



Analysis Implementation of Green Accounting in Medical Waste Management at RSUD dr. Agoesdjam Ketapang

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ABSTRACT

This study aims to determine how green accounting at RSUD dr. Agoesdjam Ketapang is implemented and what barriers are faced by RSUD dr. Agoesdjam Ketapang in implementing green accounting. The application of green accounting can provide information about the extent to which an organization has a positive impact or negative impact on the environment around it. This study is qualitative research with a case study approach. Data is collected by interviewing hospital employees and analyzing existing reports and relevant documents. This study shows that dr. Agoesdjam Ketapang Hospital has implemented the concept of green accounting, but the application has yet to be carried out perfectly. Implementing green accounting in the hospital is also considered good, with minimal obstacles in managing environmental costs. RSUD Dr. Agoesdjam Ketapang is expected to identify costs following the Hansen and Mowen environmental cost concept. This is expected to provide more detailed information related to environmental costs and become a form of corporate accountability for the environmental costs that have been spent. What distinguishes this research from previous research is the location of the research site, which is at RSUD dr. Agoesdjam Ketapang, this study discusses the obstacles to the implementation of green accounting by RSUD dr. Agoesdjam.

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1. INTRODUCTION

Environmental cleanliness issues are a significant concern, particularly in Indonesia, as evidenced by a lack of public awareness of the cleanliness of their surroundings. According to the Ministry of Environment and Forestry's National Waste Management Information System (SIPSN) (MENLHK, 2022), the annual waste generated reached 33.8 million tons. Managed trash reached 61.53 percent, with waste reduction at 14.39 percent and garbage handling at 49.12 percent. If not properly managed, medical waste, liquid waste, and residual hazardous and toxic materials (B3) generated by healthcare institutions such as hospitals, health centers, and clinics can harm human health and pollute the environment—the national capacity to treat medical waste.

According to Government Regulation Number 24 of 2005 concerning Government Accounting Standards (SAP), financial statements are organized records that give information about an entity's financial condition and transactions. Article 5 of Minister of Finance Regulation No. 76/PMK.05/2008 outline Public Service Entities' Guidelines for Accounting and Financial Reporting. The regulation allows BLUs to create other accounting systems, such as financial accounting, fixed asset accounting, and cost accounting. These innovative systems have the potential to improve the administration of BLU.

An entity must communicate detailed information to improve public trust in the company's administration. As a result, BLU is expected to be able to submit a supplemental report in its main financial statements for management purposes, which will contain accountability for executed environmental care initiatives. BLU is expected to be able to provide more extensive information on environmental issues by issuing special reports to the public (Mujiono, 2022). In this way, transparency is supposed to improve accountability and strengthen the relationship between the entity and society in light of environmental concerns. Green accounting originated in the accounting profession in response to the rise of environmental challenges emerging from operational activities.

Green accounting has been around in Europe since the 1970s. Green accounting is a concept that emphasizes the efficient, effective, and sustainable use of resources to benefit society (Choiriah & Lysandra, 2023). Green accounting is also defined as identifying, prioritizing, measuring, or qualifying environmental expenses and incorporating them into decision-making processes.

Green accounting can provide information on the organization's positive or negative influence on the environment. Green accounting can also be used in public hospitals, which are public facilities (Deegan C.M., 2003). Green accounting is still in its early stages in the health sector, as it was initially used for profit-driven businesses, whereas hospitals are service-oriented.

Research on the application of green accounting in hospitals has previously been conducted; however, what distinguishes this research from previous research is the location of the research, namely at RSUD dr. Agoesdjam Ketapang Regency, where this hospital is located in an area that is easily accessible to the community, and the large size of the hospital allows RSUD dr. Agoesdjam accommodates many patients while also producing much waste. Besides geographical disparities, the researchers will highlight challenges to using green accounting by RSUD dr. Agoesdjam has yet to be addressed in prior studies. This study aims to determine the impact of green accounting on medical waste management created by RSUD dr. Agoesdjam. In addition, it is important to understand RSUD Dr. Agoesdjam's challenges when implementing green accounting.

