



Analysis of the Implementation and Accounting Treatment of Environmental Costs at Hotel X

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ABSTRACT

This study analyzes the application of environmental cost accounting management activities and treatment at Hotel X based on Hansen & Mowen's theory as well as the provisions of the KKPK and PSAK. The method used is qualitative descriptive through observation, documentation, and interviews with *the Engineering and Accounting* departments. The results of the study show that the hotel has implemented waste, energy, and emissions management which includes internal and external costs of prevention, detection, and failure. The presentation of environmental costs has been incorporated in the general expense account according to the KKPK, but has not been specifically disclosed in the financial statements, thereby reducing transparency. This study recommends the preparation of a special environmental cost report to optimize management's financial decisions and strengthen the legitimacy of sustainable tourism.

INTRODUCTION

The hospitality industry has intensive operational activities in the use of energy, water, and waste management, which has the potential to have an impact on the environment. These conditions encourage hotels to integrate environmental responsibility into operational activities and accounting systems. Environmental accounting is needed to identify and manage costs arising from environmental activities as well as provide information that supports managerial decision-making (Zulaikhah & Kristiani, 2020). In the context of Bali tourism, the implementation of environmental management practices is becoming increasingly important because environmental sustainability is part of the sustainability of tourism activities (Pramuditha et al., 2025).

However, the implementation of environmental activities has not always been followed by the recording of environmental costs specifically. Angela (2025) found that hotels in Bali have carried out various environmentally friendly activities, but have not done formal environmental cost recording. Similar findings were shown by Between & Pramitari (2025), which found that some of the environmental costs were still recorded in the general cost account, while Rizki et al. (2023) It shows that the classification of environmental costs in the hospitality sector has not been clearly carried out. The findings show that there is a gap between environmental management activities and accounting treatment of the costs they incur. In fact, the integration of environmental information into the accounting system can support resource management and the sustainability of hotel operations (Wirjono & Deva, 2024). Therefore, Hotel X was chosen as the research object to provide empirical evidence regarding the application and treatment of environmental cost accounting in large-scale hotels. This study uses the Hansen and Mowen environmental cost classification and analyzes aspects of recognition, measurement, presentation, and disclosure based on the applicable KKPK and PSAK.

Based on these gaps, this study aims to analyze the application of environmental management activities and environmental cost accounting treatment in Hotel X based on the Hansen and Mowen classifications as well as the applicable provisions of the KKPK and PSAK. This research is expected to enrich the empirical evidence regarding environmental accounting practices in the hospitality industry.

LITERATURE REVIEW

Legitimacy Theory

Legitimacy theory describes the relationship between an organization's activities and societal expectations. Legitimacy is gained when an organization's activities are seen as conforming to prevailing social values and norms (Suchman, 1995). Deegan (2014) explained that legitimacy is dynamic so companies need to continue to adapt to changing societal expectations. In the context of environmental accounting, environmental management and transparent disclosure of environmental costs can demonstrate a company's commitment to environmental responsibility and help maintain stakeholder trust (O'Donovan, 2002).

Environmental Accounting and Environmental Costs

Environmental accounting integrates environmental aspects into accounting information, primarily through the identification and management of expenses arising from environmental activities. Its application is important because more accurate identification of environmental costs can help management evaluate environmental programs and control expenditures related to them (Ikhsan, 2009). Environmental costs are economic sacrifices that arise due to environmental impacts that have occurred or that have the potential to occur as a consequence of the company's activities (Hansen & Mowen, 2009). Ikhsan (2009) It also views environmental costs as expenses incurred by companies as a form of responsibility to protect and maintain the environment. Thus, in the hospitality industry, environmental costs are not only seen as operational burdens, but also as resources used to support operational sustainability.

Hansen & Mowen (2009) Classifying environmental costs into four categories, namely environmental prevention costs, environmental detection costs, environmental internal failure costs, and environmental external failure costs. Prevention costs are costs incurred to prevent environmental impacts, while detection costs are related to monitoring and identification activities of potential environmental impacts. Internal failure costs arise from handling waste or environmental problems that are still within the company's operational limits, while external failure costs arise due to environmental impacts that occur outside the organization. The classification is the basis for analysis to identify environmental costs in Hotel X.

Environmental Cost Accounting Treatment

The treatment of environmental cost accounting relates to how environmental costs are recognized, measured, presented, and disclosed in financial statements. Proper treatment is required so that economic transactions can be identified and reported consistently in accordance with applicable accounting standards (Ramadhani et al., 2024). In this study, the analysis refers to the Financial Reporting Conceptual Framework (KKPK) of 2024 and the Financial Accounting Standard Statement (PSAK) No. 201 of 2024. Acknowledgment is concerned with the fulfillment of the criteria for a post to be included in the financial statements, while measurement determines the basis used to quantify the monetary value of a post. Presentation is concerned with how financial information is communicated in the financial statements, while disclosure provides additional information that users need to understand the financial statements.

