International Journal of Economics and Management Research

E-ISSN: 2830-2508
P-ISSN: 2830-2664

(Research) Article

Implementation of Green Accounting in Waste Management at The Aqma Cikampek Clinic, Karawang Regency

[1]Ricka Khasanah, [2]Lilis Lasmini, [3]Ade Trisyanto

[1] **Universitas Buana Perjuangan Karawang** 1; e-mail : ak21.rickakhasanah@mhs.ubpkarawang.ac.id
[2] **Universitas Buana Perjuangan Karawang** e-mail : lilislasmini@ubpkarawang.ac.id
[3] **Universitas Buana Perjuangan Karawang**; e-mail : adetrisyanto@ubpkarawang.ac.id

Abstract: Suboptimal medical waste management has a negative impact on the environment and public health. Aqma Clinic Cikampek has implemented a waste management system according to standards, but the recording of environmental costs is still combined with general operational costs without any specific classification, thus hampering transparency and effectiveness of waste cost management. This study uses a descriptive qualitative method with data collection techniques through interviews, observations, and document analysis related to environmental cost recording. The results show that Aqma Clinic still carries out medical waste management according to procedures such as separating infectious and non-infectious waste and collaborating with third parties for waste disposal. However, the recording of waste management costs has not been done separately and still uses the historical cost method. The study recommends the implementation of Green Accounting with the Activity-Based Costing (ABC) method to improve transparency and accountability of environmental costs. This study concludes that the implementation of Green Accounting at Aqma Clinic is still partial and has not been integrated into the formal accounting system. Therefore, it is necessary to develop a more structured and transparent environmental cost recording system to support operational sustainability.

Keywords: Aqma Cikampek Clinic, Environmental Accounting, Medical Waste Management

1. Introduction

Environmental pollution in Indonesia has reached alarming levels, primarily due to waste generated from industrial activities, including factories, hospitals, and hotels. This waste causes air, water, and soil pollution, and is worsening because increases in efficiency and productivity are often carried out without considering the environmental impact. Awareness of the importance of good environmental management led to the formation of the Environmental Pollution Control Association (APPL) on December 10, 2008. To address this problem, one sector facing significant challenges is Healthcare Facilities.(Sukirman & Suciati, 2019).

One type of healthcare facility, a clinic, as a provider of medical services, is responsible for the waste it produces. If waste is not managed properly, it can impact the spread of disease and the environment. Therefore, good environmental management is an essential part of the clinic's mission to create a healthy environment. To support effective waste management, clinics need to implement environmental accounting. This system helps control and measure costs incurred in medical waste management, thereby minimizing expenses and ensuring that the clinic is environmentally responsible. Environmental accounting provides a clear picture of environmental costs that can be used to optimize waste management in a more transparent and responsible manner. (Anggraeni, 2024).

In Indonesia, medical waste management in healthcare facilities is regulated by Regulation of the Minister of Health of the Republic of Indonesia Number 18 of 2020 concerning Regional-Based Medical Waste Management in Healthcare Facilities. This regulation is an improvement on the previous regulation and provides technical guidance regarding medical

Received: July 08, 2025;
Revised: July 22, 2025;
Accepted: Agustus 12, 2025;
Online Available: Agustus 21, 2025;
Curr. Ver.: Agustus 21, 2025;

waste management, from sorting, collection, storage, and even disposal. This regulation requires every healthcare facility, such as a clinic, to manage medical waste in a safe, integrated, and environmentally responsible manner. Furthermore, the Indonesian Ministry of Health stated in 2020 that most hospitals and healthcare facilities have implemented medical waste management in accordance with applicable standards, particularly in the process of temporary storage and destruction of medical waste as stipulated in applicable regulations.(Ministry of Health of the Republic of Indonesia, 2020)This demonstrates the government's commitment to improving environmental health by implementing national waste management regulations.

In Karawang Regency, medical waste is a serious problem that requires special attention. According to the latest data, the amount of medical waste produced in Karawang reaches 22 tons per day, most of which originates from hospitals, clinics, and other healthcare facilities. PT Jasa Medivest, the company that handles medical waste management in Karawang, has a waste management capacity of up to 24 tons per day. With this capacity, PT Jasa Medivest is still able to handle the incoming medical waste.(Radar Sukabumi, 2021).

Furthermore, medical waste management costs in Karawang and the surrounding area vary, ranging from Rp 8,000 to Rp 10,000 per kilogram, depending on the type of waste and the management company's policies. Under certain conditions, the price can even rise to Rp 20,000 per kilogram if processing capacity approaches its maximum limit or there is a significant increase in the amount of medical waste.(Validnews, 2025).

Clinics located in residential areas prioritize maintaining environmental cleanliness and managing medical waste to prevent negative impacts on public health and environmental pollution. One example of a healthcare facility that has implemented an integrated medical waste management system is the Aqma Cikampek Clinic, a dental and general health clinic located in Cikampek District, Karawang Regency. This clinic provides outpatient health services, medical check-ups, and laboratory services. Given its location in a densely populated area, the Aqma Clinic pays special attention to handling medical waste, especially hazardous and toxic waste (B3), by implementing internal management mechanisms and collaborating with third parties. Although this management requires significant operational costs, it reflects the Aqma Clinic's commitment to maintaining environmental sustainability and the health of the surrounding community.

Despite various efforts by healthcare facilities to properly manage medical waste, cases of illegal medical waste disposal continue to be found in Karawang Regency. In early January 2025, piles of medical waste, including syringes, IV tubes, and medicines, were found scattered under the bridge connecting Karawang and Bekasi Regencies, specifically over the Citarum River. The waste is suspected to have originated from irresponsible parties and was disposed of without proper management procedures. The Karawang Regency Environmental Agency (DLH) stated that it would take firm action against perpetrators of illegal medical waste disposal and is working with law enforcement to investigate this case.(Anatara News, 2025).