2. METHODS

This study employs a qualitative method, utilizing a case study methodology. The case study technique examines a particular occurrence in a natural setting (Merriam & Tisdell, 2015). This method provides in-depth insight into the research topic. It enables researchers to investigate the subtleties and complexities of the phenomenon by examining one or a small number of cases. This research data was gathered through interviews with informants about medical waste management activities and environmental costs, including Mr. A, Head of Non-Medical Support, and Mrs. H, Hospital Treasurer. In addition to conducting interviews, observation and documenting were used to aid data analysis. According to Miles and Huberman (1984) in Sugiyono (2016), qualitative data analysis is carried out interactively and continually until all aspects are completed and no substantial more information is available. Data analysis activities include data reduction, presentation, and verification of data results.

3. RESULTS AND DISCUSSION

Implementing Green Accounting for Waste Management at RSUD Dr. Agoesdjam Ketapang

RSUD dr. Agoesdjam Ketapang, as one of the government institutions that offers healthcare to the local population, would undoubtedly generate garbage throughout its operations. To control the waste generated, the business must integrate environmental accounting as a supporting tool for operational activities, notably waste management. This is critical for raising awareness among hospitals that have utilized the environment. Based on waste data and environmental costs incurred by RSUD dr. Agoesdjam Ketapang, the following conclusions can be drawn regarding the acceptability of environmental cost identification, recognition, measurement, presentation, and disclosure:

a. Identification

Identifying an action or occurrence to identify an account or item can be classified into two categories: expense and asset.

Hansen and Mowen (2009) developed the concept of environmental accounting, which is still used by accountants today to prepare reports on waste management costs or environmental costs. Environmental costs are classified into environmental prevention, environmental detection, external failure, and internal failure costs.

Hansen and Mowen (2009) divide the concept of environmental cost accounting into four categories after separating environmental costs from operational costs: environmental prevention costs, environmental detection costs, internal environmental failure costs, and external environmental failure costs. If the elements connected to environmental expenses at RSUD Dr. Agoesdjam Ketapang are contrasted with Hansen and Mowen's classification of environmental costs, the following will be illustrated:

Table 1: Comparison of Environmental Cost Allocation.

No.	Hansen & Mowen Concept	RSUD dr. Agoesdjam Ketapang
1.	Environmental prevention costs	Environmental prevention costs
	a. Developing an environmental management system	a. Third-party expenses
	b. Conducting environmental studies	b. Health care expenses
	c. Auditing environmental risks	c. Office cleaning fees.
	d. Recycling products	

	<ul style="list-style-type: none"> e. Selecting suppliers f. Designing products g. Conducting environmental research h. Evaluating and maintaining pollution control devices. 	
2.	Environmental detection costs <ul style="list-style-type: none"> a. Developing performance metrics b. Measuring pollution levels c. Verifying performance d. Auditing environmental operations e. Inspecting processes and goods f. Conducting pollution tests. 	Environmental detection cost <ul style="list-style-type: none"> a. Maintenance costs for the incinerator equipment.
3.	The external cost of failure <ul style="list-style-type: none"> a. Receiving medical treatment due to air pollution b. Losing sales owing to negative environmental reputation c. Cleaning up contaminated soil d. Cleaning up spilled oil e. Cleaning up polluted lakes 	The external cost of failure <ul style="list-style-type: none"> a. No environmental failure expenses were identified.
4.	The Internal cost of failure <ul style="list-style-type: none"> a. Obtaining a waste license b. Maintaining pollution equipment c. Operating pollution-reducing equipment d. Recycling waste materials. e. Toxic waste management and disposal. 	The internal cost of failure <ul style="list-style-type: none"> a. Expenditure for waste treatment and disposal services.

Source: processed by researchers (2023)

Based on the table above, it is clear that RSUD dr. Agoesdjam Ketapang has yet to classify environmental expenses associated with waste treatment following the concepts described by Hansen and Mowen. Even at this point RSUD dr. Agoesdjam Ketapang has incurred expenses for a variety of environmental operations.

