stakeholder relationships, and long-term sustainability.

LITERATURE REVIEW

Green Accountability in Waste Management Enterprises

Green accountability has emerged as a critical concept in addressing increasing environmental challenges and the growing demand for sustainable development in waste management enterprises. It refers to the integration of environmental responsibility into organizational accounting systems, decision-making processes, and reporting mechanisms. Empirical evidence shows that environmental accounting practices significantly improve sustainability performance through more effective waste management strategies (Latifah & Soewarno, 2023). Similarly, environmental accounting is recognized as a strategic instrument that strengthens corporate environmental accountability and supports long-term sustainability objectives (Burritt & Christ, 2016). In addition, green accounting systems contribute to improved transparency and environmental disclosure practices, which are essential for organizational legitimacy and stakeholder trust (Gonzalez & Peña-Vinces, 2023).

Carbon Cost Recognition in Environmental Management Accounting

Carbon cost recognition plays a central role in strengthening environmental accountability by enabling organizations to identify, measure, and incorporate carbon-related costs into their accounting systems. Carbon accounting provides a reliable framework for assessing environmental impacts and improving managerial decision-making processes (Chen et al., 2019). In waste management enterprises, environmental cost recognition has been shown to enhance operational efficiency and strengthen environmental control mechanisms (Mustika et al., 2023). Furthermore, environmental management accounting contributes significantly to sustainable corporate governance and accountability by integrating environmental costs into strategic decision-making processes (Afiah et al., 2024). Schaltegger et al. (2022) further emphasize that environmental cost measurement and disclosure are essential requirements for achieving sustainability goals and organizational legitimacy. Collectively, these findings indicate that carbon cost recognition is not merely a reporting tool but a fundamental mechanism for strengthening green accountability practices.

Community Environmental Engagement in Waste Management

Community environmental engagement is an essential dimension of green accountability, particularly in the waste management sector where local participation directly influences environmental outcomes. Active involvement of communities in waste segregation, recycling programs, and environmental awareness initiatives strengthens sustainability performance and accountability mechanisms. Research indicates that community engagement significantly enhances sustainability initiatives and environmental accountability in waste management systems (Maneha et al., 2025). In addition, environmental governance is more effective when supported by multi-stakeholder participation,

including local communities as key actors in environmental management processes (Afiah et al., 2024). This demonstrates that environmental accountability is not solely an internal organizational function but also depends on external stakeholder involvement to ensure legitimacy and effectiveness.

Environmental Management Accounting and Transparency

Environmental Management Accounting (EMA) serves as the foundational framework for integrating environmental costs into organizational accounting systems. EMA supports environmental accountability and enables sustainable service delivery in various organizational contexts (Mukwarami & Van der Poll, 2024). While green accounting practices have improved environmental reporting, their contribution to public accountability remains limited in many cases (Noviriani et al., 2023). This gap indicates that although organizations increasingly adopt environmental reporting mechanisms, the transparency and accessibility of environmental accountability information still require further improvement. EMA thus plays a critical role in bridging the gap between environmental performance measurement and stakeholder communication.

Integration of Carbon Cost Recognition and Community Engagement

The integration of carbon cost recognition and community environmental engagement is essential for establishing comprehensive green accountability in waste management enterprises. Carbon cost recognition provides a technical foundation for measuring and reporting environmental impacts, while community engagement strengthens social legitimacy and stakeholder trust. Environmental accounting practices improve sustainability performance when supported by structured environmental governance systems (Latifah & Soewarno, 2023). Moreover, environmental management accounting and carbon measurement systems contribute to cleaner production and enhanced organizational legitimacy (Schaltegger et al., 2022). Therefore, the synergy between accounting-based mechanisms and community participation creates a more holistic approach to environmental accountability, ensuring both technical accuracy and social acceptance.

