ANALYSIS OF ENVIRONMENTAL ACCOUNTING ACTUALIZATION ON ENVIRONMENTAL COSTS AS AN EFFORT FOR SOCIAL RESPONSIBILITY AT PT. PN XIV SOUTH SULAWESI

Andi Nurrahma Gaffar[1)], Muhammad Ikram. S[2)], Indra Kusumawati[3)], Muh. Abdi Imam[4)],

[1]IAIN Palopo
E-mail: andinurrahmagaffar@iainpalopo.ac.id
[2]IAIN Paopo
E-mail: muhammadikrams@iainpalopo.ac.id
[3]Universitas 45 Mataram
E-mail: indrakusumawati.mtr@gmail.com
[4]IAIN Palopo
E-mail: muh_abdi_imam@iainpalopo.ac.id

Abstract

The objective of this study is to examine the Company's Environmental Accounting Actualization by identifying, acknowledging, quantifying, presenting, and reporting environmental expenses in financial statements. The study was carried out at PT. PN XIV South Sulawesi. This study employs primary qualitative data via interviews and secondary quantitative data derived from firm financial records. The findings indicate that corporations acknowledge the operational expenses associated with trash management (environmental costs) as a part of their production costs, taking into account that waste is generated as a by-product of the manufacturing process. Currently, there are no explicit regulations in accounting standards for the disclosure of environmental concerns in financial reports. Therefore, each firm has the freedom to apply its own policy in this regard.

Keywords: *Environmental Cost Accounting, Environmental Costs, Waste Processing Costs, Application of Environmental Cost Accounting.*

1. INTRODUCTION

Environmental issues are significant and need careful consideration. At now, it is impossible to ignore the impact of environmental health, and there is evidence to suggest that it has been harmed (Hadi, 2012). Humans are the primary perpetrators of environmental degradation, particularly via their commercial activities. As a result, the Government enacted the 2007 PT Law to govern the obligations of companies in implementing Corporate Social Responsibility. A firm is a kind of commercial organization that engages in operations with the primary goal of generating profit.

In contemporary times, several issues emerge as a result of the degradation of the human habitat. Unintentional environmental harm arises from human activities undertaken to satisfy their daily need. Disregarding the importance of environmental quality marks, the first stage of human future's demise (Rusdina, 2015). The primary causes of environmental harm are a lack of attention and inadequate management methods in meeting demands. Indeed, people experience the consequences of environmental devastation indirectly, as shown by the regular occurrence of illness outbreaks, which may also be classified as man-made catastrophes. Environmental issues are a significant occurrence that necessitates specific focus from the government, consumers, and investors. The government demonstrates its commitment to environmental preservation with the enactment of Law Number 32 of 2009, which focuses on environmental protection and management.

Utilizing the principles of environmental accounting is a prudent decision for reducing expenses associated with environmental issues. Environmental accounting in business operations involves the identification and inclusion of environmental expenses in accounting records (Santoso, 2015). Efficiency in environmental management may be enhanced by adopting a cost and benefit approach, which helps minimize cost leakage and optimize resource utilization.

Accounting is the measurement and tracking of the effects resulting from the interaction between a firm and its customers or users of its goods. Environmental accounting emphasizes the social dimensions and the consequences of technical operations, such as the use of corporate equipment or raw materials that result in the generation of hazardous industrial waste. This subject is crucial, particularly in Indonesia, since there is an excessive number of organizations, including both state-owned and private enterprises, that are causing harm to the environment via the improper management of production waste throughout their commercial operations. Some firms need a specific allocation of handling fees for this purpose.

Accounting has evolved to become more than just a method for processing data. It now serves as a tool for presenting, assessing, and categorizing a company's environmental responsibilities. Its purpose is to provide accurate and meaningful information for important stakeholders. An organization and accountants must prioritize environmental concerns because to the significant number of stakeholders, both internal and external, who have a vested interest in the environmental performance of the organization (Ikhsan, 2009: 3).

