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Environmental Management Accounting Practices In Hospital Waste Management: A Legitimacy Theory Perspective

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Abstract

This study aims to analyze the implementation of environmental management accounting in waste management at the Inche Abdoel Moeis Regional General Hospital in Samarinda City. Environmental pollution, particularly hospital waste classified as hazardous and toxic (B3), requires an integrated management system that includes an accounting approach to identify, measure, and report environmental costs. This research adopts a qualitative descriptive method with data collected through interviews, observation, and documentation. The findings reveal that the hospital applies environmental management accounting using the PPOPET approach (Planning, Budgeting, Implementation, Operation, Evaluation, and Follow-Up). However, several challenges remain, such as limited detail in environmental cost allocation and weak internal reporting systems. The hospital's participation in the PROPER program and achievement of a blue rating reflect minimum compliance with environmental standards and a step toward environmental legitimacy. The implementation of environmental management accounting serves as a strategic initiative to enhance decision-making, cost efficiency, and institutional environmental sustainability.

Keywords: Environmental Management Accounting, Waste Management, Hospital, PROPER, PPOPET

1. Introduction

Environmental issues have long been the subject of public discourse and academic inquiry, yet concrete solutions remain elusive. Topics such as ozone layer depletion, deteriorating air quality, climate change, deforestation, and the mismanagement of industrial and hospital waste continue to be pressing concerns. These problems not only threaten ecological stability but also pose serious health risks to society. In recent years, environmental challenges have attracted increasing attention, not only from the public but also from the business sector. For companies, environmental responsibility is now regarded as a fundamental aspect of corporate social responsibility (CSR). Industrial and institutional actors are expected to contribute to environmental protection, particularly mitigating the harmful impacts of production activities.

Hospitals, as essential public service providers, hold significant environmental responsibilities. Hospital waste especially hazardous and toxic waste (B3)—poses considerable threats to both environmental and human health. Such waste includes chemical substances, disinfectants, cytotoxic materials, infectious agents, and even radioactive elements. Improper handling of these materials can lead to widespread environmental contamination. Therefore, waste management in hospitals should not be viewed merely as a technical operation but must be integrated into the broader framework of institutional governance, including financial and managerial accountability systems.

In this context, Environmental Management Accounting (EMA) becomes a vital approach. EMA refers to the process of identifying, collecting, analyzing, and using financial and non-financial information related to an organization's environmental performance and costs. By implementing EMA, hospitals can quantify the financial implications of environmental activities, particularly in waste management. This allows them to monitor expenses, assess the effectiveness of waste control programs, and make data-driven decisions to support environmental sustainability while improving operational efficiency.

Despite the relevance of EMA in hospital operations, its application in Indonesian hospitals remains limited. Many healthcare institutions do not integrate environmental information into their internal reporting systems, leading to

suboptimal strategic decisions. Several barriers hinder the implementation of EMA, including a lack of awareness among management, insufficient training in environmental accounting, and constraints in infrastructure and human resources. These challenges underscore the need for empirical research that explores EMA practices within public hospitals, especially concerning waste management.

RSUD Inche Abdoel Moeis in Samarinda, East Kalimantan, serves as a referral center for various health services and therefore plays a crucial role in environmental stewardship. Given its scope of operations, the hospital generates various types of waste including medical, non-medical, liquid, solid, and gaseous waste all of which must be managed appropriately. The source of hospital waste can generally be categorized into three main groups: (1) human excretion (e.g., sputum, urine, feces, blood), (2) service-related waste (e.g., rinsing solutions, cleaning fluids from medical equipment), and (3) operational support waste (e.g., waste from the kitchen, laundry, transportation units).

According to Siregar (2005), waste generated by hospitals is not limited to liquids but includes a variety of dangerous substances such as cytostatic, reagents, antiseptics, disinfectants, radioactive materials, insecticides, pesticides, and medical gases. These substances not only threaten environmental integrity but also compromise the safety of hospital personnel and the surrounding community. Therefore, hospitals must adopt a structured and accountable waste management system, guided by environmental protection principles and supported by effective accounting frameworks.

