

Analysis of the Application of Environmental Accounting in Solid Waste Management in Karawang Health Center

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ABSTRACT

This research aims to determine the application of environmental accounting in waste management activities as well as the stages of accounting treatment of environmental costs by referring to PSAK 2015 No.1 carried out by the Karawang Community Health Center. The method used in this research is descriptive qualitative with a case study approach. The results of the research found that the Karawang Community Health Center had incurred costs related to waste management and had managed its waste well, namely in collaboration with third parties. However, the storage of solid or B3 waste at the Karawang Community Health Center is still not in accordance with applicable standards. And in the accounting treatment stages, the Karawang community health center has not fully carried out these stages because there is no specific presentation of environmental cost reports, therefore the Karawang community health center has not implemented environmental accounting properly. The inhibiting factors in implementing environmental accounting at the Karawang Community Health Center are HR (Human Resources), level of understanding and development.

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INTRODUCTION

Environmental pollution in Indonesia is very worrying. Waste from activities such as industry, hospitals, health centers and hotels are some of the causes of environmental pollution. The figure for environmental pollution in Indonesia in 2023 according to data from the Indonesian Statistics Agency will reach 84,096. Meanwhile, the pollution figure in West Java in 2023 is 5,957. The Environmental Pollution Control Association (APPLI) was founded on 10 December 2008 in response to concerns over the issue (Susanti et al., 2021).

Reciprocal interaction between industry and the community environment is a fundamental component of an industry or agency. In this case the two cannot be separated. Efforts to increase efficiency and production often cause damage to nature, such as polluted air, water and land. This has a very negative impact on the environment and can even cause environmental damage (Agung et al., 2022).

Like industry, community health centers are health facilities that produce liquid and solid waste, both medical and non-medical (Wulandari et al., 2021). The presence of a community health center can have both positive and negative influences on society. The existence of a community

health center in the community has a major positive impact on overall community health. Apart from providing benefits to the community, community health centers also have a negative impact because most of their operations involve toxic and dangerous materials, which if not handled properly can produce hazardous waste.(Dahlia et al., 2021).

More than half of the world's population is at risk from inadequately treated medical waste, exposing them to environmental, labor and public health risks(Vallée, 2024). Therefore, community health centers and institutions or businesses operating in the health sector have a quite important and significant role in protecting the environment. Therefore, as a form of responsibility as an institution that contributes to environmental preservation, community health centers are obliged to manage medical waste resulting from their operational activities.(Ariani & Darmawan, 2021).

Waste management is part of the community health center's responsibility towards the environment. Minister of Health Regulation Number 18 of 2020 concerning Medical Waste Management for Regional-Based Health Service Facilities states that waste processing is carried out in order to optimize the management of medical waste from service facilities in an area and reduce the risk of environmental and health pollution. impact and misuse of medical waste from health service facilities. Therefore, this waste management program must be implemented carefully and precisely in order to preserve the environment(Nafisah Barokah et al., 2022).

The implementation of medical waste management certainly needs to use accounting to calculate the costs of environmental management activities. Environmental costs refer to the financial and non-financial impacts arising from operations that impact environmental quality(Samsiar et al., 2020). Appropriate methodical calculation procedures are needed to estimate funds related to environmental management. Social accounting, which addresses social obligations, gave rise to the field of accounting known as environmental accounting(Indrawati & Intan Saputra Rini, 2018).

One strategy for dealing with environmental problems is through the use of environmental accounting in the operational activities of community health centers. The goal of environmental accounting is to evaluate how we manage the environment by considering its economic costs and benefits(Dahlia et al., 2021). The advantages of using environmental accounting allow businesses or organizations to manage waste products and operational results more systematically, prioritizing the reduction of hazardous materials disposed of by minimizing their impact on the environment(Anam, 2020).

