

Environmental Cost Accounting Treatment and Their Effect on Financial Statements and Assessment of Sustainability Performance at PT Alove Bali

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Abstract. This research aims to find out and analyse how PT Alove Bali identifies, acknowledges, measures, discloses and presents environmental costs and to determine the effect of environmental cost accounting treatment on financial statements as well as assessment of sustainability performance. This research focuses on analysing primary data from interviews with 3 sources and observing the object of research as well as secondary data in the form of company financial statements as research supporting data. The analysis technique used is a qualitative descriptive analysis technique. This research provides results that the company has treated environmental cost accounting which consists of identification, recognition, measurement, disclosure and presentation even though the treatment is not fully in accordance with existing and supportive theories and standards. The company has recognized the cost of waste treatment even though it is still presented combined with other similar costs which are a component of production costs in the income statement. With this, the company has carried out environmental management properly so that the company has good sustainability performance for the future.

Keywords: *environmental cost accounting, environmental cost report, sustainability performance*

1. Introduction

As time goes by, environmental degradation is getting more and more marked by a decrease in the quality of the environment. This is often associated with intervention and the utilization of available resources exceeds the maximum speed of self-improvement of resources. Many companies run their business in the field of utilizing natural resources that may cause environmental problems directly or indirectly. Pollution and production waste produced must of course receive special handling in their processing as the company's efforts in environmental management and maintenance. The implementation of environmental management and maintenance will certainly raise costs. These costs are known as environmental costs. Green accounting is an accounting science in which there are activities of identifying, recognizing, measuring, disclosing and presenting costs related to company activities related to the environment [1].

Sustainability Performance is the performance of business sustainability obtained by aligning the three points of view in the form of profit, social care and environmental conservation (People-Planet-Profit) which is known as the Triple Bottom Line concept. Where the main point in this concept is being able to increase profits optimally without leaving the obligation to maintain environmental preservation and being able to create harmonious relationships with the surrounding community. One of the agricultural companies in Bali that has the potential to be directly related to the environment is PT Alove Bali.

2. Literature Review

2.1 Stakeholder Theory and Legitimacy Theory

Stakeholder theory is a theory that assumes that an entity has an obligation to provide benefits to stakeholders so that the entity does not only have a tendency towards internal interests [2]. The legitimacy of the theory states that an entity or company continuously seeks to ensure that they carry out operational activities based on the rules and norms that exist within the scope of the community within the company.

2.2 Green Accounting

Environmental accounting is a process of identifying, measuring and allocating environmental costs and incorporating cost elements into corporate decision making [3].

2.3 Purpose of Environmental Accounting Application

Basically, environmental accounting has a goal to provide information about environmental costs for business people and stakeholders [4].

2.4 Environmental Cost

Environmental costs are costs incurred by the company for waste treatment activities in an effort to improve environmental conservation and management as well as costs as a result of environmental damage due to the company's operational activities [5].

2.5. Environmental Cost Classification

Environmental costs are classified into four types [6], namely:

- a. Environmental Prevention Cost
- b. Environmental Detection Fee
- c. Environmental Internal Failure Costs
- d. Environmental External Failure Costs.

2.6. Environmental Cost Accounting Treatment

In order for data regarding environmental costs to be presented validly, correctly and accurately, it is necessary to carry out environmental cost accounting treatment in stages and systematically [7]. Environmental cost accounting treatment is as follows:

a. Identification

The identification of environmental costs will be based on Hansen and Mowen's theory.

b. Confession

In the Basic Framework for the Preparation of Financial Statements (KDPPLK), 2015 explains that recognition includes the process of establishing a pattern that will later provide economic benefits in line with a decrease in assets and an increase in liabilities that can be measured reliably, therefore the recognition process will refer to the KDPPLK.

c. Measurement

KDPPLK par. 99-100 of 2015 it is stated that measurement is a process to determine the amount (rupiah) to be recognized and accumulated in each account contained in the company's financial statements. There are several ways that can be used as a basis

for measurement, namely historical cost, current cost, realizable/settlement value, and present value [8].

d. Disclosure

In KDPPLK par. 21 explained that the financial statements also contain additional notes and schedules along with other information. The statement is intended for users of financial statements who need notes on financial statements that are relevant to the balance sheet and income statement of the company. So that the disclosure process is based on the KDPPLK [9].

e. Presentation

In PSAK 1 revision 2018 par. 14 stated that an entity can present environmental reports and value added statements, especially for entities that make the environment a significant factor. The presentation of environmental costs in financial statements can be done with four different models, namely: the normative model, the green model, the environmental intensive model and the national asset model [10].

