



Contemporary Accounting Case Studies

Vol. 2, No. 2, September 2023

Article 2

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EVALUATION OF ENVIRONMENTAL PERFORMANCE AWARENESS OF EMPLOYEES AT PT X

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ABSTRACT

This study aims to evaluate the environmental performance awareness of employees at PT X. The qualitative descriptive method was adopted with a case study approach. Data were collected from the Annual and Sustainable Report with a questionnaire distributed to 58 employees of PT X consisting of organic and non-organic workers. PT X is engaged in logistics, specifically in managing and developing ports whose operational activities are most directly related to the marine environment. Therefore, the company plays a significant role in the surrounding environment. The employees' awareness of environmental performance is analyzed through their behavior in the company. The results showed that the average score of employees' awareness on a scale of 5 was 4.2. The implication is that the employees are aware of the company's environmental performance.

Keywords: Employee Awareness, Environmental Awareness, Environmental Performance, Logistic Business, Port

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1. INTRODUCTION

Environmental issues have emerged as an essential topic in the global economy. This issue becomes more substantial along with the increasing number of environmental damage, resulting in a greater impact. The world's awareness of these issues can also be seen in the increasing number of national and international environmental organizations as well as regulations aimed at protecting the environment and ensuring sustainable development.

Environmental sustainability necessitates cooperative effort, including companies. Many cases in Indonesia are due to the activities of companies, such as forest fires and environmental pollution in water, land, or air due to waste disposal. This may result from negligence or the company's desire to optimize profits by ignoring environmental costs. Furthermore, this behavior shows the company's disregard for the surrounding environment and community, which is inconsistent with the Triple Bottom Line sustainability concept introduced by Elkington (1997).

Awareness is the first step for a company in carrying out environmental performance. This performance results from the company's efforts to create a good environment as well as implement social and environmental responsibility. Environmental performance can also positively impact the company economically. According to Labatt and White (2002), investors historically used financial screens to make decisions. However, social screens have been currently developed that allow the use of non-financial criteria to express social or environmental concerns in making investment decisions.

Sustainable environmental management by the company is impossible without employee participation. This participation may manifest as employees' awareness and knowledge about the environmental impacts of their daily activities. Steg and Vlek (2008) stated that individuals could contribute significantly to achieving long-term sustainability by adopting pro-environmental behavior patterns. According to Lu et al. (2017), employees spend at least a third of their daily time at work. Therefore, the daily pro-environmental behavior of employees immensely contributes to minimizing the negative impact of their activities on the corporate environment.

Company is one of the factors causing pollution or environmental damage in Indonesia. An instance was an environmental pollution case in 2013 carried out by PT X. The occurrence of this case is due to the dredging activity of the shipping lanes carried out by the company in 2012. It is believed that the disposal of the dredged polluted the bay waters, leading to hundreds of thousands death of groupers belonging to the farmers. At that time, the dredging

activity was under the responsibility of the engineering and information systems work unit. PT X was then reported by the community in an area in Sumatra. Consequently, the Engineering and Information System Manager of PT X, who supervised dredging activities, was found guilty of negligence, which resulted in exceeding seawater quality standards (Mahkamah Agung, 2017). The company was sued for compensation worth more than 200 billion by the community in 2020.

PT X is a branch of PT Y, a State-Owned Enterprise (BUMN) engaged in logistics, specifically port management and development. The operational activities of PT X are mostly directly related to the environment, specifically the sea. Therefore, it is undeniable that port activities contribute to the negative impacts on the environment, such as traffic and operational activities at ports that increase waste, such as liquid, solid, Hazardous/non-Hazardous, and Toxic Materials (B3).

Environmental performance is carried out to comply with regulations, maintain reputation, and minimize the negative impact due to the company's operational activities. According to Khan et al. (2021), green practices were statistically significant in building a positive company image and improving performance. Furthermore, the awareness of environmental performance can minimize and prevent negative impacts, such as unanticipated costs by the company. The costs demanded by the community in 2020 include external environmental failure allegedly caused by PT X's 2012 dredging of shipping lanes.

Few studies have examined the logistics industry, specifically sea transportation and green practices in ports. Du et al. (2019) found two ports in China that were most active in the hinterland strategy and reduced noise, waste, and dust in ports but were not very active in reducing ship emissions. The result was consistent with Aregall et al. (2018), which found that 76 of the world's 365 ports implemented several hinterland green port strategies. The result also showed that the most common green hinterland goal is to reduce air emissions, usually carried out through monitoring programs. On the other hand, this study examines employees' awareness of supporting the company's environmental performance.