METHODOLOGY

Research Design

This study employed a qualitative research approach using the Systematic Literature Review (SLR) method to investigate the role of carbon cost recognition and community environmental engagement in strengthening green accountability practices within waste management enterprises. The SLR method was selected because it provides a rigorous, transparent, and systematic procedure for identifying, evaluating, and synthesizing existing scientific evidence related to a particular research topic (Tranfield et al., 2003). Furthermore, SLR enables researchers to identify research trends, theoretical developments, and knowledge gaps while generating a comprehensive understanding of a phenomenon based on previous studies (Snyder, 2019). Through this approach, the present study seeks to develop a conceptual

understanding of how environmental accounting practices and stakeholder participation contribute to sustainable accountability in waste management organizations.

Review Protocol

The review process followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines proposed by Page et al. (2021). PRISMA is widely recognized as an international standard for conducting systematic reviews because it ensures transparency and consistency throughout the literature selection process. The protocol consists of four main stages, namely identification, screening, eligibility assessment, and inclusion. By adopting the PRISMA framework, this study ensured that the selected literature was relevant, reliable, and aligned with the research objectives.

Data Sources and Search Strategy

The literature search was conducted using several internationally recognized academic databases, including Scopus, Web of Science, ScienceDirect, SpringerLink, Emerald Insight, and Google Scholar. These databases were selected because they contain high-quality peer-reviewed publications in the fields of sustainability, environmental management, accounting, and waste management. The search process was carried out between January and March 2026 using combinations of keywords such as “green accountability,” “environmental accountability,” “carbon cost recognition,” “carbon accounting,” “environmental management accounting,” “community environmental engagement,” “stakeholder participation,” “waste management enterprises,” and “sustainable waste management.” Boolean operators such as AND and OR were utilized to improve the precision and relevance of the search results. To ensure the contemporary relevance of the findings, only studies published between 2015 and 2025 were considered.

Article Selection Process

The article selection process was conducted systematically according to the PRISMA 2020 framework. During the identification stage, the initial search across all selected databases produced a total of 245 articles, consisting of 85 articles from Scopus, 42 articles from Web of Science, 51 articles from ScienceDirect, 28 articles from SpringerLink, 19 articles from Emerald Insight, and 20 articles from Google Scholar. Subsequently, all retrieved articles were exported and examined for duplication. A total of 55 duplicate articles were identified and removed, leaving 190 articles for further review.

The screening stage involved examining the titles, abstracts, and keywords of the remaining articles. At this stage, 126 articles were excluded because they did not meet the predefined inclusion criteria. Specifically, 92 articles were excluded due to their lack of relevance to the research topic, 16 articles were excluded because they were not written in English, and 18 articles were excluded because they consisted of conference abstracts, editorials, or other non-peer-reviewed publications. As a result, 64 articles remained for full-text assessment.

During the eligibility stage, the full texts of the 64 remaining articles were thoroughly reviewed to determine their suitability for inclusion in the study. A total of 54 articles were excluded for several reasons. Fifteen articles did not adequately discuss carbon cost recognition or carbon accounting practices, eighteen articles lacked substantial discussion of community environmental engagement, twelve articles focused on industries unrelated to waste management enterprises, and nine articles were excluded because their full texts were inaccessible. Following this assessment, 10 articles met all inclusion criteria and were selected for the final review and analysis.