Environmental accounting is a field of accounting that quantifies the actual expenses associated with inputs and company operations, ensuring cost effectiveness. Additionally, it may be used to evaluate the costs related to quality and service. The primary goal is to ensure compliance with environmental protection laws and identify strategies to minimize environmental effects by improving efficiency. Environmental accounting requires a comprehensive understanding of firms or other organizations that get advantages from the environment. The advantages received have evidently influenced the advancement and growth of the company's operations. Hence, it is essential for enterprises and other organizations to intensify their efforts in including sustainable environmental preservation (Ikhsan, 2009: 11). Environmental Accounting serves the purpose of identifying, quantifying, comparing, acknowledging, approving, and displaying the environmental expenses spent in order to effectively manage the environment. In this scenario, the generation of trash and the contamination of the environment are prevalent consequences of current environmental degradation. (Nilasari, 2014).

PT. PN XIV South Sulawesi is a government-owned corporation that engages in the palm oil plantation industry. In addition to the production of semi-finished oil, PT. PN South Sulawesi also generates garbage as a by-product of its operations. It is important to note that improper management and lack of accountability for industrial waste may have adverse effects on the environment and nearby populations.

PT. PN South Sulawesi now has a Wastewater Treatment Plant (*Instalasi Pengolah Air Limbah*/IPAL) as part of its operating procedure. The purpose of this IPAL is to oversee the disposal of trash generated by manufacturing operations. PT. PN South Sulawesi incurs expenditures throughout the waste management process to fund waste management initiatives.

In this scenario, the corporation acknowledges that the expenses associated with managing trash are included into the overall production costs. This is because waste is generated as a by-product of the manufacturing process. The notes to the company's financial statements in the trial balance include details on the environmental expenses, including the waste management operating costs.

2. LITERATURE REVIEW

2.1 Environmental Accounting

According to the American Accounting Association in Soemarso (2013), accounting is the systematic process of recognizing, quantifying, and communicating financial data in order to provide accurate and decisive evaluations and choices for the information users. This term encompasses two distinct meanings:

1) Accounting operations refer to the process of finding, measuring, and reporting accounting information.
2) Accounting is valuable because it provides economic information that is intended to be helpful in evaluating and making choices about the relevant business organization.

According to Law no. 32 of 2009 on Environmental Protection and Management, the environment is defined as the combination of physical space, objects, forces, conditions, and living organisms, including humans and their behavior, that impact the ongoing existence and well-being of humans and other living creatures.

The United States Environmental Protection Agency defines environmental accounting as consisting of two primary components. Environmental accounting incurs direct costs that affect the whole organization, sometimes known as "Personal Costs". Furthermore, environmental accounting encompasses the unaccounted expenses of a corporation, including those related to individuals, communities, and the environment.

Environmental accounting, also known as environmental cost accounting, refers to the inclusion of information related to environmental benefits and costs in a company's accounting processes. The purpose is to prevent the need for costly corrective actions (Sari et al., 2017).

Environmental accounting is a systematic approach that enhances the effectiveness of the accounting system by recognizing, documenting, and communicating the consequences of environmental deterioration and pollution. The acceptance of environmental accounting economic and computing processes is contingent upon the incorporation of capital sources and the inclusion of environmental costs, which are deemed acceptable expenses within economic and computational processes (Rounaghi, 2019).

2.2 Advantages and Goals of Enforcing Environmental Accounting

Environmental accounting refers to the process of quantifying and categorizing all expenses related to the environment and include them in a company's yearly financial reports. Once organizations have clearly recognized these expenses, they are likely to seize chances to decrease their environmental footprint (Sari et al., 2017).