These three foundations are the conceptual basis in this study to assess whether the environmental costs identified in Hotel X have been classified and treated appropriately in the accounting system. The analysis then relates the environmental activities carried out by the hotel with the classification of environmental costs and the accounting treatment of these costs.

METHODOLOGY

This study uses a qualitative descriptive approach to analyze the application and treatment of environmental cost accounting at Hotel X. Data collection was carried out from March to June 2026 at the hotel's Accounting Department and Engineering Department. The main informants in this study were Chief Accountants and Engineering Staff who provided information on environmental activities, cost identification, accounting records, and treatment of environmental costs. This study uses primary data and secondary data. Primary data were obtained through in-depth interviews and direct observation of environmental management activities and accounting practices related to these activities. Secondary data was obtained from internal hotel documents, financial records, environmental policies, sustainability-related documents, official hotel websites, and relevant academic literature.

Data was collected through interviews, observations, and documentation. Interviews were conducted to obtain information from parties directly involved in environmental management and accounting activities. Observation was used to observe environmental activities directly and the costs associated with them, while documentation was used to obtain financial and operational records as supporting data. The combination of the three techniques was used to strengthen the completeness and validity of the research data. The data that had been collected was analyzed descriptively through three stages, namely data reduction, data presentation, and conclusion drawn. Relevant information was selected and compiled based on the focus of the research. The environmental costs that had been identified were then classified based on four categories of Hansen and Mowen, namely environmental prevention costs, environmental detection costs, environmental internal failure costs, and environmental external failure costs. Furthermore, the accounting treatment of the costs that have been identified is analyzed based on aspects of recognition, measurement, presentation, and disclosure with reference to the KKPK of 2024 and PSAK No. 201 of 2024.

RESEARCH RESULTS

Implementation of Environmental Management and Cost Identification

The results of the study show that Hotel X has implemented environmental management through the management of solid waste, liquid waste, B3 waste, emission and noise control, and energy efficiency through the use of solar panels. These activities are carried out through the operation of waste treatment facilities, periodic environmental testing, and maintenance of environmental facilities.

Table 1. Implementation of Environmental Management and Cost Identification

Environmental Management	Implementation at Hotel X	Costs Incurred
Solid waste	Processing of food waste using a 750 kg aerobic digester machine	Composting machine operating costs
Liquid waste	Waste flow to the area treatment facility	Liquid waste treatment levy fee
B3 Waste	Temporary storage and transport by authorized vendors	Cost of B3 waste transportation services
Waste air & noise	Regular testing of generator set, ambient air, and noise emissions	Environmental testing costs
Energy efficiency	Operation and maintenance of 807 kWp solar panels	Solar panel maintenance costs

Based on these results, environmental costs are then classified according to Hansen and Mowen as follows:

Table 2. Classification of Environmental Costs Based on Hansen and Mowen

Hansen & Mowen Classification	Costs Found at Hotel X	Compatibility	Basis/Reason
Environmental Prevention Costs	Aerobic digester <i>machine operation</i> and solar panel maintenance	Conform	Costs are incurred in an effort to prevent or minimize environmental impacts before they occur.
Environmental Detection Costs	Generator emission test, noise test, and ambient air test	Conform	Costs are used to monitor and identify potential environmental impacts of operational activities.
Environmental Internal Failure Costs	Compost machine repair costs due to mechanical breakdown	Conform	The costs incurred due to the failure of the waste treatment facilities that are handled are still within

			the hotel's operational environment.
Environmental External Failure Costs	Levy on liquid waste treatment and transportation of inorganic and B3 waste by external vendors	Conform	Costs arise because waste handling is carried out outside the hotel's operational limits or involves external parties.

The results showed that all of the environmental costs identified at Hotel X corresponded to the four environmental cost categories of Hansen and Mowen. The operational costs of *the aerobic digester composting machine* and the maintenance of solar panels include prevention costs as they are aimed at reducing potential environmental impacts. Emissions testing, noise, and ambient air include detection costs because they function to monitor environmental conditions. The cost of repairing the composting machine includes the cost of internal failure because the damage is handled before the impact leaves the hotel's operational environment. Meanwhile, the cost of liquid waste treatment and waste transportation by third parties includes the cost of external failure because the handling is carried out outside the physical limits of the hotel's operations.

Environmental Cost Accounting Treatment

The results of the study show that the treatment of environmental cost accounting at Hotel X is analyzed through four aspects, namely recognition, measurement, presentation, and disclosure. The Accounting Department is the party that manages and records environmental cost transactions derived from hotel operational activities.