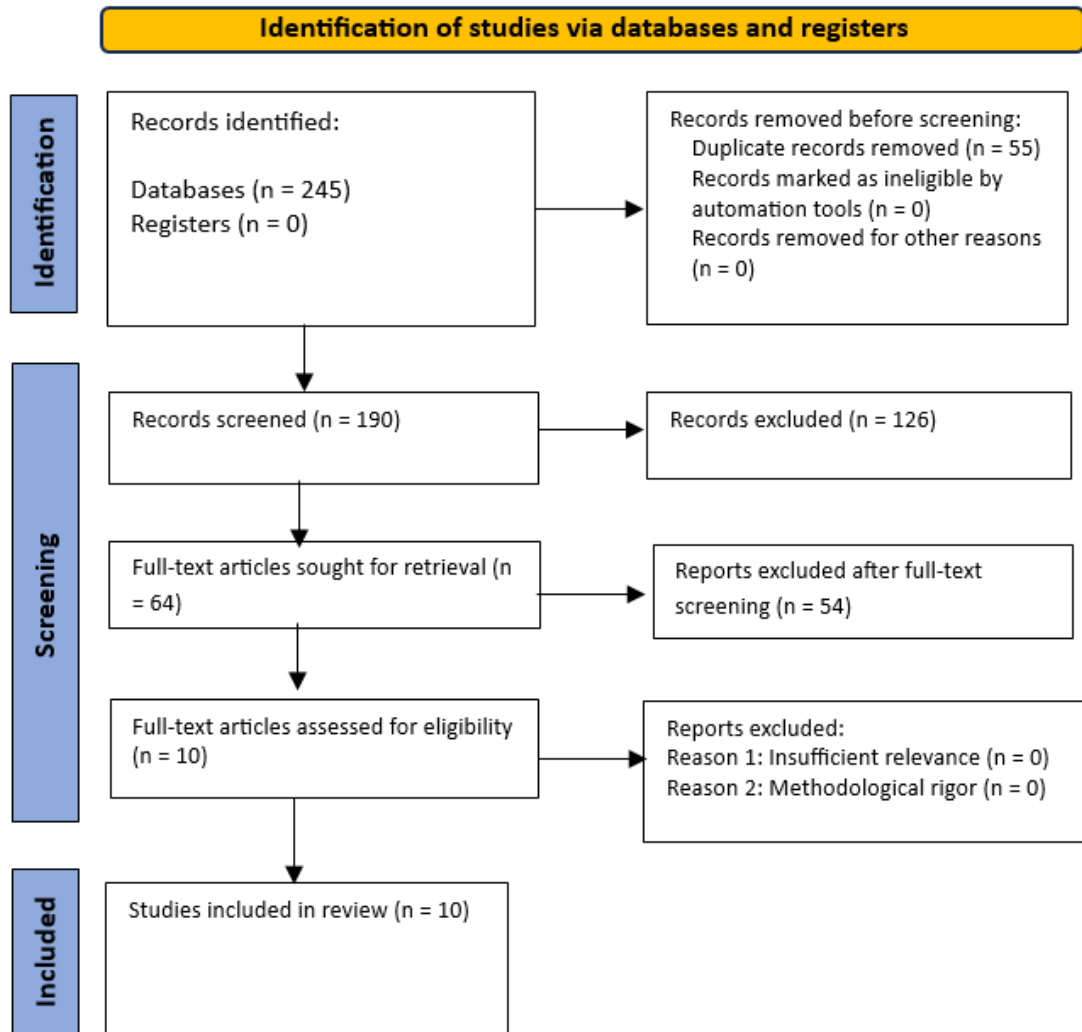


Figure 1. PRISMA Flowchart

Inclusion and Exclusion Criteria

To ensure the quality and relevance of the selected literature, this study established clear inclusion and exclusion criteria. Articles were included if they were published in peer-reviewed journals between 2015 and 2025, written in English, available in full-text format, and discussed at least one of the following topics: green accountability, carbon cost recognition, environmental management accounting, community environmental engagement, or sustainable waste management. Conversely, articles were excluded if they consisted of

conference proceedings, editorials, book reviews, duplicate publications, non-English studies, or publications that did not directly address the objectives of the present research. The application of these criteria ensured that only high-quality and relevant studies were included in the final analysis.

Data Analysis

The selected articles were analyzed using thematic content analysis, a method that enables researchers to identify, organize, and interpret recurring patterns and themes within qualitative data (Braun & Clarke, 2006). The analysis process focused on three principal themes derived from the objectives of the study. The first theme concerned carbon cost recognition practices, including the identification, measurement, and disclosure of carbon-related environmental costs. The second theme examined community environmental engagement mechanisms, including stakeholder participation, environmental awareness programs, and community involvement in waste management initiatives. The third theme explored green accountability practices implemented by waste management enterprises, particularly in relation to environmental transparency, sustainability reporting, and organizational responsibility.

The findings obtained from the selected studies were subsequently synthesized to identify conceptual relationships among these themes, reveal emerging trends in the literature, and determine existing research gaps. This synthesis process ultimately served as the basis for developing a conceptual framework explaining how carbon cost recognition and community environmental engagement contribute to strengthening green accountability practices in waste management enterprises.