EMA offers a systematic way to address these issues. It allows hospitals to integrate environmental considerations into their accounting systems and track the full environmental costs associated with healthcare operations. EMA encourages better decision-making, cost control, and compliance with environmental regulations. Importantly, it also helps hospitals measure their environmental performance, enabling continuous improvement and alignment with national sustainability goals.

Despite its potential benefits, EMA is still underutilized in many Indonesian healthcare institutions. Most hospitals have yet to incorporate environmental metrics into their routine financial reporting, which undermines the institution's ability to respond to environmental risks proactively. Furthermore, environmental accounting remains a relatively under-researched area in Indonesia, especially in the healthcare sector. This lack of attention provides a strong rationale for conducting empirical studies focused on EMA implementation in hospital waste management.

RSUD Inche Abdoel Moeis provides a relevant case study, as it has made efforts to adopt EMA practices but continues to face several challenges. Preliminary observations reveal that the hospital experiences difficulties in managing its finances, including unstable cash flow, high debt burdens, suboptimal working capital, and a lack of long-term financial planning. These financial constraints directly affect the hospital's ability to manage environmental risks effectively.

Legitimacy Theory, first introduced by Dowling and Pfeffer in 1975, serves as a foundational perspective in understanding the relationship between organizations and society. This theory posits that organizations must align their activities and values with prevailing social norms to maintain societal support and acceptance. According to Gray et al. (2019), legitimacy theory explains how corporate disclosures are used to shape stakeholder perceptions in ways that secure or restore legitimacy. Cho et al. (2020) further elaborate that organizations strategically use environmental and social disclosures as tools to respond to perceived threats to their legitimacy in the public domain. Bebbington et al. (2021) emphasize that legitimacy is maintained when an organization operates in accordance with the expectations of society, reinforcing the idea that organizations are not isolated entities but part of a larger social system. Deegan (2022) also underlines that an organization's ability to survive and succeed depends on how well it meets societal expectations, making legitimacy a crucial and ongoing objective. Supporting this, Contrafatto and Burns (2023) explain that legitimacy is a dynamic process, wherein organizations continuously seek to justify their existence and actions through communication and adaptation to shifting societal demands.

In this context, Environmental Management Accounting (EMA) emerges as a vital tool for organizations aiming to legitimize their operations through sustainable and accountable practices. According to the International Federation of Accountants (2005), EMA involves the collection and use of both physical and monetary data related to environmental resource use and costs to support internal decision-making. Schaltegger and Burritt (2017) emphasize that EMA bridges environmental considerations with management processes by using financial and non-financial information. Ikhsan (2019) notes that EMA provides valuable insights for organizational decision-making by tracking material and energy flows as well as environmental cost data. Jasch (2019) reinforces this by stating that EMA enables organizations to reduce environmental impacts and promote cleaner production through

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careful monitoring of environmental expenditures and losses. Burritt and Christ (2021) add that EMA encompasses systems for identifying and allocating environmental costs, integrating them into business strategies to support environmentally responsible decision-making.

Environmental costs themselves are understood as the financial consequences of an organization's impact on the environment. Hansen and Mowen (2017) categorize these costs into four types: prevention, detection, internal failure, and external failure costs. Ikhsan (2019) defines environmental costs as those arising from activities such as waste control, pollution prevention, and environmental restoration. Yakhou and Dorweiler (2019) provide a broader interpretation, describing environmental costs as encompassing compliance expenses, remediation efforts, and opportunity costs associated with environmental liabilities. Bennett et al. (2020) expand this understanding by including expenditures related to pollution control, waste treatment, sustainability initiatives, and environmental audits. Collectively, these perspectives highlight the growing importance of accurately identifying, managing, and reporting environmental costs as part of an organization's strategy to fulfill both regulatory and societal expectations, ultimately supporting its legitimacy and long-term sustainability.

