Analysis the Implementation of Environmental Accounting as a Factor in Business Sustainability (a Case Study of PT. Trigunapratama Abadi)

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Abstract

PT Trigunapratama Abadi is a company engaged in the management of hazardous and toxic waste (B3) in accordance with KBLI 38220. It has implemented environmental accounting through various strategies to reduce negative impacts on the environment. This study analyzes the application of environmental accounting as a review of business sustainability at PT Trigunapratama Abadi through the Triple Bottom Line concept. The researcher used a qualitative research model with a descriptive approach; the types of data used in this study were secondary and primary data. The data analysis technique employed, based on the views of Miles and Huberman, involves an interactive qualitative data analysis process conducted continuously until the data is considered saturated. The research results indicate that the implementation of environmental accounting at PT Trigunapratama Abadi already reflects the Triple Bottom Line concept, which encompasses economic (profit), social (community), and environmental (planet) aspects. However, this study also identified challenges during the initial implementation phase, particularly regarding employee understanding and adjustments to the administrative recording system. PT Trigunapratama Abadi has properly allocated its environmental expenses in accordance with PSAK No. 1 of 2015, Presentation of Financial Statements and has prepared a Special Financial Accounting Report, which is specifically explained in the Notes to the Financial Statements (CALK).

Keywords: Environmental accounting, business sustainability, triple bottom line, PSAK No.1 of 2015.

Introduction

Indonesia has a diverse industrial sector structure, ranging from manufacturing and mining to agriculture and the service sector. Key sectors include the automotive, textile, electronics, oil and gas, and hazardous waste management industries, as well as agriculture and plantation activities. In practice, production activities in these sectors generally generate waste as a result of their operational processes (Mauludi et al., 2025). Therefore, waste management is a crucial aspect for mitigating and controlling negative environmental impacts. In the waste management services sector, for example, companies naturally aim to achieve greater profits. The higher the profit target, the more the company grows in a positive direction. (Wati et al., 2021).

In this context, business sustainability and environmental conservation present challenging issues that are sometimes dilemmatic and appear to be at odds with one another. The concept of business sustainability no longer focuses solely on short-term profitability but also takes into account long-term environmental and social impacts (Dura & Suharsono, 2022), One way for companies to pursue sustainable development is by implementing environmental accounting, which has been shown to improve a company's environmental performance, profitability, and sustainability.

Environmental accounting has emerged in response to growing social and environmental demands, and now plays a central role in integrating accounting practices with an organization's strategic objectives. Among its applications, the most notable are carbon emission reduction, more efficient use of resources, and improved waste management—initiatives that can strengthen a company's reputation, optimize its operations, and expand its competitive advantage. Nevertheless, its implementation remains limited to date, in the study (Putra & Sisdianto, 2024) found that in Indonesia, environmental accounting has the potential to enhance a company's image, efficiency, and compliance with environmental regulations.

PT Trigunapratama Abadi is a company engaged in the management of Hazardous and Toxic Waste (B3) in accordance with KBLI code 38220. Located in Karawang, West Java Province, the company has obtained an official permit from the Ministry of Environment and Forestry (KLHK) to carry out the processing (disposal) and utilization of B3 waste legally and in accordance with regulations. In its operations, PT Trigunapratama Abadi manages various types of hazardous waste, including industrial waste, used oil, medical waste, and contaminated soil, which cannot be disposed of, landfilled, or incinerated indiscriminately because they have the potential to cause negative impacts on human health and the environment. Therefore, the management of this waste must be carried out in accordance with safe procedures, technical standards, and applicable legal regulations..

Companies that manage hazardous and toxic waste (B3), such as PT Trigunapratama Abadi, play a central role in safeguarding environmental sustainability and public health. Based on preliminary research findings, this company has been implementing environmental accounting since around 2015. However, in the early stages of implementation, various challenges arose, particularly regarding the human resources' ability to systematically identify and record environmental costs in financial statements. This situation indicates that the implementation of environmental accounting has not yet been fully optimized..

One empirical phenomenon that underscores the urgency of this research can be seen in the case at PT Trigunapratama Abadi. According to a report by the online media outlet Radar Karawang by (Mang Raka, 2019), The company has previously faced serious environmental issues that drew the attention of local authorities. In a news article titled "PT Triguna's Permit to Be Evaluated," it was reported that the relevant authorities issued a warning and planned to evaluate the company's operating permit due to alleged issues in environmental management. The local government not only issued an administrative warning but is also considering further steps involving relevant ministries to determine the appropriate action against the company. This situation indicates that the environmental issues in question are not minor but have the potential to cause serious consequences for the company's operational sustainability.