Validity and Reliability

To enhance the trustworthiness of the review findings, this study adhered to the principles of transparency, consistency, and replicability recommended for systematic literature reviews (Tranfield et al., 2003; Snyder, 2019). The adoption of the PRISMA 2020 protocol, the use of predefined inclusion and exclusion criteria, and the application of thematic content analysis collectively contributed to the reliability and validity of the research process. Furthermore, all selected articles were evaluated systematically to minimize selection bias and ensure that the conclusions drawn were supported by robust scientific evidence.

RESULT AND DISCUSSION

The systematic literature review was conducted following the PRISMA 2020 guidelines to identify relevant studies on green accountability, carbon cost recognition, and community environmental engagement in waste management enterprises. The initial search yielded 245 articles from six academic databases. After removing duplicates and applying the inclusion and exclusion criteria, 10 peer-reviewed journal articles were selected for final analysis.

The selected studies were published between 2016 and 2025 and originated from various countries, including Indonesia, Australia, South Africa, Germany, Denmark, and Peru. The articles employed diverse research methods, such as quantitative, qualitative, conceptual, and literature review approaches,

providing comprehensive insights into environmental accounting, carbon cost recognition, and stakeholder engagement practices.

Table 1 presents the characteristics of the 10 selected articles, including the authors, year of publication, research methods, research focus, and main findings that form the basis for the subsequent analysis and discussion.

Table 1. Literature review results

No.	Author(s)	Year	Country	Method	Research Focus	Main Findings
1	Latifah & Soewarno	2023	Indonesia	Quantitative	Environmental accounting and waste management sustainability	Environmental accounting practices significantly improve sustainability performance through effective waste management strategies.
2	Mustika, Oktavendi, & Affan	2023	Indonesia	Qualitative Case Study	Environmental cost accounting in waste management	Environmental cost recognition improves operational efficiency and environmental control mechanisms.
3	Mukwarami & Van der Poll	2024	South Africa	Literature Review	Environmental management accounting practices	Environmental management accounting supports environmental accountability and sustainable service delivery.
4	Maneha et al.	2025	Indonesia	Community-Based Research	Environmental cost awareness and waste banks	Community engagement strengthens sustainability initiatives and environmental accountability.

5	Gonzalez & Peña-Vinces	2023	Peru	Exploratory Study	Green accounting systems	Green accounting enhances transparency and environmental disclosure practices.
6	Chen, Christensen, & Boldrin	2019	Denmark	Framework Development	Carbon emission accounting in waste management	Carbon accounting provides a reliable basis for measuring environmental impacts and improving environmental decision-making.
7	Burritt & Christ	2016	Australia	Conceptual Study	Environmental accounting and sustainability	Environmental accounting serves as a strategic tool for corporate environmental accountability.
8	Afiah et al.	2024	Indonesia	Conceptual Analysis	Environmental management accounting and sustainability	Environmental management accounting contributes to sustainable corporate governance and accountability.
9	Noviriani, Fitriana, & Wana	2023	Indonesia	Qualitative Study	Green accounting implementation	Green accounting practices improve environmental reporting but remain limited in public accountability dimensions.

10	Schaltegger, Burritt, & Petersen	2022	Germany	Conceptual Review	Environmental management accounting for cleaner production	Environmental cost measurement and disclosure are essential for achieving sustainability objectives and organizational legitimacy.
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The preliminary analysis indicates that all selected studies emphasize the importance of integrating environmental considerations into organizational accounting systems. Most studies highlight that environmental accounting and carbon accounting play significant roles in improving transparency, environmental cost measurement, and the quality of organizational decision-making (Burritt & Christ, 2016; Chen et al., 2019; Mukwarami & Van der Poll, 2024). In addition, several studies emphasize that community environmental engagement serves as a supporting factor that strengthens social legitimacy and enhances the effectiveness of sustainability initiatives (Latifah & Soewarno, 2023; Maneha et al., 2025).