This phenomenon shows that although some healthcare facilities, including clinics, have made efforts to manage medical waste properly, there are still irresponsible parties who dispose of medical waste carelessly, threatening public health and the environment. Furthermore, several previous studies have also found similar problems, including research onDarsani et al. (2023)A study conducted at Dr. Pirngadi Regional General Hospital in Medan City showed that medical waste management costs are often not recorded separately in hospital financial reports, reducing transparency and efficiency in environmental cost management. Researchers by,Larasati et al. (2020)also found that although hospitals in Jayapura City have complied with medical waste management regulations, the implementation of environmental accounting integrated with financial reports is still lacking, with waste management costs only recorded internally without clear YSNan reports, thus reducing effectiveness and transparency.Refiyani & Putra (2023)at the West Java Provincial Mental Hospital also showed that although costs related to medical waste management had been recorded, these were not recorded in a special financial report for environmental costs, thus hampering transparency and accountability.

Based on this phenomenon, the implementation of Green Accounting at Aqma Clinic is a solution to increase transparency, efficiency, and accountability in medical waste management. With this system, Aqma Clinic can be more efficient in recording and controlling environmental costs and mitigating negative impacts on public health and the surrounding environment. The implementation of environmental accounting also enables the clinic to be more compliant with applicable regulations while building public trust in environmentally responsible healthcare services.

The aim of this study is to improve the effectiveness of medical waste management at the Aqma Cikampek clinic, reduce environmental impacts, and ensure that waste management operational costs are recorded transparently and in accordance with applicable regulations.

2. Literature Review

2.1. Legitimacy theory

Legitimacy Theory is one of the theories used in the field of social and environmental accounting, particularly to develop theories of social and environmental responsibility disclosure. According toBadjuri et al. (2021)This theory states that a company's survival depends heavily on its relationship with society and its environment, where the company has a social contract to conduct its activities in accordance with the values of justice and prevailing norms in society.Dowling & Pfeffer (1975)explains that companies strive to gain and strengthen social legitimacy in the environment in which they operate. If the public deems a company to be non-compliant with existing regulations, its legitimacy can be revoked, requiring the company to consistently comply with these regulations to ensure its operations continue to run smoothly.(Badjuri et al., 2021)This theory also emphasizes the importance of companies meeting the expectations and demands of stakeholders such as patients, the surrounding community, and the government, especially in the context of medical waste management, so that their operational activities remain in line with social and environmental values.

2.2 Environmental accounting (Green Accounting)

According toWijayanto et al. (2021)Environmental accounting is the study and analysis of resource utilization and the measurement of a company's economic impact on the environment, both on a company-wide scale and on the national economy. Social or environmental accounting is considered a necessity for companies, acting as a form of corporate social responsibility towards the environment. Environmental accounting is considered a crucial tool for understanding the role of the natural environment in the economic context and indirectly influencing the sustainability of a company's operations (Going Concern).

The objectives of environmental accounting according toDondokambey (2012)are as follows:

a. As an environmental management tool to assess the effectiveness of conservation activities based on a summary and classification of environmental conservation costs. Environmental accounting data is also used to determine the costs of environmental management facilities, assess output levels and annual achievements to ensure sustainable improvements in environmental performance.

b. As a communication tool with the public. Environmental accounting is used to communicate impacts to the public. Customer and community responses and views on environmental accounting are used as feedback for the company's environmental management.

According toKusuma et al. (2019)The following are the functions and roles of environmental accounting, namely:

a. Internal functions

Internal functions relate to internal parties within the company, such as management responsible for decision-making and policy-making. Internal functions enable the effective and efficient management and analysis of environmental conservation costs, and support informed decision-making. Environmental accounting is expected to serve as a business management tool, helping managers manage business units in a more focused and responsible manner.

b. External functions

The external function focuses on financial reporting, particularly in disclosing environmental conservation results. The information provided consists of quantitatively measured accounting data, including details of the company's resources. This is essential for transparency and accountability of environmental conservation activities..

2.3 Environmental costs

Environmental costs are costs that arise from environmental degradation caused by the production process. When compiling a report, it's important to categorize environmental costs by type so that the report can serve as a source of information for monitoring company operations, particularly those areas that have the potential to impact the environment.(Parmawati, 2019). In line with that, according toGuno (2023)Environmental costs include the monetary and non-monetary impacts of a company's activities that affect environmental quality through its products, processes, systems, and facilities. The purpose of collecting and recording environmental costs is to reduce the burden of environmental costs, increase revenue, and improve environmental performance by considering current conditions, future planning, and potential risks.

According toGuan et al. (2009)Environmental costs (environmental quality costs) are costs incurred by a company due to its operational activities that affect the environment. These costs are classified into four main categories as part of the environmental quality cost category framework:

a. Environmental prevention costs are costs incurred to prevent environmental pollution. The primary goal is to avoid waste generation or reduce emissions in the first place. Examples include redesigning processes to reduce waste, environmental training for employees, developing environmentally friendly products, and environmental audits.

b. Environmental detection costs are fees paid to evaluate whether a company's activities comply with environmental regulations. Examples include environmental audits, environmental inspections, and waste sampling and testing.

c. Internal failure costs (internal environmental costs) are costs arising from waste or pollution problems that can be managed internally. Examples include operational costs for waste management, repairs to equipment used to control pollution, and costs for handling hazardous material leaks.

d. External failure costs are costs that arise after pollution or waste contaminates the external environment. These costs include legal fines, compensation payments for environmental damage, legal costs, and the costs of restoring and rehabilitating the affected environment.

Environmental cost classification helps organizations identify, manage, and report costs related to environmental impacts in a more structured manner. This way, companies can improve cost management and ensure they comply with applicable environmental regulations.

2.4 Medical waste

Medical waste is the waste generated from various healthcare activities, such as hospitals, community health centers, clinics, laboratories, private practices, and medical research facilities. This waste can be biological and non-biological materials in solid, liquid, gas, or paste (gel) form. Medical waste generally contains highly infectious substances, toxic chemicals, or even radioactive materials.