According to Mujiono (2022), "the classification of expenses spent by RSUD dr. Haryoto Lumajang, if carried out based on the concept of Hansen and Mowen, only consists of preventative costs, environmental detection costs, and internal failure costs." Based on this, it is advised that the hospital implement an environmental cost report based on the environmental cost classification given by Hansen and Mowen. During this process, hospitals can change the report details based on the specific sorts of environmental expenditures.

b. Recognition

RSUD dr. Agoesdjam Ketapang recognizes environmental expenses using the accrual basis approach, which means that cost recognition occurs before the payment obligation begins and payment is made. Mrs. H, the treasurer of RSUD Dr. Agoesdjam Ketapang, stated the following:

"For recognition, we follow the accrual basis. There are agreements with third parties. So the amount we have to pay is set from the beginning."

According to researchers' findings, the waste treatment costs at RSUD dr. Agoesdjam Ketapang are assigned to account No. 51 Waste Treatment Services Expenditure and Waste Destruction Expenditure. This information is presented in the financial accounts following government accounting rules, utilizing the accrual method. This process begins with asset recognition before the asset is received, followed by expense recognition once the obligation to pay has happened. It was previously stated that charges associated with environmental management have separate accounts or account numbers. The following compares PSAK No. 1 Year 2017 measurements to those of RSUD Dr. Agoesdjam Ketapang.

Table 2 Comparison of The Waste Treatment Cost Recognition

PSAK No. 1 of 2017	RSUD dr. Agoesdjam Ketapang
Recognize an item as an element if:	RSUD dr. Agoesdjam Ketapang recognizes all waste management-related transactions and allocates them to waste treatment services and medical waste destruction expenditures, shown in the balance sheet report. Agency expenditures are recognized on an accrual basis in accordance with government financial accounting standards, and waste treatment costs are recorded separately.
a. Future economic gains are likely to flow to or from the entity.	
b. The item's value or cost can be accurately measured.	

Source: processed by researchers (2023)

Based on the comparison above, it can be stated that RSUD dr. Agoesdjam Ketapang has complied with PSAK No. 1 of 2017 by properly recognizing all waste management costs. The agency has implemented SAK-based financial rules using the accrual basis method, making recording expenses easier.

c. Measurement

RSUD Dr. Agoesdjam Ketapang measures waste management by referring to past expenditures and using monetary units, with measurements occurring when the treasurer issues cash in the form of rupiah based on the amount acquired. Mrs. H, the treasurer of RSUD dr. Agoesdjam Ketapang, stated the following:

"We already have a bill; for example, if one ton is weighed, one kilogram equals Rp. 50,000. We use historical costs."

The following section describes comparing the measurements between between PSAK and RSUD dr. Agoesdjam Ketapang:

Table 3: Comparison of The Waste Treatment Cost Measurements

PSAK Paragraf 99 & 101 of 2015	RSUD dr. Agoesdjam Ketapang
Measurement is the process of establishing how much to recognize and include in each financial statement element on the balance sheet and income statement. Choosing a specific measuring basis is critical in this procedure. In general, institutions employ historical cost as one of several measurement bases.	At RSUD Dr. Agoesdjam Ketapang, costs are measured using historical data and monetary units in rupiah. The cost of cooperating with other parties is calculated per kilogram. RSUD dr. Agoesdjam Ketapang has followed the processes outlined in the Basic Framework for the Preparation and Presentation of Financial Statements (KDPPLK) and Government Accounting Standards (SAP), specifically employing historical costs.

Source: processed by researchers (2023)

According to the discussion, RSUD Dr. Agoesdjam Ketapang measures waste management costs in accordance with PSAK paragraphs 99 and 101 of 2015. In particular, the measurement of waste management expenses based on historical costs is comparable with the purchase price at the time of purchase, as shown in the budget under account No. 51 Waste Management Services Expenditure and Waste Destruction Expenditure.

d. Presentation

The presentation of environmental costs is the stage in which the entity voluntarily reports all of its environmental operations. According to paragraph 14 of PSAK No. 1 (2013 Amendment) 2015, "Some entities also present financial statements and value-added statements that focus on environmental aspects, especially in industries where environmental factors are considered important, and employees are considered a significant group of report users." Such reports go outside the scope of financial accounting regulations. RSUD Dr. Agoesdjam Ketapang balance sheet now includes an environmental cost presentation. As stated by Mrs. H, treasurer of RSUD Dr. Agoesdjam Ketapang, below:

"That means expenditures are recorded on the balance sheet. If there are any cases, they will be noted in the financial statements; for example, if anything is not reflected in the balance sheet, it will be included in CALK. Environmental costs are included on the balance sheet."

