

# Analysis of the Implementation of Environmental Accounting in Assessing Environmental Performance

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***Abstract---**This study aims to analyze the implementation of environmental accounting in assessing environmental performance. The research method used in this research is descriptive analysis and included in the type of library research. Based on the results of the study it can be concluded that the implementation of environmental accounting has an impact on company performance, especially environmental performance. The company has an interest in improving environmental performance with the ultimate goal of increasing the profits it receives. One way to improve environmental performance is to implement environmental accounting in corporate accounting practices.*

***Keywords---**Environmental Accounting, Environmental Performance*

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## I. Introduction

Environmental problems, climate change and many natural disasters are important issues and are the center of attention of the company today. The third problem is the impact of environmental pollution, one of which is caused by the growing development of industrial activity in each country. Although economic growth increased due to industrial activities, on the other hand the industry was also a cause of environmental pollution (Kartika Hendra Titisari and Khara Alviana, 2012).

Human activity is recognized as a major driver in global environmental change (Russell, Milne & Dey, 2017). Another opinion says that environmental accounting and reporting is very important. Environmental accounting needs to work as a tool to measure the economic efficiency of environmental conservation activities and the environmental efficiency of the company's overall business activities. The adverse environmental impacts of economic development have become a matter of great public concern throughout the world. It seems that this greater attention can lead to increased costs and therefore lower profits. In addition, accounting also has positive impacts such as improving company performance in the development of a well-articulated environmental costing system to ensure a conflict-free company atmosphere that managers and jobs require for maximum productivity

The company has an interest in improving environmental performance with the ultimate goal of increasing the profits it receives. Companies that have good environmental performance are good news for investors and potential investors. Companies that have a high level of environmental performance will be responded positively by investors. In addition, the increasing public trust in the company is expected to increase finance (Kartika Hendra Titisari and Khara Alviana, 2012).

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This is in line with the theory of eco-efficiency which is essentially producing goods and services at competitive prices and adding value to consumers without sacrificing or damaging the environment (Dian Imanina Burhany, 2013). Meanwhile, according to Hansen and Mowen (2009), eco-efficiency implies an increase in efficiency originating from improved environmental performance.

## II. Literature Review

### 1. Environmental Accounting

Environmental accounting is a term relating to the inclusion of environmental costs in the accounting practices of companies or government institutions. Environmental costs are impacts arising from financial and non-financial aspects that must be borne as a result of activities that affect environmental quality. According to Arfan (2008), environmental accounting is defined as the prevention and or avoidance of impacts on the environment, moving from several opportunities, starting from the re-improvement of events that cause disasters for these activities (Hussain et al., 2020).

Islamey (2016) states, environmental accounting is the activity of recording, measuring and identifying costs related to the environment caused by the company's operational activities that affect the environment and can be used to support management decisions related to company business and as an effort to improve social and environmental responsibility of the company and to find out the operational performance of companies based on environmental protection (Islamey, 2016).

Cohen and Robbins (2011), states that environmental accounting is a type of accounting that includes indirect costs and benefits from economic activities, such as environmental impacts and health consequences of business planning and decisions.

Environmental accounting Guidelines (2005) state that environmental accounting includes identifying the costs and benefits of environmental conservation activities, providing the best means or means through quantitative measurement, and to support communication processes aimed at achieving sustainable development, maintaining beneficial relationships with communities and achieve effectiveness and efficiency and environmental conservation activities.

Based on the above definition, it can be explained that environmental accounting is an accounting in which identifying, measuring, assessing and disclosing costs related to company activities related to the environment.

The main objective of environmental accounting according to Dourala et al. (2003) is to correct information gaps arising from unidentified costs and environmental damage and use of this information to support business decisions.

Adediran & Alade (2013) in Nursamsiah et al (2019) states that environmental accounting when handled properly can provide great benefits for individuals and companies. These benefits include:

- Environmental accounting can increase turnover for companies because of the increased image of companies and products.
- Environmental accounting can make company shares more attractive to investors because of an improved company or product image and environmental risk rating.
- Environmental accounting can guarantee better access and requirements from lending institutions due to favorable environmental risk incidents.
- Environmental calculations ensure compliance with environmental laws which in turn will minimize exposure to future financial losses arising from environmental incidents
- Environmental accounting brings about an increase in company profile as a result of an increase in the area of environmental responsibility.

- Environmental accounting can lead to new discoveries because organizations can recycle what was previously thought to be waste to create new products.