According toChotijah et al. (2017)Medical waste is classified as hazardous and toxic waste (B3) because it is infectious, explosive, flammable, fast-acting, destructive, and toxic. If this type of waste is disposed of in the environment without proper management standards, it will negatively impact public health and cause environmental damage. Medical waste poses

a major challenge to healthcare services because it is not only biologically hazardous but also requires specialized handling and costs.Fajriansyah et al. (2021)He added that medical waste consists of various forms, including blood, bodily fluids, body tissues, and used medical equipment like syringes, IV lines, medical gloves, and contaminated cotton. All of these components can spread disease if not managed carefully.

Based on researchSuhariono & Hariyati (2020), medical waste is categorized into several types based on its form and source:

a. Solid medical waste, which is solid waste originating from medical activities. This waste is divided into two types:

    1. Solid medical waste includes infectious waste, pathological waste, sharps waste, pharmaceutical waste, cytotoxic waste, chemical waste, radioactive waste, and waste containing heavy metals.

    2. Non-medical waste, namely waste originating from non-medical activities, such as kitchen, office, garden and hospital yard waste, which can still be recycled if appropriate technology is used.

b. Liquid waste, namely waste in the form of water or feces which may contain microorganisms, hazardous chemicals or radioactive substances which can harm human health.

c. Gas waste, namely gas-shaped waste produced from the process of burning medical waste such as emissions from incinerators, kitchens, generators, the use of anesthetics and the process of producing toxic drugs.

d. Infectious waste, or contagious waste, is medical waste contaminated with disease-causing microorganisms such as bacteria or viruses in significant quantities and is contagious. This waste has the potential to cause infections in people with weakened immune systems.

e. Highly infectious waste or highly contagious waste, namely medical waste originating from laboratory materials such as infectious disease germ culture media, remains of autopsy procedures for organs from experimental animals and other materials that have been exposed to or injected with highly contagious infection-causing organisms.

f. Cytotoxic waste, namely waste containing materials contaminated by the preparation or administration of cytotoxic drugs used in cancer chemotherapy which have the property of killing or inhibiting the growth of living cells.

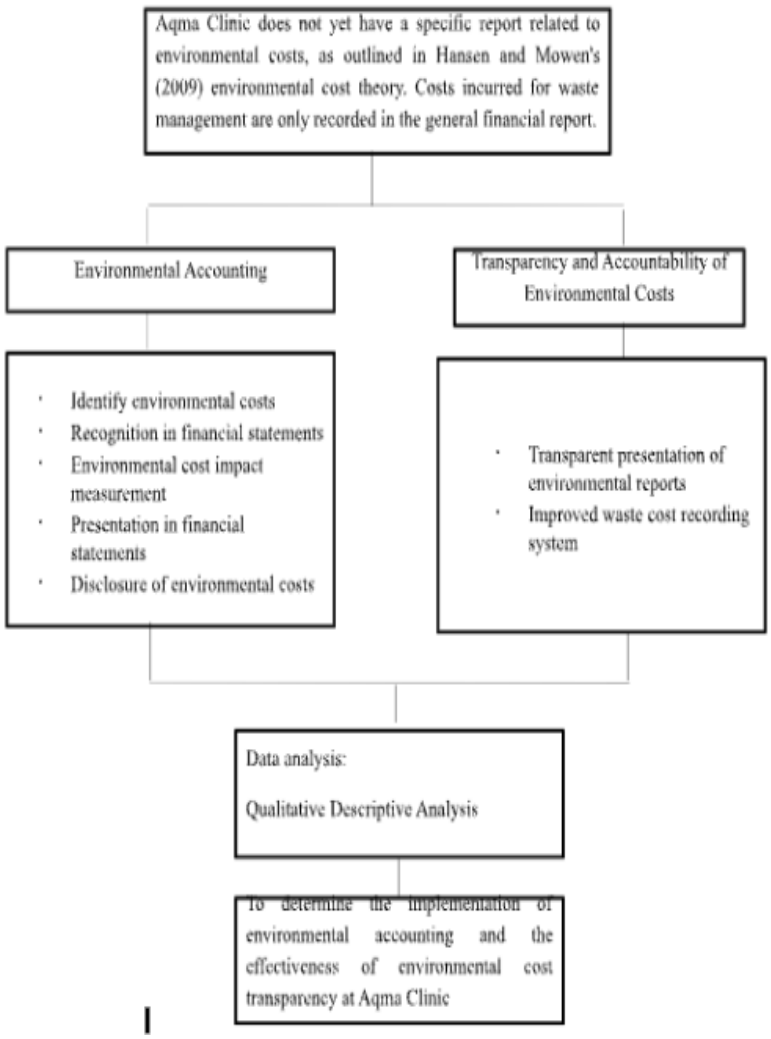

Figure 1.Framework

Research proposition

A proposition is the initial assumption of a study of an observed phenomenon. Based on this framework, the research proposition is that the implementation of environmental accounting at Aqma Clinic plays a significant role in increasing transparency and accountability in the recording of environmental costs. Identifying and recognizing specific environmental costs in Aqma Clinic's financial statements can more accurately measure the impact of environmental costs and ensure optimal medical waste management. Furthermore, transparent presentation of environmental reports can help improve the waste cost recording system, thus facilitating the evaluation of the effectiveness of waste management at the clinic. Through qualitative descriptive analysis, this study aims to reveal the extent to which the implementation of environmental accounting can support more systematic and responsible waste management. Disclosing environmental costs in Aqma Clinic's financial statements is expected to strengthen its accountability in applying environmental accounting principles and provide a clearer picture of the allocation of waste management costs.