This research is motivated by the need to understand how environmental management accounting is practiced at RSUD Inche Abdoel Moeis, particularly in relation to hospital waste management. The study aims to explore whether EMA is being implemented efficiently, and how such practices can be improved to support sustainable hospital operations. The findings are expected to contribute to the broader discourse on environmental accountability in public service institutions and offer practical insights for improving hospital waste governance.

In general, the previous studies that support this research are focused on the application of Environmental Management Accounting (EMA) within healthcare institutions, particularly hospitals. These studies offer various insights into how environmental costs are managed, recorded, and reported in different hospital settings. Seneviratne and Kalpani (2020) conducted a qualitative case study in a large manufacturing company to explore how EMA practices influence waste management. They identified key stakeholder pressures—coercive, mimetic, and normative—as primary motivators for improving environmental practices. Although not conducted in a hospital setting, this study provides a foundational understanding of the contextual factors affecting EMA implementation. Harjanti and Widajantie (2021) explored EMA practices at Dr. Mohammad Zyn Regional Hospital, finding that while waste management was operational, environmental costs were not grouped or reported separately, and there was no specialized environmental accounting system in place. Similarly, Pelupessy et al. (2021) found that although Namlea Regional Hospital managed its waste effectively, it lacked specific environmental cost reporting. Their study proposed a model environmental cost report based on Hansen and Mowen's theory, aimed at improving transparency and decision-making. Hirdariani et al. (2022) discovered that Mataram City Hospital managed both infectious and non-infectious waste through internal and external means but had not implemented environmental accounting explicitly. Environmental costs were embedded in general operational expenditures and not presented as separate items in financial reports. Sary et al. (2022), in contrast, identified that Dr. Saiful Anwar General Hospital had effectively implemented EMA by classifying environmental costs and incorporating them into general accounting principles, also achieving efficient waste management. Rangan et al. (2023) investigated Piru Regional General Hospital and found that while waste management—especially of hazardous waste—was handled properly, the hospital had yet to classify or report environmental costs specifically, using instead a cash basis method that delayed cost recognition. Lastly, Sumarlin and Pranesti (2024) found that Rafflesia Hospital in Bengkulu City had implemented environmental accounting appropriately, detailing waste management costs across different categories (household, liquid, solid, gas, and medical waste), and had partnered with third-party service providers for proper waste disposal. These collective findings suggest that while awareness and efforts related to environmental management in hospitals are growing, the integration of systematic environmental accounting remains limited, uneven, and in need of further institutionalization across healthcare facilities.

Based on the background outlined above, the research question for this study is formulated as follows: "How is environmental management accounting implemented in hospital waste management at Inche Abdoel Moeis Regional Public Hospital in Samarinda?"

2. Research Methods

2.1. Research Design

This research uses a qualitative method with a descriptive approach. According to Cresswell & Creswell (2018:4), qualitative methods explore and understand the meanings perceived by individuals or groups regarding social or human issues. This research does not aim to test hypotheses or generalize findings, but rather to gain a deeper understanding of the phenomenon being studied.

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This research design is inductive, meaning the researcher does not start from pre-established theory, but rather from directly observed field realities. The collected data will be analyzed to discover patterns, themes, and deeper meanings related to innovation practices in company operations. This process aligns with Cresswell & Creswell (2018:45), who state that in an inductive approach, researchers build patterns and categories from the bottom up based on actual data obtained from respondents or research subjects.

Because the research design uses a qualitative method with a descriptive approach, the aim is to describe the results of the research subjects in depth, without providing broader implications. The researcher chose a qualitative descriptive method to find facts and interpret the practice of Environmental Management Accounting in Hospital Waste Management (Study at Inche Abdoel Moeis Regional General Hospital, Samarinda City, so that it can describe the characteristics of the phenomena that occur in hospital operational activities in Samarinda.