The paper by Indrawati & Intan Saputra Rini (2018) outlines the aims of environmental accounting as follows:

1) Environmental accounting serves as a tool for managing environmental issues. Environmental equilibrium demonstrates the suitability of environmental conservation. Investments in environmental management use environmental accounting data, which includes charges related to environmental management facilities and overall environmental protection costs.
2) environmental accounting serves as a means of communicating with the public. Environmental accounting serves as a valuable tool for informing the public about the

environmental effects and outcomes. Public feedback is crucial in influencing organizations' approach to environmental management.

2.3 The functions and roles of environmental accounting

Ikhsan (2009) categorizes the purpose and role of environmental accounting into two distinct forms:

1) Internal functions refer to functions that are specifically associated with the internal parties of the firm. Internal parties refer to the entities involved in the operation of a company, including customer homes, production households, and other service providers. The firm leadership is the primary player and determinant in this internal function.
2) An external function is a function that pertains to elements of financial reporting. Companies must priorities the disclosure of environmental conservation activity outcomes in the form of accounting data in this function. The revealed information is a quantitatively measurable outcome of initiatives aimed at conserving the environment.

2.4 Environmental Costs

Ikhsan (2009) defines environmental costs as the repercussions of a company's operations that impact the quality of the environment. Environmental costs include all readily apparent expenses, including garbage. Environmental accounting involves the calculation of several finance components, such as:

1) Business operational costs include expenses related to the depreciation of environmental facilities, the maintenance of environmental facilities, fees for contracts to operate environmental management facilities, labor costs for managing environmental facilities, and costs for waste management contracts (including recycling).
2) Price of recycling when it is sold.
3) Cost of research and development expenditures include the whole expenses incurred for materials and skilled individuals, as well as other labor involved in the creation of ecologically sustainable materials, products, and industrial facilities.

2.5 Phases of Environmental Cost Accounting Processing

The accounting handling of environmental expenses is determined by the Government Accounting Standards Statement (PSAP) No. 1 of 2010, which includes:

1) Determine

the source of reference as Sukirman and Suciati (2019). Identification is necessary in order to ascertain the expenses associated with environmental management. After identifying these economic events, they are documented as a sequence of the company's financial actions. Each organization has distinct environmental cost categories, leading to varying approaches in establishing environmental accounting expenses. The cost grouping choices in this study are determined by environmental costs, as outlined in the theory proposed by Hansen and Mowen (2009).

2) Acknowledgment

Yanto (2007) states that the discovered pieces are acknowledged as accounts and labelled as charges. Expenditures made to mitigate environmental pollution might be classified as expenditures in the profit and loss statement.

Furthermore, PSAK 57 permits the recognition of expenditures before to incurring costs in order to comply with legal requirements or other constructive factors, with respect to estimated liabilities, contingent liabilities, and contingent assets.

Once the expenditures have been identified, they are documented as an expense account once a variety of advantages and values have been obtained.

3) Quantification

Companies often quantify the quantity and worth of expenses accrued for environmental management using pre-established monetary units. Determining the value and quantity of expenses may be achieved by examining the actual costs spent in the previous period, ensuring accurate amounts and values that align with the specific requirements of each period. Measurement, as defined by Sukirman and Suciati (2019), is the process of quantifying an item by assigning numerical values or units of measurement to convey a certain meaning of the thing.

4) Demonstration

The expenses associated with environmental management are shown in the general and management subsections, along with other comparable unit prices. As a result of the absence of consistent standards on the distribution of environmental funding, expenses may be included in yearly financial statements using various account designations. According to paragraph 14 of the Government Accounting Standards (PSAP) Number 1, the aim of financial reports is to satisfy the overall requirements of the majority of consumers.

PSAK No. 1 of 2015 mandates that financial reports accurately depict the financial situation, financial performance, changes in equity, and cash flows in order to accomplish the goals of the financial statements.