3. RESEARCH METHODS

This study uses a qualitative approach with a descriptive design to understand medical waste management and the application of environmental accounting at the Aqma Cikampek clinic.Hasan et al. (2022)Qualitative research aims to understand phenomena in their natural context and uses methods such as in-depth interviews to allow researchers to gain a deep understanding of the research subjects. This approach

also emphasizes the importance of researchers' knowledge of the context and research objects to generate valid insights. The data used in this study consist of primary and secondary data. Primary data were obtained through in-depth interviews with Ms. Eliza Nur Azzahra, S.Psi., M.Psi., as the Human Resource Department of the Aqma Cikampek clinic who provided insight into internal policies related to waste management and Ms. Sari Ayu Lestari, SE, MM as the Manager of the Aqma Cikampek clinic who explained operational aspects, environmental cost recording and obstacles in implementing environmental accounting. Meanwhile, secondary data were obtained from library research journals and clinical documents such as medical waste management cost records and budget realization reports.

Data analysis was conducted using a comparative descriptive method, comparing interview and document data with environmental accounting theory. Using the Miles and Huberman model, the analysis was conducted through three main stages: data reduction to filter relevant information, data presentation to understand environmental accounting implementation patterns, and drawing conclusions to formulate recommendations for improving the environmental cost recording system.

Data collection techniques included in-depth interviews with Human Resources Development and the Aqma Clinic Manager as well as a review of documents related to waste management and environmental accounting.

The results of this study are expected to provide a comprehensive understanding of how the AQMA clinic records environmental costs and provide suggestions for improving clarity, efficiency and responsibility in medical waste management by implementing a more structured environmental accounting method.

4 RESEARCH RESULTS AND DISCUSSION

Research result

A. Operational Waste from Aqma Cikampek Clinic

Based on an interview with Ms. Eliza, Head of Human Resources Development, Aqma Clinic produces several types of medical waste that must be properly managed in accordance with applicable regulations. These types of waste include:

1. Infectious waste

   Waste contaminated with patient blood or bodily fluids, such as used bandages, cotton wool, medical gloves, and medical laboratory test equipment, carries a high risk of spreading disease and must be managed with special procedures.

2. Pharmaceutical waste

   This waste consists of expired medications, unused leftover medications, and empty drug packaging. Pharmaceutical waste must be separated to prevent environmental pollution.

3. Solid and sharp waste

This type of waste includes used syringes, scalpels, broken ampoules, and other medical devices that have sharp edges and pose a risk of injury to health workers.

Based on the results of the interview, it can be concluded that Aqma clinical waste consists of three types, namely infectious waste, pharmaceutical waste, solid waste and sharp waste.

B. Stages of the Clinical Waste Management Process

Based on the results of an interview conducted with Ms. Eliza as Human Resources Development, medical waste management at the AQMA clinic is carried out through five main stages to ensure environmental safety and public health:

1. Sorting (Sir, sorry for this, SORTING not SELECTION)

Medical waste is separated by type: infectious waste, sharps waste, chemical waste, and pharmaceutical waste. This separation aims to prevent cross-contamination and ensure that each type of waste is properly managed.

2. Shelter

After sorting, medical waste is placed in special containers tailored to its characteristics. Infectious waste is placed in leak-proof yellow plastic bags, sharps, such as syringes, are placed in safety boxes, and pharmaceutical waste is packaged in tightly sealed containers.

3. Transportation

Packaged medical waste is then stored in a temporary storage facility (TPS) before being transported by authorized vendors with medical waste management permits. Aqma Clinic ensures that waste is only delivered to verified vendors to ensure its management meets standards.

4. Processing

The waste processing process is carried out entirely by the vendor using appropriate methods, such as incineration, autoclaving, or other methods stipulated in the regulations.

5. Disposal

After processing, the non-hazardous waste is disposed of at a government-designated location. Aqma Clinic ensures that all stages of waste management are carried out according to procedures to minimize negative impacts on the environment and public health.

Based on the interview results, it can be concluded that the Aqma Clinic implements a structured medical waste management system that complies with regulatory standards. This process includes sorting, collection, transportation, processing, and disposal, all carried out by licensed vendors.

C. Aqma Cikampek Clinic Waste Management Costs

Based on an interview conducted with Mrs. Sari as the Manager of the Aqma Cikampek Clinic, she stated that:

"The medical waste management system is well-functioning, but environmental costs have not been specifically recorded in the financial statements. Medical waste management costs are still combined with general operating costs, without a specific classification for environmental costs. The clinic has also not implemented the Green Accounting concept in its financial reporting, thus reducing transparency in recording environmental costs arising from medical waste management. In terms of financing, the clinic allocates a budget for waste management equipment maintenance, staff services, waste transportation costs, and waste disposal costs. However, these costs are still calculated historically, based on the actual costs incurred for waste transportation and disposal services by third parties. This results in a lack of monitoring of waste management cost efficiency and difficulty in assessing the extent of environmental costs incurred."

Based on the interviews above, it can be concluded that although the Aqma Cikampek Clinic has implemented medical waste management in accordance with applicable procedures, it has not implemented Green Accounting and separate environmental cost recording. The clinic also still relies on cost calculations based on historical data, without clear cost classification in the financial reports. This results in a lack of transparency in environmental cost management and hinders the efficiency and optimization of the medical waste management budget.

Below, the author presents Table 2 which shows the Waste Management Costs at the Aqma Clinic in 2024.

No	Cost Category	Annual fee (Rp)
1	Equipment Maintenance Costs	Rp. 7,500,000
2	Cleaning Service Fee	Rp. 13,000,000
3	Waste Transportation Costs	Rp. 22,000,000
4	Waste Disposal Costs	Rp. 35,000,000
5	Other Expenses (Training, etc.)	Rp. 6,500,000
6	Total Waste Management Cost	Rp. 84,000,000

Source: data processed by researchers

Based on table 1, the largest costs come from waste disposal (Rp. 35,000,000 per year) and waste transportation (Rp. 22,000,000 per year) which shows that most of the budget is allocated for cooperation with third parties in processing medical waste at the Aqma clinic.