2.2. Research Informants

In qualitative research, informants—often referred to as sources—are individuals or groups who are selected because they are believed to possess relevant knowledge and insights about the object of study. These informants play a vital role, not only as providers of information but also in ensuring the depth and completeness of the data collected. Their perspectives and experiences are essential for understanding the phenomena being examined. In this study, the informants were chosen from within the organizational structure of Inche Abdoel Moeis Regional General Hospital in Samarinda City, including both management and operational-level employees. The selection was based on their direct involvement and relevance to the research focus. The informants included: (1) the Director of the Hospital, (2) the Head of Finance, (3) the Head of the Medical Support Division, (4) financial report preparation staff, and (5) medical support employees responsible for managing hospital waste and sanitation. These individuals were considered key sources of data due to their respective roles and understanding of hospital operations related to environmental accounting and management.

2.3. Research Focus

The focus of this research is only to discuss the Environmental Management Accounting Practices at Inche Abdoel Moeis Regional General Hospital, Samarinda City in fulfilling waste management according to the procedures regulated in the legislation on hospital health and its PROPER. The focus of the research is as follows: Analysis of Hospital Environmental Management Accounting, consisting of:

1. The application of Environmental Management Accounting includes:
   a. Environmental health planning
   b. Environmental health budgeting
   c. Implementation of environmental health
   d. Environmental health reporting
2. External impacts, namely the affected environment:
   That is the policy of the Hospital owner in Hospital Performance Rating Assessment Program for Waste Management (PROPER)

2.4. Data Analysis Techniques

The data analysis used in this study is the data analysis put forward by the one who stated "in qualitative research, data analysis is carried out through 4 (four) simultaneous activity paths, namely: data collection, data reduction, data presentation and drawing conclusions/verification". Substantively, the four lines of thought mentioned above can be described in the following figure:

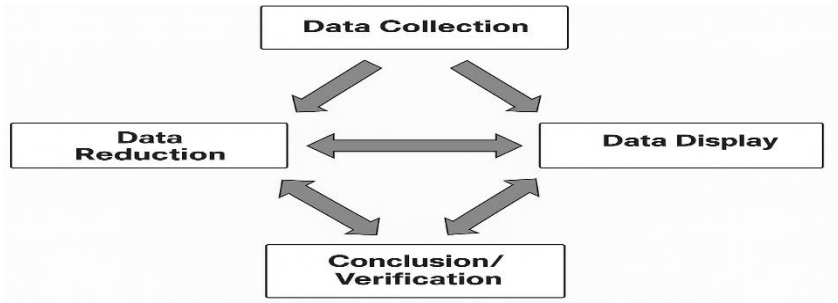

Figure 1. Components of Data Analysis: Interactive Model

Source: Miles et al. (2020)

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Based on the description of the data analysis component image, the analysis procedure related to Environmental Management Accounting at Inche Abdoel Moeis Regional General Hospital, Samarinda City can be explained, namely:

1. Data collection, data collection is the main activity carried out by researchers in searching for the required data, in accordance with the problems in this study, generally this data is raw data, in the form of interview results with sources in the study, namely the leadership, employees of the Regional General Hospital Inche Abdoel Moeis Samarinda City which is the object of research and several communities in the hospital area that meet the criteria in this study. Data collection is also obtained from the results of observations, and the results of research documentation.
2. Data reduction or condensation: After researchers have collected data from various sources, the data is then processed, simplifying it to be more specific to the problem being discussed. This condensation also involves abstracting and transforming the data from all previously collected data. By reducing or condensing the data, it is hoped that the resulting data will be more robust.
3. Data presentation is the presentation of data as a structured set of information that allows for conclusions to be drawn and action taken. Data presentation in research is presented in tables, graphs, networks, or charts, all designed to combine organized information into a coherent, easily accessible, and understandable format. With data reduction, the creation and use of data presentation is not separate from analysis; it is part of the analysis.
4. Drawing conclusions/verification: From the beginning of data collection, the author will begin to search for meaning in the compiled data, record data, and develop explanatory patterns for each piece of data. Conclusions are also verified throughout the research. The meanings emerging from the data must also be tested for accuracy and appropriateness, which constitutes validity.