Overall, the findings from the ten selected studies suggest that effective green accountability practices require a combination of accurate carbon cost recognition, integrated environmental management accounting systems, and active community participation in environmental management processes. These findings provide the foundation for further discussion of the relationships among carbon cost recognition, community environmental engagement, and green accountability practices in waste management enterprises.

The thematic analysis of the ten selected studies revealed three major themes that explain how green accountability practices are developed and strengthened within waste management enterprises. These themes include Carbon Cost Recognition Practices, Community Environmental Engagement Mechanisms, and Green Accountability Practices in Waste Management Enterprises. Together, these themes illustrate the interconnected roles of environmental accounting, stakeholder participation, and organizational accountability in achieving sustainable waste management.

Carbon Cost Recognition Practices

Carbon cost recognition emerged as a fundamental component of environmental management accounting and green accountability. The reviewed studies consistently indicate that the identification, measurement, and disclosure of carbon-related costs enable organizations to better understand the environmental impacts of their operations and integrate environmental considerations into managerial decision-making processes (Chen et al., 2019; Mukwarami & Van der Poll, 2024). Carbon accounting practices allow organizations to quantify greenhouse gas emissions and associated

environmental costs, thereby improving transparency and supporting sustainability-oriented strategies (Chen et al., 2019).

Several studies emphasized that environmental cost recognition contributes to more efficient resource allocation and improved environmental performance. Latifah and Soewarno (2023) found that environmental accounting practices positively influence sustainability performance by encouraging more responsible waste management activities. Similarly, Mustika et al. (2023) reported that environmental cost accounting assists waste management organizations in controlling environmental impacts and improving operational efficiency. These findings support the argument that carbon cost recognition should not be viewed merely as a reporting mechanism but also as a strategic management tool that facilitates sustainable business practices.

From the perspective of Environmental Management Accounting Theory, carbon cost recognition enables organizations to internalize environmental externalities that are often ignored in conventional accounting systems (Burritt & Christ, 2016; Schaltegger et al., 2022). By integrating carbon-related costs into organizational accounting systems, companies are better positioned to evaluate environmental risks, improve environmental performance, and respond to increasing stakeholder demands for sustainability information (Afiah et al., 2024; Gonzalez & Peña-Vinces, 2023). Consequently, carbon cost recognition serves as a critical foundation for strengthening green accountability within waste management enterprises.

Community Environmental Engagement Mechanisms

The second theme identified in this review concerns the role of community environmental engagement in supporting sustainable waste management practices. The selected studies demonstrate that environmental accountability extends beyond organizational boundaries and requires active participation from external stakeholders, particularly local communities (Maneha et al., 2025; Freeman et al., 2020). Community involvement contributes to the success of environmental programs through waste segregation, recycling initiatives, environmental education, and monitoring of organizational environmental performance.

Maneha et al. (2025) highlighted that community-based waste management programs become more sustainable when local communities possess sufficient knowledge of environmental costs and environmental accounting practices. Likewise, Latifah and Soewarno (2023) emphasized that stakeholder participation strengthens environmental initiatives and improves sustainability outcomes. These findings indicate that community engagement functions not only as a social support mechanism but also as a means of enhancing organizational accountability and environmental legitimacy.

The importance of community engagement can be explained through Stakeholder Theory, which argues that organizations must address the expectations and interests of various stakeholder groups to achieve long-term success and legitimacy (Freeman et al., 2020). In the context of waste management enterprises, local communities represent key stakeholders directly affected by

environmental decisions and operational activities. Therefore, involving communities in environmental management processes enhances trust, improves communication, and increases public acceptance of organizational sustainability initiatives (Gonzalez & Peña-Vinces, 2023; Noviriani et al., 2023). As a result, community environmental engagement becomes an essential mechanism for supporting green accountability practices.

Green Accountability Practices in Waste Management Enterprises

The final theme concerns the implementation of green accountability practices as an integrated approach that combines environmental accounting, carbon cost recognition, and stakeholder engagement. The reviewed studies suggest that green accountability involves more than environmental reporting; it requires organizations to demonstrate responsibility for the environmental consequences of their activities through transparent measurement, disclosure, and stakeholder communication processes (Gonzalez & Peña-Vinces, 2023; Noviriani et al., 2023).