These issues indicate that although the company has implemented environmental accounting, there are still gaps in its implementation that could pose risks to business sustainability. From a Triple Bottom Line perspective, disruptions to environmental aspects not only impact ecosystems but also affect the company's social and economic aspects (Alifiarisma Maricar & Sunu Priyawan, 2024). A decline in a company's reputation, a loss of public trust, and even the potential revocation of its operating license are consequences that can threaten the long-term viability of a business. This is directly related to the concept of business sustainability, in which pressure from regulators and the public can affect a company's business continuity.

Based on previous research (Mauludi et al., 2025) PT Inkoasku has implemented energy efficiency, waste management, and water conservation measures to minimize its ecological impact. In the social aspect, occupational safety policies and corporate social responsibility programs have been implemented to improve the well-being of employees and the surrounding community. Meanwhile, from an economic perspective, environmental accounting practices help reduce operating costs, optimize resource utilization, and strengthen the company's competitiveness within the industry. Another study conducted by (Ade Bela & Sisdianto, 2024) confirms that strategies involving systematic measurement, recording of environmental costs, and transparent disclosure of information can increase environmental awareness without making it the primary mediator in achieving sustainability. A study by (Alifiarisma Maricar & Sunu Priyawan, 2024) at PT. Varia Usaha Beton found that the company has implemented environmental accounting and is prepared to move toward sustainability in the future to compete through the production of environmentally friendly products; however, PT. VUB does not yet have sustainability reporting that complies with the Global Reporting Initiative (GRI) Standards.

Many studies have been conducted on environmental accounting, but research specifically examining its application in the hazardous waste management industry remains very limited. This opens the door for more specialized research to explore how environmental accounting is applied in hazardous waste management companies and to analyze its effectiveness in driving environmental and social performance. Based on the phenomena observed at PT. Triguna Pratama Abadi and the differences in industrial sectors compared to previous studies, the researcher is interested in conducting a study titled "Analysis of the Application of Environmental Accounting as a Review of Business Sustainability (Case Study of PT. Triguna Pratama Abadi)."

Literature Review

Theory Triple Bottom Line

John Elkington (1994), as cited in (Alifiarisma Maricar & Sunu Priyawan, 2024), stated that a company's sustainability and growth are determined not only by profit alone, but also by the company's genuine commitment to protecting the environment and upholding justice in order to support the realization of sustainable development. The Triple Bottom Line (TBL) approach emphasizes that corporate sustainability encompasses three main aspects: economic (profit), environmental (planet), and social (people). According to (Komang Adi Kurniawan Saputra, 2019) the Triple Bottom Line theory maintains corporate sustainability through the following:

1. Profit

Companies are fundamentally focused on achieving economic profits to ensure operational sustainability and business growth. In this context, environmental accounting plays a crucial role as a tool for identifying and recording costs related to environmental aspects, such as waste management and energy efficiency.

2. People

Companies need to demonstrate a commitment to the well-being of the community as part of their social responsibility. This can be achieved through the implementation of Corporate Social Responsibility (CSR) programs, such as providing assistance to the community, building educational and health facilities, and strengthening local economic capacity.

3. Planet

Environmental sustainability can be achieved through effective and integrated waste management. In this context, environmental accounting serves as a tool for identifying, measuring, and recording the amount of waste generated, the costs of managing it, and its impact on ecosystems. This information provides a foundation for companies to formulate waste reduction strategies, improve resource efficiency, and support more sustainable operational practices.