3. Results and Discussions

3.1. Implementation of Environmental Management Accounting at Inche Abdoel Moeis Regional General Hospital

Environmental management accounting is a field of accounting that functions to identify, measure, assess, and report environmental costs. In the context of hospitals, particularly Inche Abdoel Moeis Regional General Hospital in Samarinda, the implementation of environmental management accounting is crucial as a manifestation of social responsibility and sustainable environmental management. The application of environmental management accounting in waste management at Inche Abdoel Moeis Regional General Hospital (RSUD) in Samarinda City reflects a systematic effort to account for environmental aspects operationally and socially. This practice is implemented through four main stages: planning, budgeting, implementation, and reporting of environmental health activities. During the planning stage, the hospital not only establishes technical steps for waste management but also builds collective awareness through internal outreach regarding recycling and environmentally friendly waste management. This outreach is strengthened by the involvement of external stakeholders such as the surrounding community and local government, in line with the participatory approach emphasized in the research by Pelupessy et al. (2021). This reflects a normative legitimacy strategy, where the hospital seeks to demonstrate that its environmental plans and policies align with community values and expectations regarding sustainable healthcare services.

The next stage is budgeting, where the Regional General Hospital allocates a significant budget to support environmental protection efforts, including the management of the Wastewater Treatment Plant (WWTP), the procurement of medical plastic bags, and the costs of wastewater quality monitoring and equipment maintenance such as incinerators. The total allocated environmental budget for 2024 reaches over one billion rupiah, including anticipation of internal failure costs. This budgeting demonstrates that the hospital understands the importance of financing as a form of institutional responsibility and strengthening pragmatic legitimacy, namely providing direct value to the public through protection against potential environmental risks that impact public health.

The implementation phase includes routine activities such as the collection, separation, and destruction of medical waste, as well as periodic maintenance of waste management infrastructure. These activities are carried out by the hospital's dedicated environmental health team, using standardized facilities and equipment. This practice strengthens the hospital's operational legitimacy by demonstrating that the established policies and budget are being implemented consistently and responsibly. In other words, the regional general hospital strives to demonstrate that its services align with the principles of sustainability and public safety.

The final stage is reporting, which is a form of environmental accountability to internal and external parties, including within the PROPER program evaluation framework by local governments. This reporting serves not

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only as administrative documentation but also as evidence of institutional transparency to the public. In line with the view of Koesrijanti & Wijayanti (2007), quality reporting can support harmony between humans and the environment. In the context of legitimacy theory, Deegan, (2022),The reporting is part of a symbolic strategy to maintain public trust through transparency and disclosure of social responsibility.

Overall, the environmental management accounting practices implemented at Inche Abdoel Moeis Regional General Hospital in Samarinda demonstrate a strong link with the principles of legitimacy theory. The hospital not only strives to comply with formal regulations but also builds social legitimacy through a participatory approach, proportional budget allocation, sustainable implementation, and transparent reporting. This demonstrates that environmental management accounting is not simply a cost-recording tool but also a strategic instrument for strengthening the institution's position as a socially and ecologically responsible entity within the community.

By examining all stages of environmental management accounting practices implemented by Inche Abdoel Moeis Regional Hospital, from planning and budgeting to implementation and reporting, it can be concluded that the implementation of environmental management accounting in waste management efforts has been structured and in accordance with sustainability principles. The clarity of the planning and budgeting process, stakeholder involvement, and transparent reporting reflect the hospital's commitment to fulfilling its social and environmental responsibilities.

3.2. Management Accounting Policies in Improving Environmental Management Based on PPOPET

Hospitals play a vital role in providing professional, high-quality, and affordable healthcare services to all levels of society. Therefore, hospitals are at the forefront of public health development. Hospital environmental health is regulated by the Minister of Health Regulation No. 7 of 2019 concerning Hospital Environmental Health. This regulation was developed to ensure the quality of hospital environmental health meets environmental health standards and health requirements. According to Fatmawati & Purnaweni (2018), one of the government's efforts to monitor and protect the environment is through the Company Performance Rating Program in Environmental Management (PROPER).

