

Analysis of Accounting Environmental Cost in the Waste Treatment Process on Financial Statements at Renaissance Bali Uluwatu Resort & Spa

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Abstract: This study aims to identify and analyze how companies identify, recognize, measure, present, and disclose environmental costs associated with waste treatment processes in financial statements. This research was conducted at the Renaissance Bali Uluwatu Resort & Spa. This study uses descriptive qualitative analysis and descriptive quantitative analysis with the technique used including percentage analysis. The types of data used are primary data and secondary data. The primary data was taken by conducting interviews with the accounting and engineering staff, while the secondary data were in the form of financial reports and the waste generated reports by the hotel. The analysis of this research includes identification, recognition, measurement, presentation, and disclosure of environmental costs and the percentage of environmental costs for waste treatment carried out by the company. The results of this study are Renaissance Bali Uluwatu Resort & Spa has incurred costs related to environmental quality in terms of waste treatment costs, but have not been classified in the environmental cost report specifically but are still presented with other accounts in operating costs in the company's financial statements. Renaissance Bali Uluwatu Resort & Spa recognizes environmental costs when services have been received using the credit method with term payment. Renaissance Bali Uluwatu Resort & Spa measures environmental costs by budgeting in the middle of the year for the following year. Renaissance Bali Uluwatu Resort & Spa has not disclosed a specific policy on environmental costs in the notes to the financial statements and is still grouped with other operating costs.

Keywords: Hotels, Environmental Accounting, Environmental Cost, Waste Treatment, Financial Statements

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Introduction

Hotel industry is one of the industries that has potential to be developed and plays a role in driving economic growth and the welfare of the surrounding community. The hotel industry will have a positive impact on social and economic conditions, namely contributing to foreign exchange earnings, creating job opportunities, expanding business opportunities in the formal and informal sectors, increasing central and regional government income, increasing community income and equitable development (Armanda, 2016). Hotel is a company managed by the owner by providing food, beverage and room facilities to sleep to people who travel and are able to pay a reasonable amount in accordance with the services received without any special agreement and managed commercially (Hermawan et al., 2018), (Bagyono, 2014). According to the Decree of the Minister of Tourism, Post and Telecommunications no. KM/37/PW/304/MPPT-86 (1986), hotels are all types of accommodation that use part or all of the building to provide lodging, food and beverage services and other supporting services for the public which are managed commercially. The hotel industry has certainly effectively improved people economic and social condition. However, hotel operation also produce waste that could become tread to the sustainability of the earth. In Law no. 32 concerning Environmental Protection and Management (2009), waste is the residue of a business and/or activity, while pollution is the entry or inclusion of living things, substances, energy, and/or other components into the environment by human activities so that it exceeds environmental quality standards defined life. Meanwhile according to Mahida (1984), waste is the residue from a business or activity that contains hazardous or toxic materials which, due to their nature, concentration, and quantity, can directly or indirectly harm the environment, health, survival of humans and other living things. In general, what is called waste is residual material produced from an activity and production process, both on a household scale, industry, mining, and so on. The form of the waste can be in the form of gas and dust, liquid or solid (Malayadi, 2017).

Waste is related to environmental pollution. Waste is the cause of environmental pollution because with a certain quantity, the presence of waste can have a negative impact on the environment, especially for public health (Kurnia et al., 2020). The hotel industry produces a lot of waste every day and the number of guests who

use the services of the hotel will affect the amount of waste generated. The most waste generated by the hotel industry is solid waste and liquid waste. Solid waste generated by the hotel industry is in the form of inorganic solid waste and organic solid waste and liquid waste. Liquid waste is waste water that comes from activities that occur in rooms, kitchens, laundry, and various activities that use water (Kurnia et al., 2020). From the large amount of waste generated in the hotel industry, the hotel needs to take further action to process the waste. In the case of the waste treatment process, of course, the hotel must procure costs. With these costs, the hotel can implement green accounting, with the aim that the costs of waste treatment can be recorded properly in the financial statements. The hotel industry produces a lot of waste every day and the number of guests who use the services of the hotel will affect the amount of waste generated. The most waste generated by the hotel industry is solid waste and liquid waste. Solid waste generated by the hotel industry is in the form of inorganic solid waste and organic solid waste and liquid waste. Liquid waste is waste water that comes from activities that occur in rooms, kitchens, laundry, and various activities that use water (Kurnia et al., 2020). From the large amount of waste generated in the hotel industry, the hotel needs to take further action to process the waste. In the case of the waste treatment process, of course, the hotel must procure costs. With these costs, the hotel can implement green accounting, with the aim that the costs of waste treatment can be recorded properly in the financial statements.