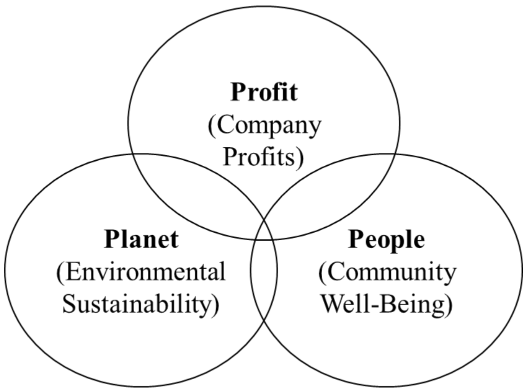


Figure 1 Triple Bottom Line
Source : (Komang Adi Kurniawan Saputra, 2019)

Environmental Accounting

Environmental accounting is a concept that emphasizes the integration of environmental aspects into a company's accounting system, specifically by incorporating environmental costs and benefits into the economic decision-making process. The application of this concept demonstrates that companies are not solely focused on financial profit, but also take into account the ecological impacts of their operational activities (Gustari & Sisdianto, 2024).

Environmental accounting has been adopted by various companies, both in the industrial and service sectors, as an effort to improve the effectiveness of environmental management. This practice aims to generate more accurate information regarding the costs, benefits, and environmental consequences of a company's activities. In addition, environmental accounting also serves as a tool to identify and estimate the costs required for environmental protection efforts, while assessing the resulting impacts. Thus, companies can systematically assess potential negative impacts and formulate appropriate and sustainable solutions to address them. This approach is essential to ensure that a company's operational activities remain aligned with the principles of sustainability (Taufiq & Silaturahmi, 2022)

In the context of the waste management industry, the implementation of environmental accounting is crucial because this sector often has a significant impact on the environment. Companies that operate without considering environmental factors can lead to increased waste, high energy consumption, and damage to local ecosystems. Therefore, through the implementation of environmental accounting, companies can manage these negative impacts more effectively (Aisyah & Sisdianto, 2025)

According to (Mauludi et al., 2025) through the implementation of environmental accounting, companies are able to enhance their transparency and accountability toward stakeholders regarding their environmental management efforts. Environmental accounting is closely linked to the concept of sustainability, particularly through the Triple Bottom Line (TBL) approach, which encompasses three main dimensions: Economic (profit), Social (people), and Environmental (planet). Thus, environmental accounting plays a crucial role in strategic decision-making to support long-term business sustainability. In practice, environmental accounting is guided by international standards such as ISO 14001. The implementation of these standards enables companies to increase transparency, minimize environmental risks, and strengthen their sustainability achievements. Several environmental accounting indicators that can be used to measure a company's environmental performance include:

1. Waste Management
   The company manages and reduces operational waste through recycling, the handling of hazardous and toxic waste (B3), and compliance with applicable regulations..
2. Energy Efficiency
   Improving energy efficiency by implementing energy-saving technologies, renewable energy, and efforts to reduce carbon emissions.
3. Sustainable Material Use
   Using recycled raw materials and more environmentally friendly alternatives to minimize ecological impact.
4. Water Management
   Efficient use and treatment of wastewater in accordance with environmental standards to reduce pollution levels.
5. Regulatory Compliance
   Implementation of environmental standards such as ISO 14001, periodic audits, and sustainability reporting to ensure compliance with legal regulations.
6. Biaya Lingkungan (Environmental Cost Accounting)
   Recording of waste management costs, investments in environmentally friendly technologies, and estimates of fines resulting from non-compliance.

While remaining grounded in generally accepted accounting principles and standards, this is a mechanism for disclosing and presenting the treatment of costs related to environmental management. Steps such as identification, recognition, measurement, presentation, and disclosure are the accounting procedures (Daud et al., 2024). According to the 2015 Statement of Financial Accounting Standards (PSAK) No. 1, the presentation of the financial statements is as follows:

1. Identification

In Paragraph 49 of the 2015 PSAK Framework No. 1, an entity clearly identifies its financial statements and distinguishes them from other information in the same publication. For example, at a Hazardous Waste Treatment Plant, to prevent adverse consequences resulting from waste that could contaminate the environment, the production line incurs costs to address this issue.

2. Recognition

In the 2015 Framework for Financial Accounting Standards (PSAK), Paragraph 82, recognition is the inclusion of an item that meets the definition of an element and the recognition criteria set forth in the balance sheet or income statement. Recognition is carried out by disclosing an item—both in terms of its nature and the extent of the recognition—and by announcing benefits whose amount or payment terms have not yet been determined. Items that meet these criteria must be treated as having an undetermined amount or payment terms. The inability to determine these details may be addressed through the accounting policies applied or through notes or other explanatory information.