Haryono and Mulyani (2013) identified four complete models that may serve as alternative environmental financial reporting models. These models can be roughly categorized as follows:

a) The normative model acknowledges and documents environmental costs as a complete entity, specifically within the framework of a single comprehensive account together with other associated accounts. These costs are included into specific sub-units of cost accounts in the financial report.
b) The green model attributes certain costs and benefits to a pristine environment. Whenever a corporation utilizes resources, it is obliged to bear expenses that are equivalent to the amount of resources used. This process compels the company to assume the expenses associated with resource utilization, despite the insufficiency of recognition and disclosure mechanisms. Subsequently, the company must report these costs in separate financial statements, distinct from the parent financial statements, in order to elucidate the environmental financing within the company.
c) The environmentally intensive approach necessitates the allocation of funds towards environmental protection and reclamation expenses. Expenditures will be classified as environmental investments, while assets related to the environment will not be subject to depreciation. This means that the financial statements, excluding separate disclosures for financing, will also include records of fixed assets related to the environment, which are considered investments for the environment.
d) The national asset model shifts the accounting viewpoint from the micro size of individual companies to the macro scale of the whole country. This allows for a greater focus on accounting for the supply and movement of natural resources. This approach highlights the need of firms not just considering environmental concerns in their financial disclosures, but also seeing environmental funding as a valuable national resource that carries a national duty.

5) Disclosures

Environmental accounting information refers to data presented in the framework of environmental accounting. It is considered a kind of voluntary disclosure as there are no established regulations controlling environmental financial reporting. The purpose of this disclosure is to demonstrate to the public the manner in which the corporation engages in activities related to social and environmental problems (Sukirman & Suciati, 2019).

3. RESEARCH METHOD

Researchers use a qualitative descriptive research model. The descriptive technique is a research approach that aims to produce a clear and detailed image or description of a situation without any intervention or manipulation of the thing under study. The objective of this descriptive study is to provide methodical, objective, and precise depictions of facts, attributes, and connections among phenomena. These depictions are then analyzed, and the research findings might offer suggestions for future requirements.

The study incorporates both qualitative and quantitative data. Qualitative data refers to original data that is in a non-numerical form and is obtained from relevant firms. Qualitative data may be obtained by conducting interviews with relevant stakeholders to get information about the process of adopting environmental cost accounting methodologies directly to study subjects. Quantitative data, which is derived from the firm, is a kind of secondary data that is expressed in numerical form. The data is sourced from firm financial filings, which serve as proof to substantiate the study.

The data gathering methods used in this thesis include documentation procedures and interview strategies. The documentation approach involves gathering data directly from the study site at PT. PN XIV South Sulawesi by examining corporate records and reports relevant to the research. Additionally, data and information are collected via the use of books, journals, and the internet. The interview approach involves direct communication with the accounting department in order to get information pertaining to the issues addressed in this study.

Once the required data has been gathered, the author will use descriptive analysis to examine the data. This analysis will enable the author to provide a comprehensive overview of the process involved in finding, recognizing, measuring, disclosing, and presenting environmental cost accounting at PT. PN XIV South Sulawesi.

4. RESEARCH AND DISCUSSION

Utilization of Environmental Cost Accounting

At the company PT. PN Environmental costs are the expenses that firms spend due to their activities that impact the quality of the environment. Mr. Afruzi further said that cost environment refers to expenses that have a direct influence on the environment and may affect environmental activities.

PT. PN XIV South Sulawesi generates two types of garbage: solid waste and liquid waste. According to Mr. Tio's interview, the garbage consists of liquid waste and solid trash, with the solid waste being in the form of empty bunches (tankos), palm kernel shells, and coir or fiber.

When it comes to controlling environmental expenses, the firm incurs expenditures that are categorized as direct costs in the trial balance, depending on the findings of the inquiry. Mr. Jimmy further affirmed that environmental expenditures are accounted for in the direct cost. The environmental costs include expenses related to employee wages, benefits, and social costs, as well as costs for maintaining machines and equipment, electrical installations, and water and electricity bills. Additionally, it encompasses costs for raw materials, equipment, lubricating oil, and other miscellaneous expenses.

