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The Adoption of Environmental Management Accounting: A Case Study on Five-Star Hotels in Nusa Dua

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Abstract---The use of environmental management accounting concepts for companies encourages the ability to minimize the environmental problems it faces. The same is the case with five-star hotel companies in the Nusa Dua area. this study aims to examine the adoption of EMA in the hotel industry in Nusa Dua and the Adoption of Environmental Management Accounting (EMA) among hotel companies in Nusa Dua. This research is qualitative research. Data collection is done by survey, interview, and observation. Data analysis used interactive model of analysis from Miles and Huberman. The findings that can be seen are scale of environmental costs and contemporary management accounting practices affect the implementation of environmental management accounting in the hotel industry. The company considers that the implementation of Activity Based Costing provides better insight into the structure of hotel expenses.

Keywords---activity based costing, environmental management accounting, hotel expenses, hotel industry, implementation activity.

Introduction

Most companies are fully aware that environmental and social issues are an important part of a company. Therefore, the company must be able to integrate environmental issues into the company's strategy, it is based on problems such as water usage, energy usage, food waste, pollution, garage/waste which are important in all aspects of the hotel industry. Companies must measure environmental and social contributions in an adequate manner, both costs and profits to be included. It is important for hotels to develop environmental accounting to improve environmental performance. Cooper (1998) suggested that the success of implementing environmental accounting depends on the implementation and identification of environmental costs into work/business practices on a regular basis (Gosselin, 2006; Gupta & Galloway, 2003).

Environmental Management Accounting is a sub -section of environmental accounting that is generally used to provide information in decision making for an organization, although information is generated for other purposes, such as external reporting (in the form of balance sheet, income statement, cash flow statement and statement of changes in the owner's equity /shareholders). The benefits of these reports have been used all the time by the company until now, but the report has limitations. The limitations of conventional accounting construction are that it cannot provide important information about the total productivity of the company that involves the social and environmental impacts of the company (Gray & Babbington, 2001). Environmental Management Accounting (EMA)

has perfected or covered the limitations/weaknesses that occur in current accounting practices, thanks to academic and industrial practitioners from all over the world (IFAC, 2005).

Every company definitely needs management accounting information as a means of decision making. Likewise, service companies in this case the hotel industry really need management accounting information. Bearing in mind, hotels are a type of capital -intensive and labor -intensive business, so that hospitality needs adequate accounting information in managing hotel operational activities, especially related to the environment. Like the five -star hotel in the Nusa Dua area which has been environmentally certified so that it has a positive impact on the operation of hotels, especially in terms of the physical environment. The five -star hotel accounting system in the Nusa Dua tourism area is not like accounting in conventional companies where only one set of financial statements is used. However, the accounting system used is departmental accounting means that there are additional financial statements sourced from each department concerned. Each department has its own uniqueness (business peculiarities) in its operations. This uniqueness causes each department to require special financial accounting handling (Johnstone, 2020; Latan et al., 2018).

A number of non-profit organizations and academics have produced research in this area. Research that is often conducted on manufacturing companies Anis et al. (2020); Franciska et al. (2019); Setyaningtyas & Andono (2013), Agricultural Sector Hussein & Elshahookie (2020), oil and gas companies Araoye et al. (2018); Okafor (2018), and the mining sector Wang et al. (2018); Zeng et al. (2019), because it is considered the most impact on the environment. Meanwhile, research in the context of the hotel service industry Jovanović & Janković (2012); Vejzagić et al. (2018); Zulaikhah & Kristiani (2020); Saleh & Answer (2020), still provides significant gaps in the environmental management accounting literature. Research on the application of management accounting the environment in the hospitality services industry is still limited and not yet strong enough foundation in science, especially in Indonesia. Therefore, the support of the world of education and practitioners is needed to maintain the existence of the EMA. The research conducted is still exploratory or the initial phase. Therefore, more exploration is needed related to research on environmental management accounting (EMA) in the hospitality industry. Compared to other methods, the case study method is able to provide in -depth understanding of the true situation of the research object (Cresswell, 2009). One of the most famous researchers is the World Resource Institute, which publishes Green Ledgers: Case Studies in Corporate Environmental Accounting. This study supports that environmental costs are important for companies different depending on the industry. Based on this background, this study aims to examine the adoption of EMA in the hotel industry in Nusa Dua and the Adoption of Environmental Management Accounting (EMA) among hotel companies in Nusa Dua (Hua et al., 2015; Lee et al., 2014).