The accounting system in which there are accounts related to environmental cost is alluded to as green accounting or environmental accounting. Environmental accounting is the development of social accounting as a form of social responsibility in the field of accounting that functions to identify, recognize, measure, present, and disclose the costs associated with the company's activities related to the environment (Islamey, 2016), (Aniela, 2012). The costs associated with the application of green accounting are usually referred to as environmental costs which aim to improve environmental performance. Environmental costs are divided into four, namely prevention costs, environmental detection costs, internal failure costs, and external failure costs (Hansen & Mowen, 2018). From the four classifications of environmental costs, the calculation of costs in handling waste requires systematic and correct accounting treatment, and requires identification, recognition, measurement, disclosure, and presentation of environmental cost accounting methods in a hotel. Environmental costs deserve attention because better environmental costs can result in improved environmental performance and significant benefits to human health and business success (Adediran & Alade, 2013). Sometimes the hotel industry makes planetary sustainability a concern to earth and businesses don't put the environment as a priority. Seeing the importance of waste treatment and environmental costs used during the waste treatment process, the authors are interested in conducting research on environmental cost accounting issues which in this study will reveal the application of environmental cost accounting at Renaissance Bali Uluwatu Resort & Spa. This study tries to reveal the method of recording the cost of managing the waste generated with the research title "ANALYSIS OF ACCOUNTING ENVIRONMENTAL COSTS IN THE WASTE TREATMENT PROCESS ON FINANCIAL STATEMENTS AT THE RENAISSANCE BALI ULUWATU RESORT & SPA".

Method

This study was carried out at Renaissance Bali Uluwatu Resort & Spa that located in Pantai Balangan I Street, No. 1, Ungasan, South Kuta, Badung. This study focuses on the application of environmental accounting, namely the allocation and reporting of environmental costs. The types of data used by researchers are primary data and secondary data (Sugiyono, 2017). The primary data was taken by conducting interviews with the accounting staff and engineering staff who are authorized to handle waste, while the secondary data were in the form of financial reports and reports on the waste generated by the hotel (Sugiyono, 2018).

This study uses descriptive qualitative and quantitative methods with the types of data used are qualitative and quantitative data types. The quantitative descriptive data analysis techniques is used to analysis the financial reports provided by the hotel. The technique used include percentage analysis. And the qualitative descriptive data analysis techniques can be in the form of analyzing, describing and summarizing events or objects includes identification, recognition, measurement, presentation, and disclosure of environmental costs from data obtained through the interview process or direct observation in the field.

Result and Discussion

The practice of Green Reward and Compensation at Royal Kamuela Villas & Suites are not maximally implemented In this sub-chapter would be explained the result & discussion with qualitative approach data and quantitative approach data to answer the question of the research. The qualitative approach is carried out for the purpose of to know rational of the application of environmental cost at Renaissance Hotel; and the quantitative approach is undertaken for the purpose of to calculate the percentage of the environmental cost: therefore, the proportion of

the environmental cost against the operational cost could be identified. The environmental cost is examined from five elements, which include: description, recognition, measurement, presentation, and disclosure.

1. Identification of Environmental Cost

The environmental costs incurred by the company aim to prevent environmental damage or be incurred due to environmental damage due to the waste produced by the company itself. Renaissance hotel is one of the companies that provide services for its customers. In all operational activities that occur, Renaissance Hotel certainly produces waste. There are 2 types of waste, namely solid waste and liquid waste. And all the waste treatment processes are assisted by third parties. The solid waste produced by the company is categorized into three, namely wet waste, dry waste and toxic and hazardous waste. Wet waste is usually waste that comes from kitchen operations such as leftover food ingredients that are not used. The dry waste produced by the company is in the form of plastic, paper, soap, metal, tissue & glass. The hazardous waste produced is in the form of lights and batteries that support the company's operations. Meanwhile, the liquid waste produced is in the form of water generated from all operational activities at the hotel.