### **III. Environmental Performance**

Bennet and James (1999) define environmental performance as "the company's achievements in managing any interaction between the company's products or services and the environment." Environmental performance describes the company's achievements in managing interactions between the company's product and service activities with the surrounding environment.

Ignatius Bondan Suratno, Darsono and Siti Mutmainah (2006) stated that environmental performance is the company's performance in creating a good environment (green).

Another opinion according to Arfan Ikhsan (2009), environmental performance is the result can be measured from the environmental management system, which is related to the control of environmental aspects. Environmental performance assessments are based on environmental policies, environmental targets and environmental targets.

The branch of environmental accounting that can help improve environmental performance is environmental management accounting (Environmental Management Accounting / EMA), (Xiaomei, 2004). This field is identical to management accounting in charge of providing information for management. In this field, the information presented is information relating to environmental aspects, in physical and monetary units.

Physically, the data collected by EMA is data about the inputs used in the production process in the form of materials, water and energy as well as data on the output produced in the form of products and non-products (waste and emissions). As for monetary terms, the data referred to are data costs associated with these inputs and outputs, which are issued by companies to minimize environmental impacts. Some of these cost data such as material purchase costs or energy purchase costs have been accommodated in traditional management accounting (IFAC, 2005).

### **IV. Research Methods**

The research method used in this research is descriptive analysis and included in the type of library research. This research was made by reviewing data sourced from secondary data that is data obtained from other parties, not directly obtained by researchers from research subjects.

### **V. Results and Discussion**

Indicators used as measures of environmental performance vary widely. According to Patten (2002), measurements of environmental performance must meet three conditions, namely: (1) representing the environmental impacts caused by the company, (2) using or based on the same size for all companies studied, and (3) the data is available for samples selected.

Arfan Ikhsan (2007) states that there are two environmental performance indicators namely quantitative environmental performance indicators and qualitative environmental performance indicators. Quantitative environmental performance indicators are measurable results of the environmental management system related to the control of aspects of the physical environment.

Whereas qualitative environmental performance indicators are measurable results from matters related to the size of non-physical assets, such as procedures, processes of innovation, motivation and enthusiasm experienced by human activity actors, in realizing the organization's environmental policies, targets and targets.

Many people believe that one way to improve environmental performance is to implement environmental accounting in corporate accounting practices (Deegan, 2002). Burnertt and Hansen (2008) clearly state that if a company wants to improve its environmental performance, accounting must be involved in it to carry out the function of collecting, calculating, analyzing and reporting environmental costs and other transactions related to the environment so that it can be used by management to manage environmental aspects of the company.

The application of environmental accounting aims to find out how much the environmental costs incurred in treating waste by using an accounting system so as to minimize costs incurred, can control the responsibility in protecting the surrounding environment. Environmental accounting can also be used to track organizational environmental performance to be more measurable (Pratiwi, 2013).

Through the application of environmental accounting, it is expected that the environment will be preserved, because in implementing environmental accounting the company will voluntarily comply with government policies where the company conducts its business.

Adediran & Alade (2013) in Nursamsiah et al (2019) states that when environmental accounting is handled properly, it can provide great benefits for individuals and companies, including increasing environmental performance and increasing the value of shares and corporate image.

Previous research relating to the implementation of environmental accounting and its relationship with environmental performance has been carried out. Nuryanti, Nurlely and Yuni Rosdiana (2015) who examined the influence of environmental accounting on environmental performance in textile companies, the results of their research found that environmental accounting has a positive influence on environmental performance.

This is also supported by the results of Sari's research (2016) which states that if the company applies environmental accounting, the company's environmental performance will improve. The

same opinion was expressed by Noor, Nurleli and Lestari (2017) which states that the application of good environmental accounting is associated with good environmental performance.

## **VI. Conclusions**

The company has an interest in improving environmental performance with the ultimate goal of increasing the profits it receives. One way to improve environmental performance is to implement environmental accounting in corporate accounting practices.

Through the application of environmental accounting, the company can know and control the environmental costs incurred and on the other hand means the company has voluntarily complied with government policies where the company does business.

## **REFERENCES**

- [1] Aldilla Noor Rakhimah and Dian Agustia. 2009. Effect of Environmental Performance on Corporate Social Responsibility (CSR) Disclosure and Financial Performance of Manufacturing Companies Listed on the Indonesia Stock Exchange. Palembang National Accounting Symposium XII.
- [2] Arfan Ikhsan. 2009. Environmental Management Accounting. First edition. Yogyakarta: Graha Science.
- [3] Ari Retno Handayani. 2010. The Effect of Environmental Performance Environmental Disclosure and Economic Performance and Environmental Disclosure on Economic Performance (Empirical Study of Manufacturing Companies Listed on the Indonesia Stock Exchange). Diponegoro University Faculty of Economics Semarang (Unpublished Thesis).