Literature Review

Environmental Management Accounting (EMA)

Environmental accounting based on the purpose of reporting is divided into two, namely internal company management and external company (shareholder). In internal company management, environmental accounting or often called Environmental Management Accounting (EMA) aims to present information for management decision making facilities. Definition of Environmental Management Accounting (EMA) According to The International Federation of Accountants is environmental management and economic performance through the development and implementation of accounting systems related to the environment and its practice appropriately. Focus Environmental Management Accounting for a company is different, depending on its purpose, what information to be achieved in implementing EMA, for example for managers of a department will focus on information about EMA applied to its department alone, or for example the company wants to get information about the implementation of EMA In one life cycle of a product (life cycle analysis). Some of the benefits that can be achieved by businesses/activities that apply EMA include:

1. EMA can save business expenses
2. EMA can help decision making
3. EMA improves economic performance and business environment.
4. EMA will be able to satisfy all related parties.
5. EMA provides business advantages/activities

Hotel waste

Waste is generated from a source resulting from human activities, as well as natural processes and has no economic value, and can even have a negative economic value. The level of toxicity hazard generated by the waste depends on the type and characteristics of the waste. There are several characteristics of waste including (Putra et al., 2014):

1. Micro sized
2. Dynamic
3. Widespread (spread)
4. Long term impact

Some examples of waste generated by operational activities including solid waste consisting of garbage, liquid waste (water used for laundry, kitchens) and cow tanks are included in the black water category. Meanwhile, waste water from the bathroom, used water for ablution is included in the gray water category. Based on its characteristics the hotel industry waste can be divided into three parts, namely: 1) Liquid waste is usually known as a water pollutant entity. Components of water pollution generally consist of solid waste materials, organic waste materials and inorganic waste material 2) Solid waste 3) B3 waste (Creswell et al., 2007).

Method

Respondent

This study was conducted after obtaining permission from Human Resource Development Hotel in Nusa Dua, by taking into account the principles of research ethics (informed consent, anonymity, confidentiality, protection from recorder). The informed consent form is given to the subject before the interview. Confidentiality and anonymity are guaranteed by giving codes to each informant. The informant code in this study is P1 (Financial Control), P2 (Asst. Chief Engineering) (Shaw et al., 2011; Chan, 2008).

Data Analysis Technique

Data and information are collected through observation, interviews, and documentation. Observations were made for five months by observing the environmental cost management system in the hotel. The interview was conducted face to face with the informant. The interview technique was conducted with in -depth and semi -structured interviews. Documentation studies are carried out by tracing and analyzing hotel documents. The data and information are then analyzed with the Interactive Model of Analysis from Miles and Huberman, namely 1) Data Collection , means that the researcher conducts a general exploration of the situation/object being studied 2) Reduction of data, means summarizing, selecting and sorting out the main things, focusing on important things, looking for themes and patterns 2) Data Display ,is done in the form of narrative text and 3) Conclusions in the form of causal or interactive relationships, hypotheses or theories (Hsiao et al., 2018; Daghfous & Barkhi, 2009).