There are several previous studies related to the application of environmental accounting. Like research(Nafisah Barokah et al., 2022)stated that the Mamajang Makassar Community Health Center had carried out waste management well and had carried out accounting treatment stages for waste management costs. However, the Mamajang Makassar Community Health Center has not reported separately regarding its environmental costs. Other research, namely(Darsani & Amelia, 2023)in his research, found that Dr. Pirngadi from Medan City has managed waste effectively and has allocated environmental costs based on Hansen and Mowen's theory. However, the stages of environmental cost accounting treatment are still not in accordance with PSAK 2015 No. 1. Where environmental costs have not been specifically presented in the financial statements or have not been disclosed in the Notes to the Financial Statements (CALK). The difference between this research and previous research is comparing research results that refer to Hansen and Mowen's theory, PSAK 2015 and presenting related factors that influence the implementation of environmental accounting.

This research chose the research object, namely the Karawang Community Health Center which operates in the health service sector. Where the Karawang Community Health Center produces medical and non-medical waste in its operations. To prevent community health center waste from polluting the environment, it must be managed properly. When waste management is carried out there will definitely be costs incurred. Based on this, researchers are interested in researching more deeply regarding the issue of implementing environmental accounting for waste management activities as well as the stages of accounting treatment for environmental costs carried out at the Karawang health center. This research tries to reveal the application of environmental accounting in community health center financial reports.

THEORETICAL BASIS

Legitimacy Theory

Legitimacy theory according to Dowling and Prefer (1975) explains how organizations act in relation to behavioral limitations towards the environment. Legitimacy theory states that the success or failure of a company depends on the company's behavior towards its environment (Nurhidayat et al., 2020). The practice of disclosing corporate responsibility should be carried out in such a way that the company's activities and performance can be accepted by society, in accordance with legitimacy theory (Hirdariani, Atma et al., 2022).

Environmental Accounting

According to (Ikhsan Arfan, 2009:14) in (Nuwa et al., 2023) Environmental accounting is a term that has wide application. Environmental accounting can complement revenue, financial and corporate accounting. The use of environmental accounting as a management communication tool for internal company decision making is the main emphasis. "Environmental accounting" (EA) refers to the process by which companies or government organizations incorporate environmental costs into their accounting processes. Environmental accounting is the process of preventing, reducing and/or avoiding negative impacts on the environment, starting from opportunities and ending with events that repair the damage caused by these actions. (Indrawati & Intan Saputra Rini, 2018).

Environmental Costs

According to Hansen and Mowen (2009) environmental costs are costs caused by poor environmental conditions. Includes costs related to the development, detection, repair and prevention of environmental damage (Samsiar et al., 2020). Environmental costs are all sacrifices, both financial and non-financial, that companies make to maintain natural health. Environmental costs based on the theory of Hanssem and Mowen (2009) are divided into four types: environmental prevention costs, environmental detection costs, internal and external environmental failure costs. (Saputra et al., 2019).

Waste

According to the Indonesian Ministry of Health in 2004 in (Nuwa et al., 2023) Medical and non-medical waste, both liquid and solid, is waste found in health centers. Medical solid waste is usually generated from operational activities starting from treatment rooms (inpatient health centers), general polyclinics, dental clinics, maternal and child health polyclinics, pharmacies and laboratories. Dangerous chemical and radioactive bacteria can be found in liquid medical waste produced from the operation of inpatient rooms and emergency rooms (ER) at community health centers. (Nafisah Barokah et al., 2022).

RESEARCH METHOD

This research uses qualitative research with a case study approach. This research is applied to investigate the state of something in an experimental or natural environment (Sujaya & Septiawati, 2023). The focus of this research is on the costs of managing solid waste at the Karawang health center and how it is reported in the health center's financial reports. Participants in this research were workers at the Karawang community health center. The data collection techniques used in this research are observation, interviews and documentation. The data source used in this research is primary data. The primary data in this research are the results of direct observations of research objects and in-depth interviews with relevant respondents.