- [4] Dian Imanina Burhany.2011. Effect of Environmental Accounting Implementation on Environmental Performance and Disclosure of Environmental Information and Its Impact on the Company's Financial Performance. Dissertation. Padjadjaran University Bandung.
- [5] Dian Imanina Burhany.2014. Effect of Environmental Accounting Implementation on Environmental Performance and Disclosure of Environmental Information. SNAB Proceedings.
- [6] Eiffeliena Nuraini F. 2010. Effect of Environmental Performance and Environmental Disclosure on Economic Performance (Study of Companies Listed on the Indonesia Stock Exchange). Diponegoro University Faculty of Economics Semarang (Unpublished Thesis).
- [7] Fitriyani & Siti Mutmainah. 2011. Linkages between Environmental Performance, Corporate Social Responsibility (CSR) Disclosure and Financial Performance. Thesis. Semarang. UNDIP.
- [8] Hansen and Mowen. 2009. Managerial Accounting. Book 1 edition of Jakarta: Four Salemba.
- [9] Hussain, H.I., Kot, S., Thaker, H.M.T. & Turner, J.J. (2020) Environmental Reporting and Speed of Adjustment to Target Leverage: Evidence from a Dynamic Regime Switching Model, *Organizacija*, (forthcoming).
- [10] Ignatius Bondan Suratno, Darsono, and Siti Mutmainah. 2006. Effect of Environmental Performance on Environmental Disclosure and Economic Performance (Empirical Study of Manufacturing Companies Listed on the Jakarta Stock Exchange for the Period 2001-2004). Paper at the National Accounting Symposium 9. Padang, August 23-26, 2006.
- [11] Ingram, R.W. and Frazier, K.B. 1980. "Environmental Performance and Corporate Disclosure". Journal of Accounting Research 18 (2): 614-622.
- [12] Iwata, Hiroki and Okada, Keisuke. 2011. "How does environmental financial performance? Evidence from Japanese manufacturing firms ". Ecological Economics 70: 1691-1700.
- [13] Kartika Hendra Titisari and Khara Alviana. 2012. The Effect of Environmental Performance on Economic Performance. Indonesian Journal of Accounting and Finance.
- [14] Lindrianasari. 2007. Relationship between Environmental Performance and Quality of Environmental disclosure and Corporate Economic Performance in Indonesia. JAAI Vol. 11, pp. 159- 172.
- [15] Luciana Spica Almilia and Dwi Wijayanto. 2007. Effect of Environmental Performance and Environmental Disclosure on Economic Performance. Paper at the University of Indonesia's Faculty of Economics 1st Accounting Conference, Depok.
- [16] Mulyadi. 1997. Management Accounting: Concepts, Benefits and Engineering, Issue 2. Yogyakarta: Section Publishing YKPN School of Economics.
- [17] Mulyadi. 2001. Accounting System. Third Edition. Salemba Empat Publisher. Jakarta.
- [18] Patten, D.M. 1992. "Intra-industry environmental disclosures in response to the Alaskan oil spill: a note on legitimacy theory". Accounting, Organizations and Society 17: 471-475.
- [19] Patten, D.M. 2002. "The relation between environmental performance and environmental disclosure: a research note". Accounting, Organizations and Society 27: 763–773.
- [20] Suratno, Darsono, and Siti Mutmainah. 2006. "Effect of Environmental Performance on Environmental Disclosure and Economic Performance (Empirical Study of Manufacturing Companies Listed on the Jakarta Stock Exchange for the Period 2001-2004)", National Accounting Symposium 9 Padang, August 23-26, 2006.
- [21] Susi Sarumpaet. 2005. "The Relationship Between Environmental Performance and Financial Performance of Indonesian Companies". Journal of Accounting & Finance 7 (2) November: 89-98. Department of Accounting Economics, Faculty of Economics - Petra Christian University.
- [22] Ten, E.E. 2007. "Applying stakeholder theory to analyze corporate environmental performance, Evidence from Australian listed companies". Asian Review of Accounting 15 (2): 164- 184.
- [23] Tira Novi Nuryanti, Nurlily and Yuni Rosdiana. 2015. The Effect of Environmental Accounting on Environmental Performance (in the Bandung Regional Textile Company). Proceedings of the Special Research.