

The Difference Between Environmental Costs in Mining Companies Before and After the Issuance of Indonesia Financial Accounting Standards (PPSAK) No. 12 of 2014 Concerning Soil Laying Activities and Environmental Management

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ABSTRACT

This study aims to determine if there are differences in environmental costs in mining companies before and after the publication of Indonesian Financial Accounting Standards PPSAK No. 12 on 2014 concerning stripping activities and environmental management. The study was conducted on all mining companies listed on the Indonesian Stock Exchange, a research sample of 26 companies. Data were analyzed using Paired-samples T Test. This study shows empirical evidence that there are differences between the peeling cost and environmental management cost variables before applying PPSAK No. 12 on 2014 with the cost of peeling and environmental management costs after applying PPSAK No. 12 from 2014.

Keywords : *PPSAK 12 of 2014, Soil Stripping Activities, Environmental Management.*

INTRODUCTION

The mining sector is a sector that plays an important role in supporting national development. Mining activities are often located in river areas which are part of the environment, so that if there is no proper understanding of important aspects of environmental management, this can have negative impacts.

The scope of general mining activities based on the revised 2011 PSAK 33 regulates the Indonesian accounting treatment of peeling and environmental management activities. These two activities have a direct impact on the environment in which the mining company carries out its operational activities. With the revised version of PSAK 33 from 2011, everything can determine the extent of environmental damage and how the company is responsible for environmental management, so mining companies must disclose their information in the financial statements. of the company.

Based on PSAK 33, environmental management costs are costs allocated to prevention activities due to pollution and destruction of the environment. Accounting for General Mining PSAK 33 Revised 2011 briefly addresses two things, namely the costs that must be spent for soil stripping and the costs that must be incurred for environmental management activities to cope with the impacts that occur in the future (Pamungkas & Ruserlistyani, 2015).

The plan to revoke standards governing specific industries is unique and confusing, initially PSAK 33 governed general mining. Then, PSAK 33 underwent a change, which regulates the activity of soil stripping and environmental management. The purpose of the amendment is to abolish industrial PSAKs and only regulate matters relating to mining PSAKs that have not been specifically regulated in other PSAK. But PSAK 33 was eventually revoked with the stipulation of PPSAK No. 12 on 2014, because indirectly environmental management was regulated in PSAK 57 regarding contingency provisions and obligations. However, the activity of stripping the soil layer has not been regulated, so the related regulation is still maintained in the form of ISAK No.29 which complies with IFRS, namely IFRIC 20 Cost stripping in the production phase of an open pit mining (Martani, 2015).

The application of environmental accounting will encourage the ability to minimize the environmental problems it faces. The objective is to improve the efficiency of environmental management by evaluating environmental activities based on environmental costs and economic benefits, and to produce effects on environmental protection. This study aims to analyze whether the stipulation of PPSAK No. 12 on 2014, there are differences in environmental costs in the form of soil stripping and environmental management of mining companies.

Based on the description that has described above, so the main issues that will be empirically proven are:

1. Is there an increase in the cost of peeling the company after PPSAK No. 12 on 2014?
2. Is there an increase in the cost of environmental management in mining companies before and after the adoption of PPSAK No. 12 on 2014?

Based on the description that has described above, so the main issues that will be empirically proven are:

1. There is a difference in the cost of peeling before and after applying PPSAK No. 12 on 2014.
2. There is a difference in the cost of environmental management before and after the adoption of PPSAK No. 12 on 2014.

THEORITICAL

Signalling Theory

One way to reduce asymmetric information is to send signals to third parties, including reliable financial information that will reduce uncertainty about the future prospects of the business. With signal theory, companies provide signals to third parties. in the form of reliable financial information. and reduce uncertainty about the company's future prospects (Kusumastuti, Supatmi, & Sastra, 2008).

Financial statements should provide useful information to investors and creditors, particularly because this group is in the most uncertain conditions, which will be used to make investment, credit, and similar decisions, including cash flow statements because the cash flow statement is part of the financial statements. . In this study, signal theory will be the basis of environmental costs in mining companies before and after the stipulation of PPSAK No. 12 on 2014.

Stakeholder theory

Stakeholder theory relates to the concept of corporate responsibility where corporate responsibility is not only limited to maximizing the profits and interests of shareholders, but must also pay attention to the community, customers and suppliers in within the framework of the company's own operations. The assumptions of the stakeholder theory are based on the claim that the business becomes very large and causes the community to be very closely connected and to pay attention to the business, so the business must be responsible and responsibility more broadly and not limited to shareholders.