3. Measurement and Presentation

According to paragraph 99 of the 2015 Framework for the Preparation and Presentation of Financial Statements, measurement is the process of determining the monetary amount to recognize and include each element of the financial statements. This process involves selecting a specific measurement basis. A number of different measurement bases are used to varying degrees and in various combinations in financial statements. The presentation of these environmental costs in financial statements may be done under different account titles because there are no standard provisions specifying the allocation of the Company's environmental expenditures.

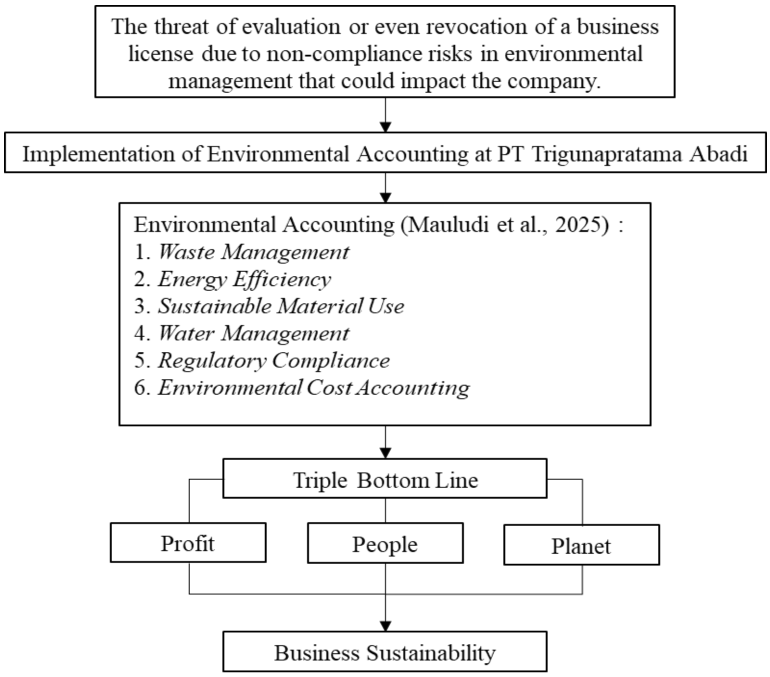
Disclosure

According to PSAK No. 1, paragraph 117, of 2015 on the Presentation of Financial Statements: "An entity may disclose in the notes to the financial statements the measurement bases used in preparing the financial statements and other relevant accounting policies applied to facilitate a better understanding of the financial statements."

Business sustainability

Business sustainability refers to a company's ability to maintain its operations over the longterm while balancing economic, social, and environmental considerations. This concept emphasizes that business activities should not only be focused on generating profits but must also take into account their impact on society and environmental conservation. In this context, according to (Mauludi et al., 2025) The implementation of environmental accounting serves as a key tool that helps companies ensure regulatory compliance, improve reporting, and strengthen relationships with stakeholders. Through this implementation, companies can develop business strategies that are more sustainability-oriented, enhance their corporate image, and minimize the risk of legal sanctions that could potentially disrupt long-term operational stability.

Conceptual Framework of the Research



Research Methodology

The method used in this study is a qualitative method with a descriptive approach. This approach was chosen because it allows the researcher to provide an in-depth description of the findings derived from the data collected in the field. This study involved key subjects or informants consisting of Accounting staff, Legal staff, and HSE staff at PT Triguna Pratama Abadi, as well as members of the community. The study began with data collection through interviews and direct observation of the informants. It utilized two types of data: primary and secondary. Primary data were obtained through structured interviews with informants involved in waste management, as well as through direct observation of the implementation of environmental accounting processes at the company. Meanwhile, secondary data was obtained from various relevant written sources, including books, company reports, and scientific journals discussing environmental accounting. The data collection techniques used in this study included observation, interviews, and documentation. The data analysis techniques used were based on the approach proposed by Miles and Huberman in (Prof. Dr.

Sugiyono, 2023) The qualitative data analysis process is interactive and is conducted on an ongoing basis until the data is considered saturated.