The criminal case of pollution by an employee of PT X in 2013 prompted this study to evaluate environmental performance awareness among its employees. Employees' awareness of environmental performance is reflected in their daily behavior within the workspace. Therefore, the analysis was carried out through a survey by distributing questionnaires to employees. The descriptive qualitative method was adopted with a single case study approach.

The results are expected to describe employees' awareness of supporting the company's environmental performance. This study can also recommendations for maintaining and increasing employees' awareness of the company's environmental performance.

2. LITERATURE REVIEW

2.1. ENVIRONMENTAL AWARENESS

Carmi (2013) defined environmental awareness as conscious behavior towards the environment, such as pro-environmental behavior. It can also be defined as understanding issues and the steps to achieve a sustainable environment (Handayani et al. 2021).

Sustainability can be achieved when all facets of society work together to raise awareness. According to Hanisch et al. (2014), awareness is essential in environmental management and protecting living organisms. Hadriana and Hudrasyah (2013) found that environmental awareness positively affects pro-environmental behavior. This indicates that the higher the persons' awareness of the environment, the more likely they are to exhibit pro-environmental behavior.

2.2. ENVIRONMENTAL PERFORMANCE

Environmental performance is a company's ability to preserve and protect the natural environment. Each business sector is responsible for the materials and energy consumed as well as the waste and degradation of resources caused. In the past, businesses were able to acknowledge and ignore the problems they created by categorizing negative environmental consequences as externalities, such as side effects or by-products of unintended and often overlooked actions (Carroll et al., 2018).

According to Carroll et al. (2018), compliance and efficiency are two factors that encourage the company to make some environmental efforts. Furthermore, the management of environmental performance is expected to reduce and prevent potential negative impacts and aimed at minimal or "zero impact". The company can prevent the occurrence of unexpected costs as a result of business activities with the creation of this minimal impact.

Two types of indicators are used to measure environmental performance (Labatt and White, 2002). The first is the measurement of environmental management, which includes compliance, management systems, and integration into strategic decision-making. The second is operational indicators designed to

measure a company's performance, such as energy consumption, material use, emissions, waste, and environmental incidents.

2.3. EMPLOYEES' ROLE

Employees are key stakeholders who support the company's environmental performance. The Human resource function is essential in adapting the organization to new requirements/regulations. It also has the potential to make a significant contribution to the strategic response to these new requirements/regulations. The intersection of sustainability, the natural environment, and human resource management is a new area of rapid development (Jackson et al., 2011; Wagner, 2012).

According to Opatha and Arulrajah (2014), Green Human Resource Management (HRM) assists organizations in achieving goals and contributes significantly to environmental sustainability. Ubeda-Garcia et al. (2021) found that green high-performance work systems, viewed from skills development, motivation, and involvement of human resources, facilitate the development of ambidexterity and contribute to improving environmental performance.

The key to the success or failure of organizational environmental activities can be attributed to employees. Employees' negligence or lack of awareness of their work effects is a common cause of environmental pollution in several companies. Therefore, successful environmental management in an organization requires HRM (Rothenberg, 2003).

2.4. EMPLOYEES' ENVIRONMENTAL AWARENESS

Employees contribute to the successful management of the company's environmental performance. Awareness is the foundation for employees' participation, which is essential for achieving sustainable management of the company's environment. Furthermore, employees' awareness can be reflected in their daily behavior since they spent most of the time at work. These activities may include the use of electricity, paper, water, air conditioning, and the behavior of waste disposal in the company environment.

According to Lu et al. (2017), employees spend at least a third of their daily time at work. Therefore, the daily pro-environmental behavior greatly minimizes the negative impact of workplace activities on the corporate environment. Safari et al. (2018) also stated that organizational personnel, who are active in environmental issues, tend to engage in green behaviors, such as paper recycling, printing on both sides of a sheet, and conserving resources such as water and electricity. This is consistent with the report of Wu et al. (2017)

that employees' environmental knowledge and skills contribute the most to a hotel's green capability.

The company can implement various policies to increase employees' awareness to reflect their behavior, which can promote performance. Sonigo et al. (2012) identified four main categories of policy tools that can promote green behavior. The first tool is regulation and it prohibits or limits employee behavior in a corporate environment. The second tool is economic, which can be in the form of employee incentives or rewards. Information, being the third, relates to environmental efforts that can influence employee behavior decisions. Lastly, behavior directs individuals to make better choices for the environment.