Source: Renaissance Bali Uluwatu Resort & Spa (2022)

Figure 1. Toxic and Hazardous Waste



Source: Renaissance Bali Uluwatu Resort & Spa (2022)

Figure 2. Dry Waste

With the presence of several types of waste, the researchers conducted searches and compared them with financial report data from Renaissance to find out the environmental costs incurred by hotels related to waste treatment in Table 1.

Table 1. Waste Treatment Cost

No.	Kind of Waste	Cost
1	Solid Waste	<ul style="list-style-type: none"> - Cleaning equipment costs - The cost of processing wet waste and dry waste - Toxic and hazardous waste treatment costs

2	Liquid Waste	<ul style="list-style-type: none"> - Cost of chemical and bacteriological wastewater inspection - Cost of STP (Sewage Treatment Plan) - Cost of cleaning materials and cleaning tools
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Environmental costs related to waste treatment are carried out by Renaissance Bali Uluwatu Resort & Spa. Renaissance Bali Uluwatu Resort & Spa have incurred costs related to environmental activities, but have not been specifically identified by the hotel and are still reported together with operational costs in the hotel's financial statements. Renaissance Bali Uluwatu Resort & Spa has not classified environmental costs as formulated by Hansen & Mowen as shown in Table 2. Renaissance Bali Uluwatu Resort & Spa has incurred costs related to environmental quality, but the classification is still grouped with other similar operational costs.

Table 2. Cost Allocation Comparison

No.	Hansen & Mowen Theory	Renaissance Bali Uluwatu Resort & Spa
1.	Environmental Prevention Cost <ul style="list-style-type: none"> • Evaluation and selection of tools to control pollution • Implementation of Environmental Research • Product Design • Evaluating and selecting suppliers • Recycle products • Auditing environmental risks • Carry out environmental studies • Develop an environmental management system 	<ul style="list-style-type: none"> • Products to reduce or eliminate waste with the cost of cleaning equipment and cleaning materials for the prevention of maintaining the cleanliness of the hotel environment
2	Environmental Detection Cost <ul style="list-style-type: none"> • Implementation of pollution testers • Inspection of products and processes for environmental friendliness • Environmental activity audits • Verifying performance • Measuring the level of pollution • Develop environmental performance measures 	<ul style="list-style-type: none"> • Implementation of pollution with the cost of bacteriological wastewater inspection. • Measuring the level of pollution with treatment costs for waste water and cost of chemical wastewater inspection
3	Internal Failure Cost <ul style="list-style-type: none"> • Toxic waste treatment and disposal • Recycle leftovers • Operate equipment to reduce or eliminate pollution • Maintenance of pollution equipment • Obtain a facility license to produce waste 	<ul style="list-style-type: none"> • Operate equipment with cleaning equipment costs for handle the waste. • Toxic waste treatment with solid waste treatment costs and hazardous waste treatment costs
4	External Failure Fee <ul style="list-style-type: none"> • Cleaning polluted lakes • Clean up spilled oil • Clean up polluted soil • Loss of sales due to poor environmental reputation • Receive medical treatment for air pollution 	<ul style="list-style-type: none"> • External failure costs at this Renaissance Bali Uluwatu Resort & Spa are non-existent because they have never occurred.

2. Recognition of Environmental Cost

Recognition of environmental costs is related to the problem of transactions that will be recorded into the recording system or not into the accounting recording system, so that these transactions will affect the company's

financial statements. In Renaissance Waste costs are allocated in the operational costs section, namely in the similar cost section in the financial statements, then recognized at the time of service received using the credit method with term payment, but for most waste costs are recognized using the credit term payment method with maximum term of 30 days after the service is received. Renaissance Bali Uluwatu Resort & Spa is in accordance with the Statement of Financial Accounting Standards, which is to correctly acknowledge the cost of waste treatment and has its own account number as shown in Table 3.