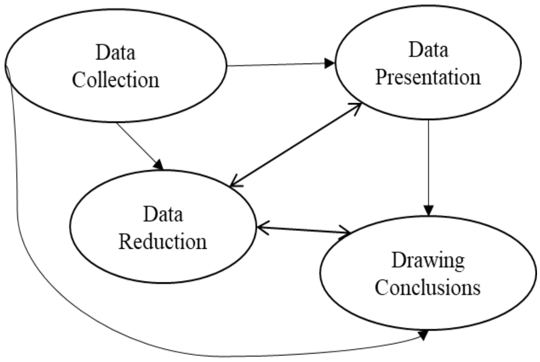


Figure 3 Milles and Huberman's Research Procedure
Source : (Prof. Dr. Sugiyono, 2023)

Research Findings and Discussion

The Implementation of Environmental Accounting at PT Trigunapratama Abadi

In order to identify the environmental costs incurred by PT Trigunapratama Abadi in relation to environmental activities as part of efforts to preserve the environment for the communities surrounding the company, the researcher used an environmental classification based on the theory of Hansen & Mowen. This classification includes :

PT Trigunapratama Abadi allocates funds as part of the company's efforts to minimize potential environmental damage that may result from production activities. As a demonstration of its commitment to the environment, the company regularly conducts environmental awareness sessions for employees every Monday morning. In addition, the company also provides motivation through the heads of each relevant department regarding the importance of maintaining a clean environment to ensure it remains healthy and free from the negative impacts of environmental pollution. Furthermore, the company sets aside funds to prevent pollution before it occurs by designing environmentally friendly production processes from the outset, purchasing pollution control equipment, and providing training to employees.

These costs are incurred to determine whether the company's products, processes, and activities comply with the standards set forth in environmental regulations. As a hazardous waste management service provider, PT Trigunapratama Abadi has, of course, adhered to environmental standards and procedures, including ISO 14001 which focuses on environmental management systems and ISO 45001 which pertains to occupational health and safety. Furthermore, the company holds OHSAS 18001 certification as part of its occupational safety risk management. All of these certifications remain active and are implemented on an ongoing basis.

These costs arise from environmental impacts that remain within the company's premises before contaminating the external environment. PT Trigunapratama Abadi has already developed strategies to address these issues, such as managing incinerator ash waste or responding to leaks at hazardous waste treatment facilities.

External failure costs refer to costs associated with the company's activities that arise from the impact of discharging waste into the external environment. For example, around 2019, PT Triguna faced allegations of polluting the Citarum River, although the company denied that the waste found on the river's surface originated from its operations; and the company anticipates such incidents by setting aside funds for external failure costs, such as government fines, compensation to the community, and remediation costs.

Recognition of Environmental Costs by PT Trigunapratama Abadi

The company recognizes environmental costs in its financial statements based on their nature and intended use. This recognition is carried out by classifying environmental costs into several accounting categories, namely as expenses, assets, liabilities, or cost of goods sold (COGS).

Environmental cost measurement at the company is conducted using the historical cost approach, whereby costs are recorded at the actual amounts incurred by the company and supported by valid transaction evidence, such as invoices, bills, and contracts with third parties. For routine costs, such as waste transportation costs or operational costs for environmental management, the company finds it relatively easy to measure them because their values tend to be fixed and predictable. This facilitates the company's ability to plan and control environmental costs on a regular basis.
However, for long-term environmental costs, such as environmental restoration costs or the replacement of waste treatment facilities, the company has not yet made specific estimates or recorded provisions. This situation indicates that the application of environmental accounting within the company still focuses on costs that have actually been incurred (realized costs) and does not yet fully encompass the estimated recognition of future environmental liabilities.

PT Trigunapratama Abadi treats environmental costs as part of its financial accounting system, recording and presenting them in accordance with the characteristics of the transactions that occur. The company handles accounting by classifying environmental costs based on their nature and intended use, so that these costs can be recognized as either operating expenses or company assets.

Based on interviews with the Accounting Department staff, the company presents and discloses environmental costs in its financial statements within the income statement and balance sheet components. The income statement includes various costs related to environmental management activities, while the balance sheet lists assets used to support these activities.

In terms of disclosure, the company discloses environmental costs through detailed account line items in the financial statements and other supporting reports. This disclosure aims to provide more transparent information regarding the company's environmental activities and expenditures to management and stakeholders.

Discussion

Analysis of the Implementation of Environmental Accounting at PT Trigunapratama Abadi

PT Trigunapratama Abadi has implemented environmental accounting in its operations. The company began implementing environmental accounting around 2015–2016, coinciding with its business transformation from a manufacturing company to a waste management service provider. This change marked a crucial turning point, as waste management activities entail more complex environmental consequences than the company's previous manufacturing operations. Consequently, the company began to recognize the importance of a specialized accounting system capable of identifying and managing environmental costs separately and in a more structured manner.