PSAK 2015 clarified that presenting financial statements, operational results, entity cash flows, and financial conditions must be fair. Fair presentation strives to make financial accounts more understandable, relevant, and comparable. RSUD Dr. Agoesdjam Ketapang has successfully adopted PSAK No. 1. Additionally, the agency has handled trash effectively, followed all existing regulations, and has always been environmentally conscious. RSUD dr. Agoesdjam Ketapang has demonstrated its commitment to environmental protection through effective waste management.

e. Disclosure

Disclosure of environmental costs in waste treatment at RSUD Dr. Agoesdjam Ketapang, a government institution that solely reports and publishes hospital performance.

Environmental charges were disclosed in RSUD dr. Agoesdjam Ketapang's financial accounts. Mrs. H, treasurer of RSUD Dr. Agoesdjam Ketapang, stated the following:

"We prepare financial reports monthly, semester, and yearly basis. But not exactly this. So environmental cost reporting is not distinct; it includes all financial systems and reports."

The disclosures made by PSAK and RSUD Dr. Agoesdjam Ketapang are compared below:

Table 4: Disclosure of Waste Treatment Costs

PSAK No. 1 of 2017	RSUD dr. Agoesdjam Ketapang
Entities have the authority to explain in the notes to the financial statements the basis of measurement used in the compilation of the financial statements, as well as any other relevant accounting policies adopted, in order to improve comprehension of the financials.	The balance sheet report, which has become an integral element of the financial statements, contains disclosures about environmental costs at RSUD dr. Agoesdjam Ketapang.

Source: processed by researchers (2023)

PSAK No. 1 of 2017 states that disclosures in the notes to financial statements are used to help readers comprehend the financial statements. RSUD Dr. Agoesdjam makes disclosures in the financial accounts but merely provides an overview of financial performance accomplishments. The explanation of environmental charges is clearly stated on the balance sheet.

RSUD Dr. Agoesdjam Ketapang has yet to fully apply the notion of environmental accounting. This is evident in the identification of costs that do not align with the notions presented by Hansen and Mowen (2009), which define environmental costs based on preventive costs, environmental detection costs, external failure costs, and internal failure costs. The measurement, recognition, presentation, and disclosure steps are consistent with applicable principles—furthermore, RSUD dr. Agoesdjam Ketapang has a separate account for waste management expenditures, but it has yet to report particularly on environmental accounting, as environmental accounting reporting is currently voluntary.

RSUD dr. Agoesdjam Ketapang tracks environmental management costs as Waste Management Services Expenditure-Medical Waste Destruction Expenditure, incurred when third-party billing occurs. In 2023, the third-party responsible for medical waste destruction at RSUD, Dr. Agoesdjam Ketapang, was only billed thrice. The costs for environmental management were recorded as follows.

Table 5: Expenditure for Waste Management Services and Medical Waste Destruction
RSUD dr. Agoesdjam Ketapang 2023

Month	Description	Expenditure (Rp)
May	Expenditure for Waste Management Services and Medical Waste Destruction	281.767.950.00
October	Expenditure for Waste Management Services and Medical Waste Destruction	1.490.748.340.00
November	Expenditure for Waste Management Services and Medical Waste Destruction	264.399.840.00
Total		2.036.916.130.00

Source: processed by researchers (2023)

Table 5 shows that the overall expense for waste management services - medical waste annihilation in 2023 was Rp2,036,916,130.00. The statistics in the table show that in May, RSUD dr. Agoesdjarm Ketapang spent Rp281,767,950.00 to control medical waste. This is a third-party bill comprising payments for four months, from January to April. Then, in October, waste management expenditure increased by 429.06% to Rp1,490,748,340.00. This dramatic increase was caused by an increase in inpatients and outpatients over five months from May to September. Meanwhile, expenditure decreased by 82.26% in November compared to October, totaling Rp264,399,840.00 overall. This decline was caused by the fact that the November payment was only intended to cover one month's expenditures, specifically the payment for waste management services in October.