Table 3. Comparison of Waste Treatment Cost Recognition

Basic Framework of PSAK 2015 paragraphs 82 and 94	Renaissance Bali Uluwatu Resort & Spa
Recognition is the process of forming an item that meets the definition of elements and recognition criteria stated in the balance sheet or income statement. Recognition is done by stating the item in words or in the amount of money and including it in the balance sheet or income statement. Items that meet these criteria must be recognized in the balance sheet or income statement. Failure to recognize such items cannot be corrected through disclosure of the accounting policies used or through notes or explanatory material.	Renaissance Bali Uluwatu Resort & Spa recognizes transactions as fees. Waste treatment costs are allocated in the operational expenditure section and are recognized when the transaction occurs. Renaissance Bali Uluwatu Resort & Spa in recognizing costs using the credit with term payment method and for recording it already has a separate account number.

3. Measurement of Environmental Cost

Renaissance hotel measures the cost of waste treatment using units of rupiah by using the costs incurred and taken or looking at the budget that has been designed every year. Measurement of waste costs has been budgeted in the middle of the year for the following year. Most of the waste costs are incurred from the cooperation of third parties with the existence of a contract agreement. Renaissance Bali Uluwatu Resort & Spa measures waste treatment costs in accordance with the Statements of Financial Accounting Standards paragraphs 99 and 101 by measuring waste treatment costs from historical costs and according to the purchase price at the time of service received as shown in Table 4.

Table 4. Comparison of Waste Treatment Cost Measurement

Basic Framework of PSAK 2015 paragraphs 99 and 101	Renaissance Bali Uluwatu Resort & Spa
Measurement is the process of determining the amount of money to recognize and include each element of the financial statements in the balance sheet and income statement. This process involves the selection of certain measurement bases. Another measurement basis used by companies in preparing financial statements is historical cost, this is usually combined with other measurement bases	Renaissance Bali Uluwatu Resort & Spa in measuring the cost of waste treatment using units of rupiah (IDR), using the costs incurred and taken from the realization of the previous period's budget or also known as historical cost.

4. Presentation of Environmental Cost

In the Statement of Financial Accounting Standards in 2015 No. 1 paragraph 15 of the financial statements fairly present the financial position, financial performance and cash flows of the entity. Fair presentation requires an honest presentation of the effects of transactions, other events and conditions in accordance with the definitions and criteria for recognizing assets, liabilities, income and expenses set out in the basic framework for the preparation and presentation of financial statements. The application of Financial Accounting Standards with additional disclosures if needed is considered to result in a fair presentation of the financial statements. In Renaissance Bali Uluwatu Resort & Spa the environmental costs are presented in the financial statements. Waste treatment costs are reported in the financial statements and presented together with similar costs in the operating expense report. Costs related to waste treatment are included in operational costs in the financial statements and are

grouped with similar costs, so they are not presented separately in the financial statements and not presented a specific environmental cost report.

5. Disclosure of Environmental Cost

Disclosure relates to how to explain informative things that are considered important and useful for users other than what can be stated through main financial statements. Renaissance Bali Uluwatu Resort & Spa discloses accounting policies related to information in financial statements in the Notes to Financial Statements. However, based on the results of interviews and searches that have been carried out, that Renaissance Bali Uluwatu Resort & Spa has not disclosed policies regarding environmental costs specifically. The costs incurred for waste treatment are combined with operational costs so that in the disclosure the costs related to waste treatment become one with similar costs.

In addition to interviews, researchers also looked at financial reports regarding environmental costs for waste treatment in the Renaissance Hotel operational costs report. The environmental costs recognized by Renaissance Hotel are presented in the operational cost report which has been processed by the researcher is presented in Table 5.

Table 5. Financial Report of Environmental Cost

Cost (IDR)	2019	2020	2021
Operational Cost	68,814,851,963.45	16,899,131,057.14	12,542,285,559.11
Environmental Cost	782,021,522.56	359,690,023.69	266,318,070.44
Solid Waste Cost Treatment	646,669,808.22	278,623,941.50	191,062,881.40
Liquid Waste Cost Treatment	135,351,714.35	81,066,082.19	75,255,189.04
Percentage (%)	1.14	2.13	2.12

From the environmental cost report above, there is a comparison between the total environmental costs in 2019, 2020, & 2021. The highest environmental costs occurred in 2019, and the lowest environmental costs in 2021. Seen from the percentage of total environmental costs in operating costs. In 2019 the percentage of total environmental costs was 1.14% of operational costs, while in 2020 it was 2.13% and 2021 was 2.12%, this is due to the impact of the corona virus, where in 2019 before the corona virus hotel operations ran smoothly so that many operational costs were incurred, in contrast to 2020 and 2021 hotel operations did not run smoothly due to the corona virus barrier which had an impact on operational costs and environmental costs.