This analysis presents a comparison of the environmental expenses borne by PT. PN XIV South Sulawesi with the established theory proposed by Ikhsan in 2009.

Based on the aforementioned comparative findings, it is evident that the environmental costs associated with categorizing environmental costs are identical to those reported by Arfan Ikhsan.

1) Acknowledgment

The environmental expenditures are distributed randomly on a monthly basis and are included in the financial report as part of the trial balance. Mr. Jimmy said that the expense of processing trash is assigned in a manner that corresponds to the current month and is recognized in the financial statements as part of the Trial balance.

The company's environmental expenditures are allocated from the yearly planned costs, which are regularly assigned throughout the current month. Below is a table listing the acknowledgments given by PT. PN XIV South Sulawesi.

Table 1 Process of Recognition

Year	Budget (Rp)	Realization (Rp)
2022	1.143.700.310	691.045.112
2021	475.500.720	355.657.125
2020	580.516.520	430.105.720

Data Origin: Processed Data, 2023

Although the head of production and engineering affairs received budget funds for a one-year period at the start of the accounting period, the cash was essentially in the form of a budget allocation (cost plan) and could not yet be considered a cost. This is because the funding was for the monthly processing of waste in the environment, and the total expenses will only be calculated and reported in the trial balance report at the end of the accounting period. The expenses will be recognized as an expense only at the end of the period.

2) Quantification

PT. PN XIV South Sulawesi uses the preceding period's budget realization as a reference for determining the value and quantity of expenditures expended for environmental finance. The corporation anticipates that the budget will be achieved within the specified term. The past serves as a reliable basis for assessing the value and quantity of expenses associated with environmental management in a given era, ensuring that the appropriate amount and value are achieved in accordance with current requirements. Here, we will provide a table that may be used to measure and evaluate the expenses related to the environment.

The company's viewpoint is corroborated by Suwardjono and Mulyani's (2014) assertion that corporations often gauge the expenses associated with environmental management by using predetermined units and corresponding monetary values. You will get the appropriate quantity and worth for the actual corporation in each interval, according to your specific requirements.

3) Demonstration

The expenses associated with waste management in the case management environment at PT. PN XIV South Sulawesi are combined with other comparable expenditures and categorized as sub-direct costs. According to Mr. Jimmy, the following is true:

The firm includes waste processing expenses in its financial report under the direct cost account in the trial balance. These expenses include payroll costs, power and water prices, machine and equipment maintenance costs, and other miscellaneous expenditures.

Haryono identifies four models for conveying environmental costs: the normative model, the green model, the ecologically intensive model, and the national asset model. Here we shall provide a comparison of how Haryono and PT. PN XIV South Sulawesi present environmental costs.

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Table 2 presents a comparison of the ways in which environmental costs are presented.

<table>
<tr><th>No</th><th>Presentation Model According to Haryono</th><th>Presentation Model According to Company</th></tr>
<tr><td>1</td><td>Normative Model: this model recognizes and records environmental costs as a whole, namely within the scope of one general account together with other related accounts. These other allied costs are included in certain account sub-units in the financial statements.</td><td rowspan="4">Environmental costs are presented as a whole in the direct costs account together with other similar costs in the trial balance.</td></tr>
<tr><td>2</td><td>Green Model: The green model assigns certain costs and benefits to a clean environment.</td></tr>
<tr><td>3</td><td>Environmental Intensive Model: Expenditures will be presented as investments in the environment while environmental related assets are not depreciated.</td></tr>
<tr><td>4</td><td>National Asset Model: Apart from caring about the environment in expressing it in accounting, companies also have an obligation to interpret environmental financing as a national asset.</td></tr>
</table>

Data Origin: Processed Data, 2023

The chart clearly indicates that corporations are more inclined to follow the Normative approach when it comes to reporting environmental expenses. As a result, these companies have effectively assessed, recognized, presented, and revealed information about waste management.