Issues related to Green Accounting Implementation at RSUD dr. Agoesdjarm Ketapang.

In terms of trash management, RSUD dr. Agoesdjarm Ketapang works with third parties to manage solid garbage, while the agency has its own incineration unit for liquid waste. The challenge in handling medical waste at RSUD Dr. Agoesdjarm Ketapang stems from third parties who are occasionally unable to collect waste. Mr. A, Head of Non-Medical Support, explained the following:

"There are certain obstacles, but they are not particularly big. Obstacles in the sense that when we call them, there is already a lot of waste, and the vehicle is damaged, so it may take a while, but otherwise there is nothing."

According to the interview results, Dr. Agoesdjarm Ketapang does not confront any significant challenges when managing medical waste from RSUD. The only stumbling block is that third parties are unable to collect waste owing to vehicle damage.

Green accounting, also known as environmental accounting, is still a relatively new concept in hospitals. This is because environmental accounting was first used in commercial organizations that perform industrial operations, such as manufacturing and mining industries. In contrast, hospitals are primarily concerned on providing services. Even so, hospitals generate trash that might harm the environment.

RSUD Dr. Agoesdjarm Ketapang, as it is known, has implemented environmental accounting, albeit not fully. The implementation of environmental accounting undoubtedly faces challenges; nevertheless, according to RSUD dr. Agoesdjarm Ketapang, there are no barriers to implementing environmental accounting when controlling environmental costs. Mrs. H, the treasurer of RSUD Dr. Agoesdjarm Ketapang, stated the following:

"There are no obstacles as long as the SPJ comes in."

Based on the outcomes of these interviews, it is clear that there are no substantial hurdles to the implementation of environmental accounting at RSUD Dr. Agoesdjarm Ketapang. If there is an existing Road Order (SPJ), it will be used to determine environmental costs.

The biggest obstacle to the use of environmental accounting is the lack of norms or laws requiring an entity to report on environmental costs (Kusumawardhany, 2022). Furthermore, the belief that environmental accounting is unimportant to an entity's financial existence serves as a justification for failing to report on environmental costs. The application of green accounting (environmental accounting) within the scope of the hospital is still relatively new to be implemented; of course, it will be difficult to apply in hospitals given that environmental accounting is more commonly applied to manufacturing

companies, but RSUD dr. Agoesdjam Ketapang can apply the concept of green accounting well and with the fewest obstacles found in the field.

4. CONCLUSION

Based on the results of the analysis and discussion that has been carried out by researchers regarding the application of environmental accounting (green accounting) in medical waste management at RSUD dr. Agoesdjam Ketapang and the obstacles felt by agencies in the application of environmental accounting (green accounting), it can be concluded that RSUD dr. Agoesdjam Ketapang has successfully implemented the concept of green accounting and carried out waste management in accordance with procedures as an effort to prevent adverse effects on environmental quality. The agency has incurred waste management costs, but RSUD dr. Agoesdjam Ketapang has not classified these costs into special items in accordance with the classification proposed by Hansen & Mowen (2009); however, RSUD dr. Agoesdjam Ketapang has recognized, measured, presented, and disclosed these costs in accordance with applicable standards or rules. This demonstrates that RSUD dr. Agoesdjam Ketapang has not been able to use environmental accounting (green accounting) correctly or comprehensively.

RSUD Dr. Agoesdjam Ketapang has successfully implemented waste management and green accounting practices. Despite experiencing delays in waste collection by third parties due to vehicle issues, this impediment is not deemed severe. The hospital's application of green accounting is likewise regarded well, with few barriers to managing environmental expenditures. This is shown in the positive response of RSUD treasurer, Dr. Agoesdjam Ketapang, to the process of identifying environmental costs based on the Road Order (SPJ). Overall, RSUD dr. Agoesdjam Ketapang has successfully surmounted these obstacles, demonstrating that green accounting can be implemented efficiently in the hospital setting.

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