Results and Discussion

The adoption Environmental Management Accounting (EMA) In Hotel industry

The overall physical environment implemented in five -star hotels in the Nusa Dua tourism area also has an impact on the environment in general. It is very real that environmental discourse that is built focuses on economic profits. In addition, hotels carry out environmental activities in various departments. This is an indicator of how environmental activities contribute to the conditions of environmental management in each department. The analysis can be seen from the results of informant interviews P1: "*The company presents all costs used to handle waste in the income statement presented in the department's expenditure item. This is categorized as direct costs and indirect costs.*" The hotel sets indicators to evaluate, analyze and express the efficiency of environmental conservation of overall business activities of each department. The company assumes that environmental costs do not have a significant impact on their income. Potential income and environmental costs produced by the hotel generate income and expenses for each alternative selected. Besides that P2 argues that: "*For companies with this complete accounting system, I don't think it is necessary. For example, now I want to know how much environmental costs related to my waste costs. So, I can see reports per department that I have. It is around 0.64% which is calculated*

from the total revenue when viewed from the engineering department. So here, we see the percentage of these costs from the total revenue instead of the total cost. To see the company can run we have to look at the total revenue not from the cost."

A good environmental cost report is a report that provides clear cost details and is prepared based on categories. Judging in the classification of environmental cost reports according to Hansen and Mowen, in allocating a budget of environmental costs, the classification of hotel costs is not in accordance with the classification of Hansen and Mowen environmental cost reports. The company only focuses on the cost of managing liquid waste, solid waste and B3 waste (material, dangerous and toxic). Whereas Hansen and Mowen are more specific in each classification, not only discussing waste. The environmental management accounting practice implemented in the Nusa Dua tourism area, according to the author's observation, is reflected in the control of environmental costs used through activity based costing. The application of the Activity Based Costing method is directed to control the activities that occur in the company through the loading of environmental costs based on activities. Based on Management Accounting Perspectives, Activity-Based Costing (ABC) is a cost management strategy that describes an important relationship between business strategies and environmental accounting that has cost assessment tools such as TCA, FCA/FCEA and LC (Shank & Govindarajan, 1993)

Barriers to the application of environmental management accounting in the hotel industry

Empirical studies have found various obstacles in the adoption of environmental management accounting in the hospitality industry. Previous studies such as Creighton (1998) have identified several significant adoption obstacles such as lack of commitment among stakeholders, long return periods and lack of incentives and information about environmental problems, Sammalisto & Arvidsson (2005), resistance to changes Nicolaidis (2006); Karimi et al. (2017), lack of knowledge and training, large investment in time, money and resources needed to comply with the standards and procedures related to EMA (Doody, 2010). Based on the results of interviews with informants P1: *"Why are us Make a special environmental cost report. Especially now in the digital world. Too many reports don't always give us the information we need. Especially with a hotel of this big."* This shows that the attitudes and practices of company management accounting affect the adoption of EMA in the hotel industry environment. Chang (2007) also found that the five main obstacles that influenced EMA adoption were, obstacles to attitudes, financial barriers, information barriers, institutional barriers and management barriers. Informant P1 emphasized: *"Costs are important, but more important is how to increase income. Good cost management but what needs to be highlights is revenue"*. The argument that environmental costs are not important are also found to be part of financial obstacles for EMA adoption (Chang, 2013).

Conclusion

Adoption of Environmental Management Accounting at a five star hotel in Nusa Dua using contemporary management accounting practices. Hotels use long-term planning and activity-based management (ABC) techniques which are part of contemporary management accounting. Through this application companies can align business strategy and spending structure, as well as the external business environment. Environmental costs are hidden in overhead costs making them difficult to evaluate and analyze. How a company explains environmental costs depends on how it uses the cost information (cost allocation, capital budgeting, process/product design, other management decisions), and the scale or scope of application. It is not always clear whether costs go into the environment or not, some are in a gray zone or may not be classified by some environments. In presenting additional reports on environmental costs, the hotel will consider the cost benefits, if the benefits are greater than the costs incurred, the company will be happy to disclose it. There are limited data obtained in this study, so that it cannot generalize the company as a whole. It is recommended for further research to use hotel samples categorized by star so that they can be used as a comparison, especially related to the application of environmental management accounting practices.

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