2.7. Supporting Regulations

- a. Law of the Republic of Indonesia Number 32 of 2009 concerning Environmental Protection and Management.
- b. Law of the Republic of Indonesia Number 25 of 2009 concerning Investment.
- c. Law No. 40 of 2007 concerning Limited Liability Companies.
- d. Decision of the Capital Market and Financial Institution Supervisory Agency No: KEP-134/BL/2006 concerning the Obligation to Submit Annual Reports for Issuers or Public Companies.

2.8. Environmental Cost Report

Hansen & Mowen stated that the environmental cost report provides a breakdown of costs related to waste treatment by category containing two important results, namely the impact of environmental costs on company profitability and the amount spent for each category [11].

2.9. Sustainability Performance

The experts agreed to take the understanding agreed upon by the Brundtland Commission which states that sustainability is an activity to meet current needs without compromising future capabilities. Sustainability performance indicators consist of environmental, social and economic which have the role of helping companies, business people and stakeholders to assess how the company's operational activities contribute without interfering with sustainable development goals [12].

3. Methodology

The research model used in this research is descriptive qualitative research. This study uses primary data and secondary data. Sources of primary data used in this study were explored by conducting structured and in-depth interviews with the finance department, then with one of the staff who knew how to manage the company's environment as well as with the people living around the factory environment and direct observations about waste processing activities and documents provided. exist in the object of research. While secondary data is data that is used as a complement to primary data to be carried out by documentation studies and literature studies, such as: company documents and archives as well as from various sources of scientific work in the form of journals, presidia, and previous research that are relevant to the research to be carried out. The data analysis used in this study is an interpretive analysis method.

4. Result and Discussion

4.1 Company Environmental Management

The results of interviews conducted with Mrs. Agung as HRD staff said that the waste produced by PT Alove Bali is solid waste and liquid waste. Referring to research data that has been conducted during March to July 2021, it can be seen that PT Alove Bali has managed to the environment properly, especially in the waste treatment process as an effort to preserve the environment in accordance with the legislation.

4.2. Accounting Treatment of Corporate Environmental Costs

The research data that has been collected indicates that PT Alove Bali has treated the accounting for environmental management costs, especially waste treatment, even though there is no conformity with PSAK 1 paragraph 14 revised in 2018 or other accounting theories and standards that support this research.

a. Environmental Cost Identification

A search of the evidence that has been carried out regarding environmental costs at PT Alove Bali states that the company has not classified the costs incurred for waste processing activities as identified by Hansen and Mowen and after a search it was found that the company had recorded the expenditure transactions incurred occurs for waste treatment activities. The following is a comparison of the accounting treatment of PT Alove Bali's environmental costs with Hansen and Mowen's theory:

Table 1.
Comparison of PT Alove Bali's Environmental Costs
with Hansen & Mowen's Theory

Hansen & Mowen's Theory	PT Alove Bali
Prevention costs	Construction of waste collection tanks Daily labor salary Powder machine supply Procurement of solid waste treatment tanks Fertilizer equipment Repair of waste collection building Waste treatment machine repair Chemicals for waste treatment
Detection fee	Laboratory test Research & Development
Internal failure costs	-
External failure costs	-

Source: Processed data

b. Environmental Cost Recognition

From the results of the search that has been carried out, PT Alove Bali is in the stage of recognizing waste treatment costs using the accrual basis method and the company has recorded the costs incurred for waste processing activities into the financial statements and the company has recognized the costs of waste treatment in accordance with the KDPPLK

Table 2.

Comparison of PT Alove Bali's Environmental Cost Recognition with the KDPPLK

KDPPLK	PT Alove Bali
Expenses are recognized in profit or loss if the future economic benefits associated with a decrease in an asset or an increase in a liability can be measured reliably.	The company recognizes costs for waste treatment activities in the income statement because these activities have an effect on future decreases in assets or increases in liabilities that can be measured reliably.

Source: Processed data

c. Environmental Cost Measurement

PT Alove Bali has carried out the measurement stages quite well, namely in measuring costs in waste treatment using one of the basic measurements, namely using monetary units (rupiah) based on the costs incurred, in accounting it is called the historical cost measurement method. With this method, the real value and nominal value will be obtained according to those used by the company each period.

Table 3.