Mandatory information disclosure is the financial statements, this information is necessary for stakeholders who influence or are affected by the economic activities of the company. While voluntary disclosure is necessary by influential and non-influential stakeholders in the economic activities of the business. The voluntary report under development is the sustainability report. Thanks to the stipulation of PPSAK No. 12 on 2014, the company can provide more sufficient and complete information relating to soil stripping and environmental management activities.

General Mining Accounting

Since the revocation of PSAK 33, there have been a number of statements of accounting standards that relate specifically to the mining industry, including at ISAK 29, the cost of delamination is divided into two stages. The first step is the cost of peeling at the development stage. At this point, there are no specific rules. The second step is the cost of the coat at the production stage. At this point, it produces benefits in the form of inventory which is regulated in PSAK 14 and increases access through the assets of the peeling activity.

PSAK 64 exploration and evaluation of mineral resource activities, recognition of exploration and evaluation costs are recognized as exploration and evaluation assets. The measure of exploration and evaluation assets is measured at cost. In addition, you can choose the cost model or the revaluation model according to PSAK 16 (2007) or PSAK 19 (revised 2010).

PSAK 57 provisions for contingent liabilities and contingent assets, it is in this PSAK that environmental management costs are regulated after the revocation of PSAK 33 concerning general mining accounting. The cost of environmental management is regulated as a provision for environmental management.

Environmental Accounting Concepts As Corporate Environmental Responsibility

Applying environmental accounting in businesses will reduce the occurrence of environmental pollution around the business. Increase human awareness of the impact of environmental damage that will affect

survival in the future, so that the demands of society are greater. Because preserving the environment in addition to benefiting the surrounding community is also beneficial in the long term for the company.

The acculturation process takes really little time, as it has to be ready for businessmen in conventional knowledge, technology and awareness of business practices. Through the application of environmental accounting, it is expected that the environment will be preserved, because in the implementation of environmental accounting, the company will voluntarily comply with the policies of the government in which it operates. The law stipulates that each company has social and environmental responsibilities which carry out its activities in fields related to natural resources (Lindrianasari, 2007).

So far, financial reports have not been able to present information on environmental empowerment reporting activities. Environmental accounting is an attempt to link the economic interests of the company and the preservation of the environment. With the application of environmental accounting, the results of the financial statements will be holistic.

Accounting in this case, especially in environmental accounting, should be able to support the innovations brought by the company in an effort to prevent environmental pollution for business continuity. As we know, environmental accounting is part of accounting specifically capable of managing costs related to the environment. The ability of the company to implement environmental accounting as part of its activities, should be able to manage the costs related to the environment and, ultimately, the company will be able to achieve sustainable development and to support the sustainability of the business.

METHODOLOGY

Types of research

The research method is quantitative using comparative research. In this study, the researchers wanted to know if there were differences in environmental costs in the form of peeling and environmental management costs in mining companies before and after the stipulation of PPSAK No. 12 on 2014.

Population and Sample

The population of this study consists of all mining companies listed in 2012 on the Indonesian Stock Exchange (IDX). In this study, the companies in the sample were selected on the basis of reasoned sampling. The examples of criteria for this study are as follows:

1. Mining companies listed on the Indonesian Stock Exchange (IDX) from 2011 to 2018.
2. Mining companies that have not experienced delisting during the research year.
3. Mining companies that published complete financial statements during the 2011-2018 research year.

In this study, the researchers used 3 years (2012, 2013 and 2014) before the effective date of PPSAK No. 12 of 2014 and 3 years (2015, 2016 and 2017) after the effective date of PPSAK No. 12 on 2014.

Research variable

In this study, the researchers used the disclosure of mining activities costs as a 2014 PPSAK No. 12 instrument regarding stripping activities and environmental management. The scope of mining activities includes peeling and environmental management, according to PSAK 33 (revised 2011) on general mining accounts.

1. The cost of peeling the soil (BPLT), in this study, was measured by comparing the cost of peeling the soil with income, with the formula:

$$BPLT = \frac{\text{peeling costs}}{\text{Income}}$$

2. The cost of environmental management (PPLH), in this study measured by the environmental management benefit relative to income, with the formula:

$$PPLH = \frac{\text{Provision for environmental management}}{\text{Income}}$$

Data analysis method

This research will use the analysis paired sample t test. The paired sample t-test procedure is used to verify that there are no or no differences between the two variables. The data can consist of two measurements with the same subject or a measurement with several subjects.