5. Discussion

1. Waste management at Aqma Clinic

The results of this study indicate that the Aqma Clinic has implemented a waste management system in accordance with standard procedures stipulated

by applicable health and environmental regulations. Medical waste management, from sorting, collection, transportation, processing, and third-party disposal, has been carried out effectively. However, several aspects still need improvement, particularly in the separate recording and reporting of waste management costs.

According to Financial Accounting Standards Statement (PSAK) Number 201 concerning the Presentation of Financial Statements, financial statements must provide relevant, reliable, and accountable information to assist reportees in making economic decisions (Wahyuningsih et al., 2025). One important aspect of presenting relevant information is clearly separating environmental costs in the financial statements. If medical waste management costs are not recorded separately, the financial statements will be less transparent, making it difficult for management to evaluate the effectiveness of waste management and reducing accountability for the environmental impacts that occur.

Implementation Green Accounting become an important strategic approach to increase efficiency and environmental responsibility.Green Accounting is an accounting method that incorporates environmental costs and impacts into an organization's financial recording and reporting system, thereby enhancing transparency and fostering more sustainable long-term decision-making (Mualiyin & Fitriyah, 2023). However, observations indicate that Aqma Clinic has not yet implemented this approach.Green Accounting The lack of separation of environmental costs in financial reports results in a lack of control over cost efficiency and a lack of accurate data to support long-term strategic decision-making in the environmental sector.

This aligns with the findings of Rahayudi & Apriwandi (2023), who stated that structured recording of environmental costs can improve transparency and accountability in financial reports and encourage more efficient environmental management in the healthcare sector. Although the waste management process at Aqma Clinic complies with technical and operational procedures, management still needs to improve the system for recording and reporting environmental costs separately, in accordance with PSAK 201 and the principles ofGreen AccountingThis is important to ensure accountability for environmental impacts, improve clarity in financial reporting, and strengthen the clinic's ability to address sustainability challenges in healthcare.

2. Application of cost accounting in waste management

The application of cost accounting in waste management at the Aqma Clinic is still general in nature and does not yet refer to the conceptGreen AccountingThe clinic has not yet implemented specific environmental cost recording, resulting in challenges in clearly identifying, recognizing, measuring, presenting, and disclosing waste management costs in financial reports. This is consistent with research by Tambunan & Aminah (2025), which shows that most healthcare facilities have not explicitly integrated environmental costs into their financial reports, even though waste management activities have been carried out.

The following is an analysis of the application of cost accounting in waste management at the Aqma Clinic based on five main aspects**:**

a. Waste Management Cost Identification

Cost identification is the initial process in a cost accounting system which aims to identify and record the types of costs that arise in waste management. At Aqma Clinic, waste management costs are still listed as general operational costs, without any specific classification that differentiates environmental costs from other costs. Some of the waste management cost components identified by Aqma Clinic include:

1. Waste transportation costs, namely costs paid to third parties to transport medical waste from the clinic to the final disposal site.

2. Waste disposal costs, namely costs for the process of destroying medical waste using methods that comply with environmental regulations.

3. Costs of maintaining waste equipment, such as temporary waste storage areas and medical waste sorting areas.

4. Labor costs responsible for waste management, namely salaries or incentives for staff who handle the waste management process at the clinic.

Due to the lack of specific records for these costs, Aqma Clinic has difficulty conducting financial analyses regarding the cost-effectiveness of waste management.et al.,(2024) in his research also emphasized that the lack of identification and recording of environmental costs can hinder institutions in responding to environmental problems in a timely manner.

b. Recognition of waste management costs

Cost recognition is a crucial aspect of accounting practice because it determines when and how costs are recorded in financial statements. Costs related to environmental impacts, including medical waste management, must be accurately identified to reflect environmental responsibility and enhance the transparency of financial reporting.

According to the Financial Accounting Standards Statement (PSAK) 237 of 2023 concerning Provisions, Contingent Liabilities and Contingent Assets, costs that may arise from legal or constructive obligations related to environmental impacts must be recognized as provisions in the financial statements if they meet the following three criteria:

1. There is a present obligation (either legal or constructive) arising from past events.

2. t is probable that the entity will expend economic resources to settle the obligation.

3. The amount of the liability can be estimated reliably (Indonesian Institute of Accountants, 2023).

If waste management obligations arise from government regulations or contracts with third parties, the costs arising from these obligations must be explicitly recorded in a separate account as part of environmental provisions.

This is essential to demonstrate regulatory compliance and accountability for the resulting environmental impact.

Research by Arimbi & Mayangsari (2022) shows that providing good environmental information and properly recognizing environmental costs can significantly increase company value. This study, conducted on oil, gas, and coal companies, found that companies that disclose environmental information honestly and transparently can improve environmental performance by building trust with investors and stakeholders. Furthermore, properly recognizing environmental costs can also help companies make more environmentally friendly and responsible decisions regarding social and environmental aspects.

However, observations at Aqma Clinic indicate that costs related to medical waste management have not been specifically recognized as environmental. Costs such as waste transportation, infectious waste disposal, and payments to third parties are still generally recorded under "general service costs" or "operational costs" without separate classification. This situation indicates that the recognition of environmental liabilities at Aqma Clinic is not in accordance with PSAK 237, potentially reducing the transparency and accuracy of financial reports and creating legal and reputational risks if adjustments are not made immediately.

c. Measuring waste management costs

Measuring the costs of managing medical waste is an important part of implementingGreen Accounting. This process not only records actual expenses but also clearly explains how the clinic's daily activities impact the environment and how these costs can be managed more efficiently and transparently. Currently, Aqma Clinic still uses the historical cost method (past costs), which records the actual costs incurred for various medical waste management activities such as waste transportation, incineration of toxic and hazardous waste (B3), andusethird party services to destroy waste based on invoices received each month.