PSAK No. 1, which pertains to the presentation of financial statements, specifies in paragraph 07 the components of financial statements. It states that these statements include reports on financial activities. A comprehensive statement has the following elements: Balance sheet (also known as statement of financial position), profit and loss statement, statement of changes in equity, cash flow statement, and comment on financial report.

The inclusion of environmental expenses in financial reports may be achieved via the use of various account names, since there are no established guidelines for account names that specifically indicate the allocation of funds for environmental purposes as mandated by the firm.

4) Disclosures

PT. PN XIV South Sulawesi disclosed the use of environmental accounting for finance purposes. Financial reports conform to a normative framework that acknowledges and documents environmental expenses as a collective entity, namely within the context of a single

overarching account together with other associated accounts. These expenses are accounted for in specific sub-unit cost accounts in the financial statements.
Due to the absence of regulations governing environmental disclosure, the company determines the disclosure of environmental costs based on its own policy. This is in line with PSAK No. 1 paragraph 09, which states that companies have the option to provide additional information, such as reports on the environment and value-added statements. This is particularly relevant for industries where environmental factors are significant and where officers are considered important users of such reports PT. PN South Sulawesi District Court is involved in this matter.

Discussion

a. Acknowledge

PT. PN PSAK is an acronym that stands for "Pernyataan Standar Akuntansi Keuangan," which translates to "Statement of Financial Accounting Standards" in English. Currently, there is a lack of legislation pertaining to the acknowledgment of environmental expenses. However, these expenses are governed by the PSAK regulations concerning liabilities and assets.

Nevertheless, the company's viewpoint is corroborated by Anne's perspective in the degreasing accounting article in Mulyani (2013). According to Anne, the allocation of financing for environmental cost management occurs at the start of the period and is only acknowledged once the corresponding value has been received.

b. Quantification

PT. PN XIV South Sulawesi uses units of measurement to quantify the monetary value of environmental expenses. These costs have been predetermined and the amount spent is deducted from the budget allocated for the previous month. Currently, PSAK does not have regulations in place for the cost measurement environment. However, it does have regulations in the PSAK for measuring assets and liabilities that are valued based on historical cost.

c. Demonstration

PT. South Sulawesi District Court The corporation categorizes environmental expenditures as direct costs in its trial balance report.

Companies should display environmental cost reports independently from other financial statements to have a comprehensive understanding of the expenses associated with environmental management. This tool is valuable for management to get information on the environmental expenses that the firm has accumulated throughout the accounting period.

d. Disclosures

In this instance, PT. PN XIV South Sulawesi has made public the financial report about the expenses incurred for waste management. These costs are specifically accounted for in the trial balance report, with the inclusion of environmental charges in the direct cost account.

It is important for companies to include environmental cost data in their financial reports, such as the balance sheet, profit and loss statement, statement of changes in equity, cash flow statement, and notes to financial statements. Compiling financial reports on environmental expenses can facilitate communication between management and stakeholders who are concerned about the environment.

5. CONCLUSION

Based on the above explanation, the following inferences may be made:

a) According to the corporation, environmental expenses refer to the costs that have a negative effect on the environment and may influence business operations. Arfan Ikhsan's perspective aligns with the notion that environmental expenses are a direct result of corporate activities that impact the quality of the environment.

b) PT. South Sulawesi District Court XIV has used funds associated with a certain undertaking. This setting aligns with the notion proposed by Ikhsan in 2009.

c) PT. PN XIV South Sulawesi acknowledges that environmental expenses are included as direct production costs. The environmental expenses projected for the current month were anticipated and included in the budget at the start of the term.

d) Companies use a normative paradigm when discussing environmental expenses. This approach comprehensively identifies and documents the overall environmental expenses, including both a main account and several associated accounts. The expenses incurred by the allies are accounted for in certain sub-categories within the financial report.

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