3. STUDY METHOD

The qualitative method was adopted with a case study approach using both primary and secondary data sources. Primary data was obtained through questionnaire surveys, while secondary was obtained through the Annual and Sustainability Report published by the company. The data collection methods used are described as follows.

1. Annual Report and Sustainability Report

PT X has a centralized Annual Report and Sustainability Report published by PT Y. The 2020 Annual Report is used to obtain information related to litigation cases faced by PT X until 2020. Furthermore, the 2020 Sustainability Report obtains information on seawater quality monitoring at PT X.

2. Survey with Questionnaire

Survey is a technique of collecting data or information on a large population using a relatively small sample. This study used a questionnaire survey containing 19 questions to obtain information or data directly from the source. PT X has 148 employees consisting of 84 organic and 64 non-organic. The survey was conducted on organic and non-organic employees since their activities and behavior contribute to the company's daily operations. It aims to obtain data describing employees' awareness of environmental performance.

The questions were designed using references from Zhang et al. (2021) and questions designed to key environmental topics, such as energy, water, emissions, effluents, and waste, in the 2020 Sustainability Report. Furthermore, the references from Zhang et al. (2001) included questions numbered 1 to 13 related to employees' green behavior. The rest were additional questions from studies that focused on environmental performance reported by the company, as shown in Table 2. The questions are needed to obtain data that describes employees' awareness on environmental performance. The assessment of this

questionnaire uses a five-point Likert scale from 1 “strongly disagree” to 5 “strongly agree”.

4. COMPANY PROFILE

PT X is one of the port branches under PT Y, a BUMN engaged in port management and development logistics. PT X is the largest port in Sumatra and plays a significant role in the province’s economic growth. It is one of the ports in Indonesia with three service terminals based on the type of goods served, both exports and imports. They include the container, dry bulk, and multipurpose terminal. PT X Port serves ships with various goods, such as containers, general and bagged goods, as well as liquid and dry bulk. The operational activities at the port currently implement a 24/7 work system. Furthermore, PT Y has implemented the international standard ISO 14001:2015 to support the company’s environmental management. The company also implemented the GRI Standard in corporate sustainability reporting. It focuses on four main topics, namely energy, water, emissions, effluents, and waste, specifically for reporting on environmental performance. The company has disseminated environmental policies in the Sustainability Report, such as by appealing to employees regarding the use of energy and water in the office environment.

5. RESULT AND DISCUSSION

Analysis of Employees’ Awareness

The survey using a questionnaire sheet was distributed to employees using an anonymous filling method on March 10, 2022. The purpose, content, and process of assessing the survey were explained and emphasized the anonymity of the questionnaire to gain employees’ trust. The Sub-Division of Human Resources and Supervisor of the Environmental visited each division and ensured the accuracy of the responses to promote employees to take questionnaires seriously. In this study, 58 employees were obtained from a total of 148, consisting of organic and non-organic. The respondents’ demographic data are shown in Table 1.

Table 1. Respondents’ Demographic Data

Demographic Data		Number	Percentage
Department	Business Compliance	15	26%
	Facilities and Utilities	10	17%
	Commercial	13	22%
	Operations	6	10%
	Finance & Human Resource	13	22%

	Others	1	2%
Job Title	Manager	3	5%
	Supervisor	14	24%
	Staff	36	62%
	TNO	5	9%
Gender	Man	44	76%
	Women	14	24%
Education	S2	3	5%
	S1	38	66%
	D3	8	14%
	SMA/SMK	9	16%
Age	20-30	27	47%
	31-40	19	33%
	41-50	7	12%
	51-60	5	9%

Table 2. Questionnaire Survey Results

No.	Item	Average Score (Scale of 5)
1.	I stay informed of my company's environmental initiatives.	4.3
2.	I actively participate in environmental protection-related training provided by the company.	4.4
3.	I take the initiative to learn environmental protection knowledge to improve environmental protection capabilities.	4.1
4.	I print double-sided whenever possible.	4.1
5.	I use personal water cups or Tumblr instead of disposable paper cups in the office.	4.4
6.	I complete the tasks assigned by the company in an environmentally friendly way.	4.5
7.	I perform the duties specified in the job description in an environmentally friendly manner.	4.3
8.	I express my ideas or opinions regarding environmental issues.	3.9
9.	I promote my colleagues to adopt more environmentally conscious behavior.	4.2
10.	I promote my colleagues to express their ideas and opinions on environmental issues.	4.1
11.	I suggest environmentally friendly practices to managers to increase the company's environmental performance.	4.2
12.	I express my opinion to management when there are potentially not environmentally friendly activities.	4.1
13.	I inform management of potentially environmentally irresponsible policies and practices.	4.1