According to Ala & Manafe (2021), the historical cost method does not divide costs by waste type and volume, thus limiting management's ability to evaluate environmental performance and make decisions based on accurate data. This method only provides basic information about clinic expenses but is insufficient to assess whether waste management is efficient and effective. This limitation of the historical cost method arises from the lack of a cost allocation system that takes into account various important factors, such as waste type, waste quantity, and the department or department responsible for the waste.

To increase accuracy in calculating costs, Aqma Clinic can apply the methodEnvironmental Management Accounting(EMA). According to Azis et al. (2020)Environmental Management Accounting (Environmental Management Accounting (EMA) is an accounting system that identifies, collects, analyzes, and reports material and energy flows, as well as information on environmental costs and savings. This system helps organizations make environmentally and economically sound decisions. Using EMA allows hospi-

tals and healthcare facilities to more clearly identify and allocate environmental costs, including costs to prevent, control, and mitigate environmental impacts, which are typically not recorded in conventional accounting systems (Susanti et al., 2021).

By implementing EMA, Aqma Clinic can improve clarity and accountability in waste management cost reporting, making it easier for management to monitor and plan for improved waste management. This more detailed cost measurement also helps make strategic decisions that care about the environment and strengthens commitment to the principles of sustainable development.Green AccountsingOverall, the implementation of EMA at Aqma Clinic is expected to address the shortcomings of the historical cost method currently used, strengthen environmental cost measurement, and positively impact the environment and the health of the surrounding community.

d. Presentation of waste management costs in financial reports

Presenting financial statements is the final stage in the reporting process and is crucial for ensuring that the information presented can be understood and utilized optimally by stakeholders. In the context of waste management at Aqma Clinic, waste management costs are not currently presented separately. Instead, these costs are summarized as general operating costs without a clear, specific classification. This results in the environmental cost contribution not being explicitly reflected in the financial statements, even though medical waste is a material aspect due to its health risks and compliance with environmental regulations.

Based on the Statement of Financial Accounting Standards (PSAK) 201 Presentation of Financial Statements, financial statements must provide relevant and reliable information regarding the financial position, financial performance, and cash flows of an entity. Paragraph 31 of PSAK 201 explains that information in financial statements should assist users in making economic decisions and reflect the content of transactions, not just their legal form. This means that if waste management costs significantly affect the financial condition or opinions of interested parties, this information must be clearly presented in the financial statements.

Furthermore, paragraph 114 of PSAK 201 states that financial statements (CALK) must be structured and logically prepared to fully explain accounting policies and other important information not directly included in the main report. In the case of Aqma Clinic, information regarding medical waste management costs should be included in the CALK. This information includes the type of medical waste generated, how it is managed, the costs of collaboration with third parties, and proof that the clinic is aware of regulations such as Minister of Health Regulation Number 18 of 2020. This disclosure demonstrates a responsible attitude and commitment to accountability and social responsibility (Ministry of Health of the Republic of Indonesia, 2020).

According to Oktaviani et al. (2024), healthcare institutions that do not specifically account for environmental costs in their financial reports tend to struggle to demonstrate their commitment to sustainability and transparency to stakeholders. Meanwhile, Baga & Paramitalaksmi (2024) emphasize that

institutions that classify and disclose costs separately have advantages in terms of accountability, ease of auditing, and public trust.

In practiceGreen AccountingSeparating environmental costs in financial statements demonstrates the integration of financial reporting and environmental responsibility. Therefore, it is recommended that Aqma Clinic begin recording medical waste management costs in a dedicated account, for example, "Medical Waste Management Costs," and present them separately in the income statement and CALK. This will increase the transparency of financial statements, facilitate the audit process, and demonstrate that the clinic complies with PSAK 201 and applicable environmental regulations.

e. Disclosure of waste management costs in financial statements

Disclosure of waste management costs is a crucial aspect of financial reporting, particularly for healthcare institutions like Aqma Clinic. This information provides an overview of the costs incurred for environmental waste management activities, typically included in the notes to the financial statements or other management reports. The absence of specific disclosures regarding waste management costs can make it difficult to analyze waste management efficiency and make it difficult to determine more optimal management strategies in the future (Baga & Paramitalaksmi, 2024).

Under more advanced environmental accounting practices, institutions like Aqma Clinic are encouraged to begin transparently disclosing environmental costs. This includes:

1. The amount of costs allocated specifically for waste management
2. Cost details include transportation, disposal and maintenance of waste management facilities.
3. Long-term cost estimates related to waste management
4. The financial impact of environmental policies implemented by the clinic
5. Comparison of actual costs with budget as an efficiency evaluation tool (Anis et al., 2020).

Detailed disclosure of waste management costs is crucial for analyzing the effective and efficient use of funds. Without separate disclosure of waste costs, assessing financial impact and social and environmental responsibility is limited. Therefore, Aqma Clinic must begin adopting environmental accounting practices that include transparent disclosure of environmental cost information (Safarina, 2020).

Separating environmental costs from other operational costs is crucial to facilitate performance evaluation and compliance with Environmental Accounting Standards. Disclosure of environmental costs can help control waste management costs within established budgets. This supports the return on investment of more strategic long-term waste management decisions (Natasya et al., 2024).

Furthermore, the applicable Accounting Standards, as approved by the Financial Accounting Standards Board (DSAK) of the Indonesian Institute of Accountants (IAI), emphasize the importance of transparency and information disclosure to enhance organizational accountability. By adhering to these standards, Aqma Clinic can improve its financial reporting system to align with best practices and environmental accounting standards. With more transparent and structured disclosures, Aqma Clinic not only meets its financial reporting obligations but also increases stakeholder trust, which supports environmental sustainability efforts (DSAK IAI, 2021).