Fulfillment of these environmental quality standards is a form of performance evaluation of the Inche Abdoel Moeis Regional General Hospital in Samarinda and also a form of business responsibility in environmental management activities. This action also directly fulfills the requirements.policies regulated by Minister of Environment and Forestry Regulation Number 1 of 2021About the Company's Performance Rating (Proper) Assessment Program in Environmental Management. The activities of RSUD, I. A. Moeis Samarinda in complying with the provisions of environmental management laws and regulations are demonstrated by improving environmental quality through planning, utilization, control, maintenance, supervision and law enforcement activities. One example is the management of B3 waste, waste disposal and other environmental management activities. With these environmental management efforts, RSUD, I. A. Moeis Samarinda for 2024 has received a Blue rating for the PROPER assessment. As is known in the PROPER assessment there are 5 levels namely gold, green, blue, red and black. The highest rating is gold, which can only be obtained if the company consistently demonstrates environmental excellence in production, carries out ethical business and is responsible to the community. By obtaining a blue rating (safe limit) shows that management still has shortcomings, because in fact a hospital of the class of RSUD, I. A. Moeis Samarinda is at the green PROPER rating. With the blue rating it reflects environmental compliance and performance levels Regional General Hospital, Inche Abdoel Moeis Samarinda. PROPER blue is the desired initial target, and companies that achieve it can be considered leaders in sustainable environmental management practices in Indonesia.

The hospital's participation in the Proper program is due to the risks of water pollution, air pollution and the management of B3 waste generated by hospital service activities, making it a necessity and mandatory for the hospital. Arindita, et al., (2016). InMinister of Environment and Forestry Regulation Number 1 of 2021 also states thatAll businesses are required to comply with PROPER. These businesses must strive to avoid receiving a red or black PROPER index, as this can result in administrative sanctions, even business closure Inche Abdoel Moeis Regional General HospitalSamarinda, in the future, with the achievement of green targets, will continue to improve policies in waste management. Real evidence of the hospital's seriousness is shown by improving UKL, UPL to AMDAL and becoming a pioneer in waste management. This action also indicates that the hospital is serious about supporting the achievement of better PROPER standards. Each rating category obtained depends on the level of compliance with established environmental regulations. There are two PROPER assessment criteria for determining PROPER ratings: compliance assessment criteria and assessment criteria exceeding those required in the regulations (beyond compliance). The first criterion, namely compliance assessment, answers a simple question: Is the company compliant with environmental management regulations? The aspects assessed include:Environmental document requirements and reporting; Water Pollution Control; Air Pollution Control;

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Hazardous and Toxic Waste Management (B3); Seawater Pollution Control; and Potential Land Damage. Second criteria beyond complianceIt is more dynamic because it is adapted to technological developments, the implementation of best environmental management practices and global environmental issues. Aspects assessed: Implementation of Environmental Management Systems; Energy Efficiency Efforts; Emission Reduction Efforts; Implementation Reduce, Reuse dan RecycleB3 and non-B3 waste. Fatmawati & Purnaweni, (2018). The systematic implementation of environmental management accounting policies through the PPOPET approach and active participation in the PROPER program can be analyzed theoretically using Legitimacy Theory. According to Deegan (2022), this theory states that organizations need to ensure that their operational activities align with prevailing social values and norms to gain acceptance and support from the wider community.

In this context, Inche Abdoel Moeis Regional General Hospital in Samarinda strives to build and maintain institutional legitimacy through compliance with environmental regulations and transparency in reporting environmental performance. Active participation in PROPER is not only an administrative obligation but also a form of symbolic communication to the public that the hospital carries out socially and ecologically responsible practices. This is in line with O'Donovan's (2002) view that disclosing environmental information is one-way organizations influence public perceptions to maintain legitimacy.

Furthermore, the Inche Abdoel Moeis Regional Hospital efforts to improve its PROPER rating through transforming its waste management system and strengthening environmental documentation are a form of legitimacy strategy that reflects a commitment to the principles of good governance, accountability, and sustainability. This strategy indirectly strengthens the institution's competitiveness in obtaining accreditation, increases stakeholder trust, and maintains support from the community and local government.