In the early stages of implementation, management made adjustments to the accounting system by separating environmental costs from general operating expenses; environmental costs incurred by the company include the costs of managing hazardous and non-hazardous waste, investments in energy efficiency, and compliance with increasingly stringent government regulations regarding hazardous waste management. In this regard, the company began participating in the PROPER program as a form of compliance and to gain recognition of its environmental performance from government agencies, particularly the environmental agency. Participation in this program requires the company to have an adequate and standardized environmental recording and reporting system.

Based on research at PT Trigunapratama Abadi, the increase in hazardous waste from the company's operations has driven energy efficiency strategies through automation-based, environmentally friendly technologies. The implementation of environmental accounting is a crucial step toward business sustainability, taking into account economic, environmental, and social aspects. Environmental accounting indicators themselves cover six main aspects, namely:
1. Waste Management
Based on research conducted at PT Trigunapratama Abadi, the company has routinely conducted emissions testing and submitted reports to the relevant authorities (the Ministry of Environment and Forestry) in accordance with the requirements and quality standards set forth in the Minister of Environment's Decree No. 13 of 1995, dated March 7, 1995, concerning Emission Quality Standards for Other Types of Activities, and the Head of Bapedal's Decree No.-03/Bapedal/1995 on Technical

Requirements for the Management of Hazardous Waste, which aims to avoid legal sanctions and build a positive corporate image. High operating costs and infrastructure limitations pose challenges to the optimization of a sustainable system. Although the system is already adequate, the company still needs to make improvements to ensure more efficient waste management and support business sustainability.

2. Energy Efficiency

PT Trigunapratama Abadi implements energy-efficiency innovations as part of its commitment to environmental sustainability. The measures taken include the use of energy-saving technology by utilizing hazardous waste (B3) as a substitute for petroleum-based fuels (BBM) and as a substitute for production raw materials; adjusting production schedules to avoid operating production machinery during PLN's peak electricity demand periods; and conducting regular and ongoing machinery maintenance. These efforts not only reduce operating costs but also lower carbon emissions.

3. Sustainable Material Use

PT Trigunapratama Abadi is committed to replacing raw materials that have a negative impact on the environment with more sustainable alternatives. The company previously used diesel and PGN gas as fuel sources, but has innovated by utilizing hazardous waste (B3) in the form of used motor oil as a substitute for petroleum-based fuels to power burners in the production of low-grade paper, as well as in red brick kilns and incinerators all of which serve as facilities for hazardous waste management. This initiative aims to reduce dependence on non-renewable resources and minimize environmental pollution. This strategy aligns with the company's commitment to prioritizing the interests of customers and the public, who are increasingly concerned about environmental issues.

4. Water Management

PT TrigunaPratama Abadi places great emphasis on water management in the implementation of environmental accounting. To regulate and conserve water usage, PT TrigunaPratama Abadi has implemented measures such as using a closed-loop system at its wastewater treatment plant (IPAL). This means that treated wastewater meeting quality standards is not discharged into rivers but is reused in the production process. This initiative aims to improve resource efficiency and minimize negative impacts on the surrounding environment. This strategy reflects the company's commitment to managing natural resources sustainably.

5. Regulatory Compliance

PT Trigunapratama Abadi considers regulatory compliance to be a key aspect of its environmental accounting practices. In implementing environmental accounting, the company adheres to various nationally and internationally recognized standards and regulations. One of the primary benchmarks is the PROPER program, initiated by the government as a tool for evaluating companies' environmental performance. In this regard, the company has participated since 2015 and has received a blue rating, indicating that it has met the minimum standards for compliance with applicable environmental regulations. Continuous participation in this program reflects the company's commitment to environmentally compliant management. Additionally, the company has adopted international standards such as ISO 14001, which focuses on environmental management systems, and ISO 45001, which pertains to occupational health and safety. Furthermore, the company holds OHSAS 18001 certification as part of its occupational safety risk management. All of these certifications remain active and are implemented on an ongoing basis, demonstrating that the company has integrated environmental and safety aspects into its management system.