Comparison of PT Alove Bali's Environmental Cost Measurement With the KDPPLK

KDPPLK	PT Alove Bali
Measurement is done by determining the value and nominal value to be presented in the financial statements based on historical cost, current cost, realizable/settlement value and present value.	The company measures costs in general using the historical cost method including costs for waste treatment which have been measured historically.

Source: Processed data

d. Environmental Cost Disclosure

Waste treatment costs by PT Alove Bali are included as a component of production costs, but the company does not disclose waste treatment costs in the Notes to Financial Statements. So that the disclosure made by PT Alove Bali on the cost of waste treatment is not in accordance with the KDPPLK.

Table 4.

Comparison of PT Alove Bali Environmental Cost Disclosures With the Basic Framework for Compiling Presentation Financial Report (KDPPLK)

KDPPLK	PT Alove Bali
Disclosure is done by providing financial information in the notes to the financial statements as additional notes and schedules.	The company has not disclosed environmental costs and the company has not disclosed environmental costs which are classified as other similar costs in the Notes to the Financial Statements.

Source: Processed data

e. Environmental Fee Presentation

PT Alove Bali applies environmental financial reporting using a normative model because the company presents the costs incurred for waste treatment activities in other similar accounts and becomes one of the components of production costs in the income statement. PT Alove Bali has not presented environmental costs in this case the cost of waste treatment in a special report in the form of an environmental report such as the statement in PSAK No.1 paragraph 14 of 2018.

Table 5.
Comparison of PT Alove Bali's Environmental Cost Presentation
With PSAK No.1 paragraph 14 of 2018

KDPPLK	PT Alove Bali
Companies can provide additional reports in the form of environmental reports and value added statements, especially for industries where environmental factors play an important role.	The company has not presented costs related to waste treatment in the environmental report, but is presented in the income statement in other similar cost accounts as a component of the company's production costs.

Source: Processed data

4. 3. Environmental Cost Reporting

From the financial report data belonging to PT Alove Bali, a report on the environmental costs of waste processing activities was prepared according to the environmental quality category.

Table 6.
PT Alove Bali
Environmental Cost Report for Period Ended December 31, 2020
(In rupiah)

Activity	Cost	% of Total Operating Cost
Prevention costs:		
Employee training costs	-	-
Daily labor salary (70%)	93.745.750	6,2 %
Fertilizer equipment cost	67.345.000	4,4 %
Electricity & water cost (35%)	30.193.407	2%
Repair of waste collection tanks	-	-
Repair of sewage treatment tanks	17.963.100	1,2 %
Chemicals for waste treatment	229.498.222	15,2 %
Detection fee		
Laboratory test	-	-
Research & development	-	-
Internal failure costs:		
External failure cost:		
Total	438.745.479	29 %

Source: Processed data

The calculation of environmental costs is obtained from the search results through the general ledger. The data in table 4.9 can indicate that environmental costs for 2020 only occur in prevention costs of 29% of total operational costs. This percentage figure has become the ideal percentage of environmental costs, which is 20% or more calculated from the company's total operating costs.

4.4. Environmental Accounting in the Assessment of Company Sustainability Performance

The results of interviews with HRD staff explained that PT Alove Bali has carried out environmental management activities, especially waste management properly, this is in accordance with government regulations regarding the application of environmental accounting in private companies regulated in Government Regulation No. 47 of 2012 which is a follow-up to the Limited Liability Company Law No. . 40 of 2007. The law states that every company that runs its business in fields related to natural resources is socially and environmentally responsible.

The application of environmental accounting at PT Alove Bali can increase the efficiency of waste treatment, reduce and prevent a decrease in environmental quality which can indirectly improve sustainability performance according to research conducted by [12]. When the balance of entity values and social values can be created, then the legitimacy gap can be minimized so that the potential for protests from stakeholders against the company can also be suppressed and PT Alove Bali has had good sustainability performance in addition to the company's profitability and operational stability can also be improved.

5. Conclusion

The results of the data analysis that have been carried out and the discussion that has been described in the previous chapter resulted in a conclusion that the company has carried out waste treatment properly and environmental cost accounting treatment in this case the cost of processing waste at PT Alove Bali has been applied but not fully in accordance with the theory and standards. existing and supportive accounting. From the aspect of stakeholders and legitimacy that shows the positive impact of good waste management activities, PT Alove Bali has had a significant sustainability performance in the future even though there is no sustainability report made by the company.

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