The data analysis techniques used in this research are method triangulation and source triangulation techniques. Where researchers conduct interviews with different informants to obtain the necessary data and this data is strengthened by direct observation and documentation. From the data obtained, the researcher then explained his findings from observations of the BLUD budget report prepared by the Karawang community health center. Apart from that, it is related to various types of waste, the rules for managing it and the allocation of waste management costs in the Karawang Community Health Center BLUD report.

RESEARCH RESULT

Karawang Community Health Center Medical Waste

The operational activities of the Karawang Community Health Center every day certainly produce waste. As explained above, this waste is divided into two, namely solid waste and liquid waste. Based on interviews conducted by researchers with the sanitarian section at the Karawang Community Health Center, the medical waste generated from its operational activities is solid medical waste and liquid medical waste. Where solid medical waste at the Karawang Community Health Center is in the form of syringes, expired medicines, medicine bottles, bandages, cotton wool, hand gloves and blood sugar checking tools. Then the liquid medical waste at the Karawang Community Health Center can be said to be small. Because the Karawang Community Health Center is a non-inpatient health center. Therefore, the liquid medical waste produced is very small and is not infectious. Apart from producing medical waste, the Karawang Community Health Center in its operational activities also produces non-medical waste. Non-medical waste generated in operational activities is in the form of household waste such as food scraps, food wrappers, drink bottles and so on.

Karawang Community Health Center Medical Waste Management

Medical waste management procedures at the Karawang community health center are based on the results of interviews obtained by researchers, there are 2 management processes, namely solid medical waste management and household waste management. For the management of solid medical waste at the Karawang Community Health Center, it has collaborated with a third party, namely PT. Madivest Services. PT. Madivest Services is a company engaged in waste management services located in Cikampek sub-district, Karawang district. However, before transporting the waste produced, the Karawang Community Health Center first sorts it, namely by providing different waste bins for infectious and non-infectious waste. Then, after the trash can is full, the waste is put into a bag and then stored in the waste storage area. The bags used to store waste also use different colors in accordance with applicable regulations, namely yellow for infectious waste and black for non-infectious waste. After that, the plastic containing the waste is stored in a waste storage area located next to the health center to be transported and managed by a third party.

The place for storing medical waste at the Karawang community health center is a rectangular building and is very closed, and there is no cooler or freezer to store medical waste. Transportation of solid medical waste to the Karawang Community Health Center is carried out every 3 months and a maximum of once every 6 months depending on the amount of waste produced. Then for liquid medical waste the Karawang community health center does not manage it. Because considering that the amount of waste produced is small and not infectious, the liquid medical waste is channeled following normal water flow and is not channeled into the IPAL (Waste Water Treatment Plant). Meanwhile, for the management of non-medical waste or household waste, the Karawang Community Health Center collaborates with the local RT head for the process of transporting the waste up to the waste disposal at the TPU (Public Disposal Place).

Stages of Accounting Treatment for Environmental Costs at the Karawang Community Health Center

The treatment of costs for environmental management requires sequential and detailed stages and refers to existing accounting regulations. Accounting stages based on 2015 PSAK No. 1 Presentation of Financial Reports, including identification, recognition, measurement, presentation and disclosure. Based on the results of the researcher's interview with the treasurer, the following is the environmental accounting treatment at the Karawang community health center:

1. Identification

Karawang Community Health Center has two categories of waste, namely solid and liquid. Solid waste includes medical and non-medical waste. The costs incurred in waste management at the Karawang Community Health Center are only for payment of third party services. Meanwhile, the costs for liquid waste are not budgeted for by the Karawang Community Health Center.

2. Confession

Karawang Community Health Center recognizes any costs related to waste management resulting from its operational activities, which are recognized using the cash basis method. Where the transaction is written when the invoice is received by the health center and cash is disbursed. Costs for waste management at community health centers are recognized as goods and services expenditure in the Budget Realization Report (LRA) and as service costs in the Operational Report (LO).