6. CONCLUSION AND SUGGESTIONS

CONCLUSION

Based on the author's research at hospital clinics, supported by theories from literature and scientific journal references, it can be concluded:

1. Technically, medical waste management at the Aqma Clinic has been implemented in accordance with Standard Operating Procedures (SOPs), which include sorting, storage, transportation, and disposal, in collaboration with authorized third parties. This demonstrates compliance with the technical regulations for medical waste management established by the government and the health department.
2. In terms of financial recording and reporting, waste management costs have not been included separately and systematically in the accounting system. These costs are still grouped under general operational costs without being classified as environmental costs, reducing information transparency and complicating the process of evaluating the effectiveness and efficiency of waste management from a financial perspective.
3. Implementation*Green Accounting*has not been running optimally. The identification, recognition, measurement, presentation, and disclosure of environmental costs have not been comprehensively implemented using an environmental accounting approach. The clinic still uses a historical cost approach without a recording system capable of comprehensively reflecting environmental burdens.
4. The lack of separate environmental cost classification in financial statements hinders transparency and sustainability-oriented decision-making. Information regarding the environmental burdens borne by an entity is not adequately communicated to management, stakeholders, and regulators, which can impact corporate accountability and social responsibility.
5. To improve efficiency, accountability and sustainability, Aqma Clinic needs to develop an environmental cost measurement and reporting system based on*Environmental Management Accounting*(EMA). This approach allows for the presentation of cost information in a more accurate and relevant manner, including taking into account hidden costs.*(Hidden Costs)*and potential savings from more effective waste management. EMA implementation supports the principles*Green Accounting*and can

strengthen the Clinic's commitment to sustainable development in the health sector.

SUGGESTION

Based on the results of research on the application of Green Accounting in medical waste management at the Aqma Cikampek Clinic, there are several suggestions that can be used as a reference for further research:

1. Further researchers can develop models that integrate the system*Green Accounting*with digital technology based on the Hospital Management Information System (SIMRS). This approach is important to increase efficiency in recording and reporting waste costs in a systematic manner.*real-time.*By using the approach*Mixed Method*research can evaluate the system's technical effectiveness while statistically assessing its impact on environmental cost transparency.
2. Comparing Aqma Clinic with other health facilities both in Karawang and outside the area that have implemented*Green Accounting*in a more structured manner. This comparative study is important to identify*best practice*obstacles in implementation and success factors that can serve as a reference for other clinics.
3. Developing an environmental cost estimation or prediction model based on*historical trends*, type of waste and volume of medical services provided. This model can use quantitative approaches such as linear regression, time series analysis or statistical approaches.*Activity-Based Costing* (ABC) based on service units. The goal is to provide an accurate and sustainable picture of long-term environmental budget projections.
4. Analyzing the impact*Green Accounting*towards the ideals, reputation, and level of public trust in the clinic. In the context of increasing social responsibility and legitimacy of health institutions.
5. Reviewing the application of accounting standards such as PSAK 1 Revision 2024 and PSAK 237 in the process of recording and disclosing waste costs, especially in private clinics that do not yet have a separate environmental cost classification.

References

Ala, H. M., & Manafe, M. W. N. (2021). Environmental Accounting Analysis at SK Lerik General Hospital, Kupang City.*Journal of Policy Innovation*, *6*(1), 31–38.

Anatara News. (2025).*Medical waste dumped in Citarum, Karawang DLH will take action against the perpetrators*. Anatara News. https://www.antaranews.com/berita/4569942/limbah-medis-dibuang-di-citarum-dlh-karawang-akan-tindak-pelakunya

Anggraeni, T. B. (2024). Literature Review: Application of Environmental Accounting in Hospital Waste Management in Java.*The World of Knowledge*, *8*(2), 40–52.

Anis, V. M., Sabijono, H., & Walandouw, S. K. (2020). Application of Environmental Accounting in the Management of Production Waste at the Tuna Canning Company PT. Samudra Mandiri Sentosa Bitung.*Going Concern: Journal of Accounting Research*, *15*(3), 360–365.

Arimbi, A. I. S., & Mayangsari, S. (2022). Analysis of environmental accounting disclosure, environmental performance and environmental costs on company value in oil, gas & coal companies.*Trisakti Journal of Economics*, *2*(2), 1103–1114. https://doi.org/10.25105/jet.v2i2.14594

Azis, I., Widiawati, A., & Nur, A. A. (2020). Analysis of the Implementation of Environmental Management Accounting (EMA) in Improving Business Eco-Efficiency (Case Study at Ibnu Sina Hospital YW-UMI Makassar City).*AKMEN Scientific Journal*, *17*(2), 242–253.

Badjuri, A., Jaeni, J., & Kartika, A. (2021). The role of corporate social responsibility as a moderator in predicting profitability and company size on tax aggressiveness in Indonesia: a study of legitimacy theory.*Journal of Business and Economics*, *28*(1), 1–19.

Baga, M. P., & Paramitalaksmi, R. (2024). Analysis of the Implementation of Environmental Accounting for Medical Waste Management at Yogyakarta City Hospital in 2020–2023.*Journal of Equinomy*, *6*(3), 703–709. https://doi.org/10.36985/3w1qg127

Chotijah, S., Muryati, D. T., & Mukyani, T. (2017). Implementation of hospital waste management policy at Sultan Agung Islamic Hospital, Semarang City.*Law and Civil Society*, *7*(3), 223–236. https://doi.org/10.26623/humani.v7i3.1429

Darsani, H., Amelia, R., & North Sumatera Correspondence Author, U. (2023). Analysis of the Application of Environmental Accounting in Hospital Waste Processing (Case Study of Dr. Pirngadi Regional General Hospital, Medan City).*Journal of Research and Scientific Works*, *1*(5), 319–331.

Dondokambey, G. Y. (2012). Analysis of Accounting Treatment and Allocation of Environmental Costs at PT Aspex Kumbong.*Infestation*, *8*(1), 63–80. https://doi.org/10.21107/infestasi.v8i1.1255

Dowling, J., & Pfeffer, J. (1975). Organizational legitimacy: Social values and organizational behavior. *Pacific Sociological Review*, *18*(1), 122–136. https://doi.org/10.2307/1388226

DSAK IAI. (2021). *Exposure Draft: General Guidelines for Disclosure of Non-Financial Information*. Indonesian Institute of Accountants.