14.	I use clean water in the office sufficiently.	4.6
15.	I dispose of waste by separating it according to type in the office.	4.3
16.	I turn off the Air Conditioner when it is not needed even though it is still operating hours	4.2
17.	I turn off the lights when not needed, even though it is still operating hours.	4.1
18.	I turn off the computer (shut down) when not in use.	4.4
19.	I prefer to use a tote bag or bag made of cloth instead of a disposable bag such as plastic.	4.2
Total Average Score		4.2

The results showed that the highest score is 4.6 for the item “I use clean water in the office sufficiently”. The implication is that employees are most aware of their practice of using clean water wisely. Meanwhile, the lowest is 3.9 for the item “I express my ideas or opinions regarding environmental issues”. This shows that employees still lack an organizational voice, such as expressing ideas and opinions regarding environmental issues. On a scale of 1 to 5, the average score of employees’ awareness obtained from 58 samples of respondents is 4.2.

Employees are key stakeholders in supporting the company’s environmental performance. According to Rothenberg (2003), the success of environmental management in an organization requires HRM. The questions used include an assessment of employees’ behavior and support for the company’s environmental performance.

Based on the 2020 Annual Report published by PT Y, the litigation cases faced by PT X related to environmental activities are as follows.

Table 3. Litigation Cases Faced by PT X in 2020

No.	Problem Description	Case Status as of December 31 2020
1.	Environmental crime in the increase of seawater quality standard threshold in the waters of ABC Bay is suspected of having been caused by the dredging of shipping lanes in Panjang Port.	Case Closed a. Received Release of Notice of Judicial Review Ruling Number 41 PK/Pid.Sus/2020, which in essence rejected the Request for Judicial Review from the Party Concerned. b. The Party Concerned is free based on the letter of release from Class I Correctional Facility in a city dated September 2, 2020.

In addition to environmental crimes regarding the 2013 increase in seawater quality threshold, PT X is no longer listed as having any environmental-related

charges or administrative sanctions, as shown in Table 3. Environmental problems at the company were no longer mentioned in the news or media publication before the completion of this study. However, there are positive publications about the company's environmental initiatives, such as planting trees and mangrove seedlings. Other actions include the procurement of truck road sweepers or dust cleaners and garbage cleaning ships in support of the green port program.

Table 4. Monitoring of Seawater Water Quality

2020				2019			
Meet Quality Standards		Does Not Meet Quality Standards		Meet Quality Standards		Does Not Meet Quality Standards	
Smt. 1	Smt. 2	Smt. 1	Smt. 2	Smt. 1	Smt. 2	Smt. 1	Smt. 2
9	9	0	0	9	9	0	0

Concerning environmental crimes due to the 2013 increase in the seawater quality threshold, the result showed that 9 out of 9 measurement points in each semester met the quality standards between 2019 and 2020. During this period, PT X has shown interest in preserving the quality of seawater quality, which had previously failed meet the quality standards and led to criminal acts.

6. CONCLUSION AND DISCUSSION

This study found that the employees have environmental performance awareness, as indicated by the questionnaire survey score of 4.2 out of 5. This is also confirmed by the lack of cases, administrative sanctions, or media publications related to environmental violations. Furthermore, PT X shows an increase in seawater quality, which met the quality standards in 2019 and 2020 compared to 2013 when environmental crimes were committed.

This study suggested that the company should implement policies that can promote green knowledge and employees' behavior. Furthermore, PT X can implement several policies as initiated by Sonigo et al. (2012):

1. Regulation: this policy can prohibit or limit employees' behavior that can potentially hinder the company's environmental performance.
2. Economics: this policy can be implemented by providing incentives or rewards to employees whose behavior and knowledge contribute to the company's performance.
3. Information: Regular workshops or socialization concerning the company's environmental efforts can influence employees' behavior decisions.

4. Behavior: this policy can be applied by providing tools or incentives designed to promote individuals to make environmentally responsible decisions.

The limitation of this study is that there is a subjective perception of the questionnaires administered to employees of PT X. Furthermore, data were obtained only from questionnaire surveys and sustainability reports. Therefore, further studies are recommended to conduct Forum Group Discussions or interviews to support the questionnaire survey.

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