Several studies indicate that organizations adopting environmental management accounting systems tend to exhibit higher levels of environmental transparency and sustainability performance (Afiah et al., 2024; Mukwarami & Van der Poll, 2024). Furthermore, Schaltegger et al. (2022) argued that environmental cost measurement and disclosure provide a basis for cleaner production strategies and continuous environmental improvement. Similarly, Burritt and Christ (2016) emphasized that environmental accounting has evolved into a strategic instrument for enhancing corporate accountability in response to increasing environmental challenges.

From the perspective of Legitimacy Theory, organizations seek to align their activities with societal values and expectations to maintain public acceptance and organizational legitimacy (Gonzalez & Peña-Vinces, 2023; Noviriani et al., 2023). Carbon cost recognition enhances the credibility of environmental disclosures by providing measurable evidence of environmental responsibility, while community environmental engagement strengthens social legitimacy through stakeholder participation and collaboration (Maneha et al., 2025; Latifah & Soewarno, 2023). Consequently, effective green accountability practices emerge from the integration of environmental accounting mechanisms and stakeholder engagement strategies.

Overall, the findings of this review suggest that green accountability in waste management enterprises is strengthened through the synergistic interaction between carbon cost recognition and community environmental engagement. Carbon cost recognition provides the technical and informational foundation for environmental accountability, whereas community environmental engagement contributes social legitimacy and stakeholder support. Together, these mechanisms enable waste management enterprises to improve transparency, environmental performance, and long-term sustainability while addressing increasing societal demands for responsible environmental governance.

CONCLUSION AND RECOMMENDATION

This study demonstrates that green accountability in waste management enterprises is strengthened through the integration of carbon cost recognition and community environmental engagement. Carbon cost recognition enables organizations to identify, measure, and disclose environmental costs associated with carbon emissions, thereby improving environmental transparency, accountability, and sustainability-oriented decision-making. By incorporating carbon-related costs into environmental management accounting systems, waste management enterprises can better evaluate environmental impacts, enhance operational efficiency, and support climate mitigation objectives.

The findings also reveal that community environmental engagement plays a vital role in strengthening green accountability. Active participation by local communities through environmental education, waste segregation programs, recycling initiatives, and environmental monitoring contributes to greater stakeholder trust, organizational legitimacy, and sustainability outcomes. Community involvement ensures that environmental accountability extends beyond internal organizational practices and reflects broader societal expectations regarding environmental governance.

Furthermore, the review highlights that effective green accountability practices require a synergistic relationship between environmental accounting mechanisms and stakeholder engagement strategies. Carbon cost recognition provides the technical foundation for environmental accountability, while community environmental engagement contributes social support and legitimacy. Together, these elements enable waste management enterprises to improve environmental performance, transparency, and long-term sustainability in response to increasing environmental and societal challenges.

Based on the findings of this study, waste management enterprises should strengthen the integration of carbon cost recognition into their environmental management accounting systems to improve transparency, environmental performance measurement, and sustainability-oriented decision-making. Organizations are also encouraged to enhance the quality of environmental disclosures by providing more comprehensive information regarding carbon emissions, environmental expenditures, and sustainability initiatives. Furthermore, active community involvement should be promoted through environmental education programs, recycling activities, waste reduction campaigns, and environmental monitoring efforts to strengthen stakeholder trust and social legitimacy. Collaboration among waste management enterprises, government institutions, local communities, and other stakeholders is equally important to support effective environmental governance and sustainable waste management practices. Finally, future research should employ empirical approaches, such as surveys, case studies, or mixed-method designs, to further examine the practical impact of carbon cost recognition and community environmental engagement on organizational sustainability performance and environmental accountability.

FURTHER STUDY

Future research should conduct empirical studies using primary data collection (such as surveys or case studies) to examine how carbon cost recognition and community environmental engagement jointly influence green accountability performance in waste management enterprises, in order to validate and strengthen the conceptual findings from this literature review.

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