In terms of reporting, the company routinely prepares environmental management reports every three months and submits them to the relevant agency, namely the environmental agency. These reports take the form of waste management balance sheets containing information on the amount of waste received, processed, and generated. This periodic reporting system serves not only as a means of regulatory compliance but also as a tool for monitoring and evaluating the company's environmental performance.

6. Environmental Cost Accounting

PT Trigunapratama Abadi has implemented environmental cost accounting separately from its primary financial statements to measure the financial impact of its sustainability strategies. These costs include waste management, investments in environmentally friendly technologies, and energy efficiency programs. Through this structured accounting system, the company can evaluate the environmental impact of its operations and adjust its financial policies to make them more sustainable. According to the 2015 Financial Accounting Standards Statement (PSAK) No. 1, the presentation of the financial statements is as follows :

Stages of Environmental Cost Allocation as referred to in PSAK 2015 No. 1, Presentation of Financial Statements.

1. Identification

According to PSAK No. 1 of 2015, Paragraph 49, an entity must clearly identify financial statements and distinguish them from other information in the same publication. Research findings at PT Trigunapratama Abadi regarding the allocation of environmental costs indicate that the company has already incurred environmental costs for waste management; this means the company is in compliance with PSAK No. 1 of 2015, Paragraph 49.

2. Recognition

According to PSAK 2015, Paragraph 82, "recognition" refers to the inclusion of an item that meets the definition and recognition criteria set forth in the balance sheet or income statement. In the allocation of environmental costs, PT Trigunapratama Abadi has recognized environmental costs in its financial statements based on the nature and purpose of their use. This recognition is carried out by classifying environmental costs into several accounting categories, namely as expenses, assets, liabilities, or cost of goods sold (COGS); this means that the Company is in compliance with PSAK 2015, Paragraph 82.

3. Measurement

According to PSAK 2015, paragraph 99, Measurement is the process of determining the monetary amount to recognize and include each element of the financial statements. At PT Trigunapratama Abadi, the measurement of environmental costs is based on the historical cost approach, whereby costs are recorded at the actual amounts incurred by the company and supported by valid transaction evidence, such as invoices, bills, or cooperation contracts with third parties.

4. Presentation

PSAK No. 1 of 2015, Paragraph 15, states that financial statements present a fair view of an entity's financial position, financial performance, and cash flows. At PT Trigunapratama Abadi, environmental costs are presented in the income statement as part of the company's operating expenses. In addition to being presented in the income statement, environmental costs are also presented in the balance sheet, specifically under fixed assets. This presentation applies to assets used to support environmental management activities.

5. Disclosure

PSAK No. 1, paragraph 117, of 2015 on the Presentation of Financial Statements states: "An entity may disclose in the notes to the financial statements the measurement bases used in preparing the financial statements and other relevant accounting policies applied to facilitate a better understanding of the financial statements." PT Trigunapratama Abadi explains that its accounting policies are disclosed in the Notes to the Financial Statements (CALK) under "Cost of Revenue" in the "Cost of Waste Processing" line item.

The Application of Environmental Accounting as a Framework for Business Sustainability through the Triple Bottom Line Concept at PT Trigunapratama Abadi

Environmental accounting plays a crucial role in ensuring business sustainability by recording and reporting the environmental impacts of a company's operational activities. By tracking environmental costs such as waste management, energy efficiency, and investments in eco-friendly technologies companies can identify and manage environmental risks that could potentially affect business performance.

Business sustainability refers to a company's ability to continue operating while maintaining a balance among economic, social, and environmental aspects. The implementation of environmental accounting helps companies ensure regulatory compliance, improve reporting transparency, and strengthen relationships with stakeholders. With this system in place, companies can optimize more sustainable business strategies, enhance their corporate image, and reduce the risk of legal penalties that could harm long-term operations. The aspects of the Triple Bottom Line are as follows :

1. Profit
The economic aspect of the Triple Bottom Line emphasizes business sustainability by ensuring long-term financial efficiency. In the context of environmental accounting, PT Trigunapratama Abadi records and manages environmental costs, such as waste treatment, energy efficiency, and investments in environmentally friendly technologies. Meanwhile, regarding economic sustainability, the implementation of environmental accounting makes a significant contribution to creating added value for the company through improved cost efficiency, resource optimization, and the economic empowerment of the surrounding community. The implementation of environmental accounting also encourages the company to focus not only on reducing costs but also on creating new revenue streams through the utilization of waste. Waste that was previously considered a cost burden can be reprocessed into byproducts with economic value, such as alternative raw materials or marketable finished products.