Fajriansyah, I., Yunita, S., Atmojo, C. P., & Fauziah, M. (2021). The pandemic is not over yet: manage your medical waste well.*Proceedings of the National Seminar on Community Service, LPPM UMJ*.

Guan, L., Hansen, D. R., & Mowen, M. M. (2009).*Cost Management*. South-Western Cengage Learning.

Guno, Y. S. A. (2023).*Effectiveness of environmental cost control at Kutoarjo Blue Cross Hospital*. Atma Jaya University Yogyakarta.

Hasan, M., Harahab, T. K., Hasibuan, S., Rodliyah, I., Thalhah, S. Z., Rakhman, C. U., Ratnaningsih, P. W., Inanna, Mattunruang, A. A., Herman, A. Nursaeni, Yusriani, Nahriana, Ra. Silalahi, S., H. D., Ulfah, Y. F., & Arisah, N. (2022). *Qualitative Research Methods*. Tahta Media Group.

Ministry of Health of the Republic of Indonesia. (2020).*Minister of Health Regulation Number 18 of 2020 concerning Management of Medical Waste at Regional-Based Health Service Facilities*. Ministry of Health.

Kusuma, A., Asmeri, R., & Begawati, N. (2019). Analysis of the Implementation of Environmental Accounting in Waste Management and Social Responsibility at the Bukittinggi National Stroke Hospital.*Articles from the Faculty of Economics, Ekasakti University, Padang*, 1–15.

Larasati, R., Rofingatun, S., Jeana, C., & Oeghoede, A. (2020). Analysis of the Application of Environmental Accounting to Hospital Waste Management (Empirical Study at Hospitals in Jayapura City).*Accounting Research Unit: ARU Journal*, *1*(1), 33–42.

Mualiyin, M., & Fitriyah, H. (2023). Analysis of Green Accounting as Accountability of Hospitals. *Academia Open*, *8*(2), 10–21070. https://doi.org/10.21070/acopen.8.2023.1377

Natasya, R. A., Idrus, H., & Anwar, A. (2024). Environmental Accounting Analysis of Waste Management at Hikmah Hospital, Makassar City.*BJRM (Bongaya Journal For Research in Management)*, *7*(2), 29–40. https://doi.org/10.37888/bjrm.v7i2.625

Oktaviani, F., Attariqa, C. K., Pramesti, S. S. E., Soebianto, M. J., Jennuri, M. Y. E., Kusumaningrum, N., Maharani, A. A., Citradewi, C. C. C., Kirana, S. P., & Tarigan, W. A. (2024).*Accounting for Future Sustainability*. SIEGA Publisher.

Parmawati, R. (2019).*Economic Valuation of Natural Resources & the Environment Towards a Green Economy*. Brawijaya University Press.

Radar Sukabumi. (2021).*Medical Waste in Karawang Reaches 22 Tons per Day*. Radar Sukabumi. https://radarsukabumi.com/jawa-barat/karawang/limbah-medis-di-karawang-capai-22-ton-per-hari/#google_vignette

Rahayudi, A. M. P., & Apriwandi, A. (2023). Environmental Performance, Environmental Costs and Financial Performance: (Empirical Study on Companies Listed on the Indonesia Stock Exchange in the Manufacturing Sector for the 2019-2021 Period).*Owner: Accounting Research and Journal*, *7*(1), 774–786. https://doi.org/10.33395/owner.v7i1.1334

Refiyani, A., & Putra, S. S. (2023). Application of Environmental Management Accounting in the Waste Management Process at the Mental Hospital of West Java Province.*Indonesian Accounting Research Journal*, *3*(2), 119–130.

Safarina, R. (2020). Analysis of the Application of Environmental Accounting to Waste Management at Jombang Complementary Hospital.*SENMAKOMBIS: Dewantara National Seminar on Economics and Business Students*, *4*(2), 71–76.

Suhariono, & Hariyati, R. (2020).*Management of Hazardous and Toxic Waste (LB3) in Health Service Facilities/Fasyankes*. Uwais Inspiration of Indonesia.

Sukirman, A. S., & Suciati. (2019). Application of environmental accounting to the management of hazardous and toxic waste (B3) at Dr. Wahidin Sudirohusodo General Hospital, Makassar.*Journal of Applied Accounting Research*, *3*(2), 89–105. https://doi.org/10.5281/zenodo.3837685

Susanti, S., Baehaqi, A., & Firman, M. A. (2021). Analysis of the Implementation of Environmental Accounting at the Surabaya Hajj General Hospital in the Perspective of Maqashid Syariah.*Journal of Islamic Accounting and Finance*, *9*(2, October), 91–111.

Tambunan, P. H., & Aminah. (2025). Application of Green Accounting to Waste Management in Private Hospitals in Bandar Lampung.*JEMSI (Journal of Economics, Management, and Accounting)*, *11*(2), 681–695. https://doi.org/10.35870/jemsi.v11i2.3819

Validnews. (2025).*Medical waste management costs increased sharply at the beginning of the year*. Validnews. https://validnews.id

Wahyuningsih, T., Herlin, H., & Hidayah, N. R. (2025). Analysis of the Implementation of Financial Reports Based on SAK of the Palm Oil Farmers Group of Kud Sriwijaya Village Sp 3 Pelakat Tinggi Regency of Musi Banyuasin South Sumatera.*Journal of Accounting, Management and Digital Business*, *4*(1), 89–94. https://doi.org/10.37676/jambd.v4i1.7392

Wijayanto, A., Winarni, E., & Mahmudah, D. S. (2021). The Influence of Environmental Accounting Implementation.*Yos Soedarso Economics Journal*, *3*(1), 99–136.