Acknowledgments

In practice, Hotel X uses an accrual basis in recognizing environmental costs. Fees are recognized periodically when services or benefits have been received by the hotel, based on a cooperation contract with vendors and valid transaction documents. These costs are then recorded as an expense on the relevant operating accounts.

Presentation

In the financial statements, environmental costs are not presented as a separate group of costs, but are incorporated into the operating expenses of the departments associated with the activity. Thus, environmental costs remain included in the income statement, but their environmental characteristics are not displayed separately.

Disclosure

In terms of disclosure, Hotel X has not provided specific and detailed disclosures regarding environmental costs in the Notes to Financial Statements (CaLK). Because these costs are still incorporated with other operational

accounts, information regarding the environmental cost component cannot be seen separately for users of financial statements.

After Hotel X's accounting practices were explained, the results were then compared with the provisions of the KKPK of 2024 and PSAK No. 201 of 2024 which were used as the basis for analysis in the research.

Table 3. Suitability of Environmental Cost Accounting Treatment at Hotel X

Aspects	Hotel X Practice	Reference Basis	Results
Acknowledgments	Accrual basis and recognized when services or benefits are received	KKPK Chapter 5 Paragraph 5.1 of 2024	Conform
Measurement	<i>Historical cost</i> based on vendor invoice	KKPK Chapter 6 Paragraph 6.1 of 2024	Conform
Presentation	Combined with the operational burden of the relevant department	KKPK Chapter 7 Paragraph 7.1 of 2024	Conform
Disclosure	There is no specific and detailed disclosure in the CaLK yet	PSAK 201 Paragraphs 112 and 117 of 2024	Not compliant/Not optimal

The results of the analysis show that the recognition of environmental costs is in accordance with the KKPK because costs are recognized as expenses when services or benefits have been received. The measurement is also appropriate because it uses the basis of *historical costs* based on transaction values that can be verified through vendor invoices. In the aspect of presentation, environmental costs have been included in the income statement even though they are still combined with the operational expenses of the relevant departments, so that the presentation still meets the formal provisions of the KKPK.

On the other hand, the disclosure aspect is not in accordance with PSAK 201 Paragraphs 112 and 117 because Hotel X has not provided narrative disclosure or details of environmental cost allocation in the Notes to Financial Statements (CaLK). All of these costs are still presented in aggregate in operational expenses without additional explanation of the cost components related to environmental activities. This condition causes users of financial statements to not be able to clearly identify the amount of economic sacrifice allocated by the hotel for environmental management only through financial statements. This is important because disclosure in the CaLK can provide additional information about policies, measurement basis, and environmental cost components that are not explicitly visible in the income statement.

DISCUSSION

The results of the study show that Hotel X has carried out various environmental management activities that incur environmental costs. Based on Hansen and Mowen's classification, these costs consist of environmental prevention costs, environmental detection costs, environmental internal failure costs, and environmental external failure costs. These activities include waste management, energy efficiency, environmental testing, and maintenance of equipment related to the environment. These findings show that environmental management has become part of hotel operational activities.

The accounting treatment of environmental costs at Hotel X is generally in accordance with the applicable accounting framework. Environmental costs are recognized on an accrual basis when related services or benefits have been received and measured using historical costs based on legitimate vendor invoices. These costs are presented as part of operating expenses in the income statement. However, environmental costs have not been disclosed separately in the records to the financial statements so the transparency of information regarding hotel environmental expenditures is still limited.

These findings are in line with previous research showing that hotels have implemented environmental activities, but the associated costs are still combined with the overall operational burden. Viewed from the theory of legitimacy, increased transparency of environmental cost information can help demonstrate a hotel's commitment to the environment and maintain stakeholder trust. Therefore, more specific identification and reporting of environmental costs is important to support management decision-making and increase transparency in sustainable hotel operations.

CONCLUSIONS AND RECOMMENDATIONS

This study concludes that Hotel X has carried out environmental management activities that incur costs and can be classified into prevention, detection, internal failure, and external failure costs. The recognition, measurement, and presentation of environmental costs in general have been in accordance with the applicable accounting framework. However, the disclosure of environmental costs is still limited because these costs have not been specifically presented in the notes to the financial statements.

Hotel X is recommended to develop more specific environmental cost accounts or create environmental cost reports internally. This can help management monitor environmental spending, support decision-making, and increase transparency regarding the hotel's environmental commitments.

ADVANCED RESEARCH

This research is limited to one hotel and uses a qualitative descriptive approach so that the results of the study cannot fully describe environmental accounting practices in the hospitality industry at large. Further research can involve several hotels and use a quantitative approach to analyze environmental costs, environmental performance, and their relationship with hotel performance.

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