At PT Trigunapratama Abadi, operational efficiency is evident in the practice of converting waste into products with economic value. For example, paper waste (slat paper), which previously had no practical use, is repurposed as an alternative raw material to produce items such as egg trays. This process not only reduces the volume of waste that must be disposed of but also creates a source of revenue for the company. Thus, waste that was originally considered a cost burden can be converted into an asset that provides economic benefits. This process reflects a transformation from "waste to value," where waste is no longer viewed as useless production residue but rather as a resource that can be optimized to generate economic profit.

This approach helps companies avoid wasting resources, reduce operating costs, and avoid fines resulting from non-compliance with environmental regulations. As a result, companies can maintain financial stability while continuing to practice sustainable business operations.

2. People
The social aspect reflects the impact of PT Trigunapratama Abadi on its employees, the community, and stakeholders. The company implements environmental accounting by converting waste into products with economic value, such as red bricks, which not only generate profits for the company but are also utilized in social activities through corporate social responsibility (CSR) programs. These products are distributed to support the construction of public facilities such as prayer rooms and Islamic schools, as well as to provide aid to areas affected by natural disasters. Additionally, the company collaborates with various institutions, such as law enforcement agencies and social organizations, further strengthening its social role within the community. For the company, these CSR initiatives enhance its reputation, foster a conducive social environment, and support business sustainability.

Furthermore, structured waste management activities also create job opportunities for the surrounding community. The company involves local workers in various operational activities, such as transportation, processing, and the conversion of waste into value-added products. This involvement not only increases community income but also fosters the development of skills and work capacity, thereby having a long-term impact on local economic well-being.

3. Planet
The environmental aspect of the Triple Bottom Line emphasizes the company's efforts to reduce negative impacts on the environment. PT Trigunapratama Abadi has implemented various initiatives and innovations in managing waste, particularly hazardous waste (B3), in accordance with the company's permits. For example, at the wastewater treatment plant (IPAL), a closed-loop system is used—meaning that treated wastewater meeting quality standards is not discharged into rivers but is reused in the production process; The utilization of hazardous waste in the form of used oil serves as a substitute for petroleum-based fuel as an energy source for burner engines in the production of low-grade paper, as well as in red brick kilns and incinerators—all of which are facilities used for hazardous waste management. In addition, the company conducts periodic greenhouse gas (GHG) emissions testing at a KAN-accredited laboratory, including assessments of energy consumption and vehicle usage, to ensure accurate estimates in environmental reporting (RKL-RPL Reports).

Thus, the company's implementation of environmental accounting enables it to identify and manage environmental risks that could potentially hinder business operations. This approach not only helps maintain environmental sustainability but also ensures the company remains compliant with applicable environmental regulations.

Conclusion

The implementation of environmental accounting at PT Trigunapratama Abadi plays a crucial role in the company's sustainability. The company has adopted several environmental practices; however, management's and employees' understanding of environmental accounting concepts in the early stages tends to be limited, particularly among operational staff. This is due to a shift in work patterns from a focus solely on production activities to activities that also require detailed administrative record-keeping. This situation presents a unique challenge for management in guiding and training employees to maintain consistent record-keeping. Therefore, a process of supervision, guidance, and adjustment of the work culture is necessary so that employees can understand the importance of data in supporting the environmental accounting system. Regulatory support and increased management awareness are key factors in optimizing the implementation of environmental accounting. Through improved implementation, PT Trigunapratama Abadi can enhance operational efficiency and strengthen its corporate image as a sustainable business. With the implementation of environmental accounting, the Company has gained a deeper understanding of its importance as an integral part of its sustainable business strategy, thereby enabling more comprehensive and responsible decision-making, as well as promoting efficiency in resource use and waste reduction. Ultimately, this minimizes negative environmental impacts while reducing operational costs; increased compliance with environmental regulations helps mitigate the risk of legal penalties and strengthens the company's reputation and image in the eyes of stakeholders. Finally, the implementation of environmental accounting supports the creation of a balance between profitability, social responsibility, and environmental protection, in line with the Triple Bottom Line concept (Profit, People, Planet) as the primary foundation for achieving business sustainability.

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