3. Measurement

Measuring costs at the Karawang community health center related to environmental costs uses rupiah and refers to the realization of the previous period's budget or historical costs. Measurement occurs when the treasurer disburses cash according to the amount of waste or rubbish produced. Then it is measured in monetary units, namely a number of rupiah. This is because the garbage or waste produced by the Karawang Community Health Center is erratic.

4. Presentation

The presentation of waste management costs at the Karawang Community Health Center is still presented together with the costs of purchasing other goods and services. However, for waste management costs, the Karawang Community Health Center has its own account code. For presentation in the health center's financial reports, waste management costs are presented in the goods and services expenditure account and there is no special presentation in the financial reports.

5. Disclosure

Disclosures related to waste management costs at the Karawang community health center are not disclosed publicly, or in other words, the results of the waste management report are only reported to the health service internally. After the report reaches the Health Service, the report will then be given to the local government. Because the funds used for medical waste management at the Karawang Community Health Center are BLUD funds and of course are related to the government.

DISCUSSION

Based on the research results above, medical waste management at the Karawang Community Health Center has been carried out well, namely collaborating with third parties in its management. This is in accordance with the provisions of the Karawang Regency Environmental Service, namely that every health center is obliged to use a third party in managing the medical waste produced. However, the storage of medical waste carried out by the Karawang Community Health Center is still not in accordance with applicable standards, namely Minister of Environment and Forestry Regulation No. 56/MENLHK-SETJEN/2015.

The regulation states that "B3 waste must be stored no later than 2 (two) days, at a temperature of more than 0°C". In this case, the health center stores solid or B3 medical waste in a waste storage area for more than 2 days and at room temperature, because there is no freezer or cooler available to store the waste before transporting it by a third party. This was done because of the obstacles faced by the puskesmas in terms of costs for transporting B3 waste every day.

Based on the results of this research, it was found that the Karawang Community Health Center had provided a budget for medical and non-medical waste. This includes the health center's responsibility to the environment and support for environmental conservation. However, the stages of accounting treatment for environmental costs according to PSAK 2015 No.1, namely identification, recognition, measurement, presentation and disclosure at the Karawang community health center, have not been fully carried out. In the initial process, namely identifying community health centers, environmental costs were not identified in accordance with Hansen and Mowen's theory. Then, in the presentation process, the Karawang Community Health Center presents environmental costs together with other costs in the goods and services expenditure account and has not been presented separately in its financial reports. Apart from that, during the disclosure process, the Karawang Community Health Center has not specifically stated environmental costs.

Inhibiting Factors for Implementing Environmental Accounting at the Karawang Community Health Center

Based on the results of researchers' observations regarding the implementation of environmental accounting at the Karawang community health center, it was found that there were several inhibiting factors in implementing environmental accounting, namely:

1. **Human Resources (HR).** Human resources are the first factor that can influence the implementation of environmental accounting. Because based on the Environmental Service's statement, the existing human resources at the community health center in Karawang district are not adequate, or in other words, the human resources are not yet experts in a particular field, which often results in errors.
2. **Level of Understanding.** In this second factor, namely the level of understanding, is a fairly high factor in encouraging the implementation of environmental accounting. Where if someone or even several people do not have an understanding of something, then the action that should be taken is hampered, resulting in the action not happening or not being carried out.
3. **Coaching.** Based on the results of the researcher's interviews with the Karawang district environmental service, it was found that there were several community health centers that had not received guidance, including the Karawang community health center, which resulted in several things related to the environment not running well.

CONCLUSION

Based on the results of the analysis and discussion of the implementation of environmental accounting in the Karawang community health center, it can be concluded that the Karawang community health center has implemented waste management effectively, namely collaborating with third parties in the waste processing process. However, the storage of medical waste does not comply with applicable standards. Then, in carrying out the stages of accounting treatment for environmental costs, the Karawang Community Health Center has not fully carried out these stages. Because reports related to environmental costs have not been provided separately in the financial information for community health centers. This reflects that the Karawang community health center has not implemented environmental accounting properly.

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