Conclusion

Renaissance Bali Uluwatu Resort & Spa has incurred costs related to environmental quality in terms of waste treatment costs, but have not been classified in the environmental cost report specifically but are still presented with other accounts in operating costs in the company's financial statements. Renaissance Bali Uluwatu Resort & Spa recognizes environmental costs when services have been received using the credit method with term payment. Renaissance Bali Uluwatu Resort & Spa measures environmental costs by budgeting in the middle of the year for the following year. Renaissance Bali Uluwatu Resort & Spa has not disclosed a specific policy on environmental costs in the notes to the financial statements and is still grouped with other operating costs. The highest environmental costs occurred in 2019, and the lowest environmental costs in 2021.

From the conclusions above, the researcher realizes that there are still many shortcomings and it is not perfect, so the researcher wants to provide suggestions for the company so that in the future it will be even better, namely the hotel is expected to compile environmental costs or reports related to waste treatment specifically from financial reports in general to provide information for environmental quality control as a form of effort to improve environmental quality and responsibility for the environment around the company. And also suggestions for management to better understand environmental costs and environmental cost classifications in order to further clarify the placement and categories of environmental costs according to the statement of accounting standards.

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Reference

- Adediran, S. A., & Alade, S. O. (2013). The impact of environmental accounting on corporate performance in Nigeria. *European Journal of Business and Management*, 5(23), 141–152.
- Aniela, Y. (2012). Peran Akuntansi Lingkungan Dalam Meningkatkan Kinerja Lingkungan Dan Kinerja Keuangan Perusahaan. *Berkala Ilmiah Mahasiswa Akuntansi*, 1(1), 15–19.
- Armanda, Y. (2016). Analisis Dampak Pertumbuhan Industri Perhotelan Terhadap Kesejahteraan Masyarakat Di Kecamatan Berastagi Kabupaten Karo. In *Euphytica* (Vol. 18, Issue 2).
- Bagyono. (2014). *Pariwisata dan Perhotelan*. Bandung: Alfabeta.
- Hansen, D. R., & Mowen, M. M. (2018). *Cost Management*. In *Paper Knowledge . Toward a Media History of Documents* (Edisi 4, Vol. 16).
- Hermawan, H., Brahmanto, E., & Hamzah, F. (2018). *Pengantar Manajemen Hospitality*.
- Islamey, F. E. (2016). Perlakuan akuntansi lingkungan terhadap pengelolaan limbah pada rumah sakit paru jember. *Jurnal Fakultas Ekonomi Universitas Muhammadiyah Jember*, 1–20.
- Kurnia, S., Syamsinar, S., & Afdaliah, A. (2020). Akuntansi Manajemen Limbah Industri Perhotelan (Studi kasus: Sebuah Hotel Bintang Empat di Makassar). *AKUNSIKA: Jurnal Akuntansi Dan Keuangan*, 1(1).
- Law no. 32 of 2009 concerning Environmental Protection and Management, (2009).
- Mahida, U. (1984). *Pencemaran Air dan Pemanfaatan Limbah Industri*. Jakarta : Rajawali.
- Malayadi, A. F. (2017). *Karakteristik Dan Sistem Pengelolaan Limbah Bahan Berbahaya Dan Beracun Laboratorium Universitas Hasanuddin Kota Makassar*. In *Skripsi*.
- Decree of the Minister of Tourism, Post and Telecommunications No. KM/37/PW/304/MPPT-86, (1986).
- Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, R & D*. Bandung: CV Alfabeta.
- Sugiyono. (2018). *Metode Penelitian Kombinasi (Mixed Methods)*. Bandung: CV Alfabeta.