The Seriousness of Inche Abdoel Moeis Regional General Hospital Samarinda in achieving higher property targets, apart from being a program that companies must follow because it is related to the impact on the environment, also because the assessment of the property is a prerequisite for company accreditation.In addition, PROPER can be used as an instrument to measure the performance of macro environmental management that has been carried out at the central and regional levels, as well as can be a driving force for the implementation of modern database systems.With these benefits, it is certainly very important to improve it, especiallyInche Abdoel Moeis Regional General Hospital Samarinda as a health service center with a target of excellent service. Strengthening the capacity of the PROPER inspection team is an important aspect in the preparation stage because it aims to ensure that all parties involved in the supervision understand the PROPER assessment criteria that must be considered while in the field. Fatmawati & Purnaweni (2018) stated that the implementation mechanism and a series of established regulations must be communicated to PROPER participants before the order to carry out good environmental management can be followed. Clarity in conveying the rules is necessary to avoid misunderstandings between the Team and PROPER participants.

Thus, the management accounting policy implemented by Inche Abdoel Moeis Regional General Hospital in Samarinda within the PPOPET framework effectively encourages the strengthening of an environmental management system that is not only oriented towards compliance but also creates institutional added value. This implementation aligns with Legitimacy Theory, where the hospital plays an active role in building its image as an ethical, responsible, and sustainable healthcare institution.

4. Conclusion

Based on the research results and discussions that have been conducted, it can be concluded that environmental management accounting practices in waste management at Inche Abdoel Moeis Regional General Hospital, Samarinda City have been implemented systematically, comprehensively, and structured through the PPOPET approach (Planning, Budgeting, Implementation, Operations, Evaluation, and Follow-up). The implementation process begins with the planning stage, which includes internal and external socialization and stakeholder involvement in developing environmental management strategies. Furthermore, at the budgeting stage, the hospital has allocated funds specifically for medical and non-medical waste management activities, pollution control, and maintenance of environmental facilities such as incinerators and wastewater treatment plants (WWTP). The implementation stage is carried out routinely by environmental officers with organized supervision and documentation, including B3 waste management according to procedures. At the reporting stage, all activities are documented as a form of institutional accountability and as part of the PROPER assessment conducted by the government. Achieving a Blue PROPER rating indicates that the hospital has met the standards for compliance with environmental regulations but still has opportunities to improve its performance towards beyond compliance. Environmental management accounting at Inche Abdoel Moeis Regional General Hospital has significantly contributed to the effectiveness of waste management, supported reporting transparency, and strengthened the

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hospital's institutional legitimacy as a socially and ecologically responsible public service provider. Based on the research and conclusions above, the researcher has noted several suggestions that may be worth considering: 1) It's recommended to more systematically integrate environmental cost information into hospital internal financial reports. This is crucial for increasing transparency and effectiveness in waste management and supporting sustainability-oriented decision-making; 2) It is recommended that future research broaden the focus of this study by adding a quantitative evaluation of the effectiveness of environmental accounting implementation or comparing hospitals with different PROPER levels. In-depth research into the relationship between environmental accounting policies and increased cost efficiency could also be an important contribution to healthcare sustainability literature. This study has several limitations that should be acknowledged as important considerations for future research. Firstly, the research was conducted solely at Inche Abdoel Moeis Regional General Hospital in Samarinda City, which limits the generalizability of the findings to other hospitals with different characteristics, capacities, or management systems. Secondly, the data used were primarily derived from interviews and internal hospital documents, with limited access to broader and more comprehensive quantitative data. This constraint hindered the depth of numerical analysis, particularly in evaluating the efficiency of environmental costs. Lastly, the study employed a descriptive qualitative approach, which, while effective in exploring context and understanding processes, does not statistically assess causal relationships or the influence between environmental accounting practices and hospital environmental performance. Future studies are encouraged to incorporate quantitative or mixed-method approaches to provide a more comprehensive and measurable understanding.

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