RESULTS AND DISCUSSION

Result

Research data

Sampling using reasoned sampling, with the total number of mining companies listed on the 2012 Stock Exchange of 36 companies, then there is one company which in 2014-2018 was struck off, namely Borneo Lumbang Energi & Metal Tbk. In addition, there are 9 companies for which the author has not obtained his financial statements. So the company taken as a sample there are 26 companies.

Research result

1. Descriptive Analysis Results

Table 1
Descriptive Analysis Results

	N	Minimum	Maximum	Mean	Std. Deviation
BPLTbefore	78	,0000	,1012	,005759	,0172256
PPLHbefore	78	,0000	,8694	,025088	,1069185
BPLTafter	78	,0000	,8378	,064762	,1548439
PPLHafter	78	,0000	2,5274	,179505	,4546481
Valid N (listwise)	78				

Source: Data processed in 2020.

Variable cost of peeling (BPLTbefore) has the highest value amounted to 0.1012 and the lowest value of 0,000, and the average value of variable peeling costs (BPLTbefore) is 0.005759, with a standard deviation of 0.017256.

Variable costs for environmental management (PPLHbefore) has the highest value of 0.8694 and the lowest value of 0,000, and the average value of environmental management variable costs (PPLHbefore) is 0.025088, with a standard deviation of 0.1069.

Variable cost of peeling (BPLTafter) has the highest value of 0.8378 and the lowest value of 0,000, and the average value of the variable cost of peeling (BPLTafter) is 0.064726, with a standard deviation of 0.15484.

Variabel costs for environmental management (PPLHafter) has the highest value of 2,5274 which is owned by the company Garda Tujuh Buana Tbk with the code (GTBO) in 2016, this means the cost of environmental management is greater than the income received at the company, and the lowest value is 0,000, and the average value of environmental management variable costs (PPLHafter) is 0.14665, with a standard deviation of 0.259.

2. Test data normality

The data normality test uses the Kolmogorov-Smirnov parametric statistical test. Here are the results of the normality test:

Table 2
Normality Test Results

Variabel	Asymp. Sig. (2-tailed)
BPLTbefore	0,099
PPLHbefore	0,078
BPLTafter	0,283
PPLHafter	0,151

Source: Data processed in 2020.

It appears that the significance value of all variables is greater than the significance level of 0.05, so it can be said that the data in this study were normally distributed.

3. Hypothesis Testing Results

The first hypothesis of this study is "There is a difference in the cost of peeling before and after the application of PPSAK No. 12 of 2014". Tests carried out during the observation period 3 years before and 3 years after the application of PPSAK No. 12 of 2014, the test results are presented in the following table:

Table 3

First Hypothesis Calculation Results

Period	Average value	t-count	significance	Conclusion
BPLTbefore	0,0057	-3,3498	0.001	Ha Received
BPLTafter	0,0647			

Source: Data processed in 2020.

The calculation results show that the significance value of the calculated paired samples T test output is 0.005, the value is less than 0.05 and has a t count of -3.33498, which means that there are differences between the variable peel costs before the application of PPSAK No. 12 of 2014 with the cost of take-off after the adoption of PPSAK No. 12 of 2014, i.e. the initial assumption that states that there are differences in peel cost before and after the implementation of PPSAK No. 12 of 2014 supported.

Table 4
Second Hypothesis Calculation Results

Period	Average value	t-count	significance	Conclusion
PPLHbefore	0,025087	-3,1711	0.002	Ha Received
PPLHafter	0,179505			

Source: Data processed in 2020.

The results of the calculation show that the significance value of the calculation of the output of the T test for the paired samples is 0.002, the value is less than 0.05 and has a t count of 3.1711, which means that there are differences between the environmental management cost variables before the application of PPSAK No. 12 on 2014 with the cost of environmental management after the implementation of PPSAK No. 12 on 2014, i.e. the initial assumption which states that there are differences in peel cost before and after the implementation of PPSAK No. 12 on 2014 supported.

Discussion

Cost of exfoliation of soil before and after application of PSAK No. 12 of 2014

The results of the t-test study of paired samples showed a significance value lower than 0.05 proving that there are differences between the variables of the cost of peeling before the application of PPSAK No. 12 of 2014 with the take-off cost after adopting PPSAK No. 12 of 2014, in other words the initial assumption that there are differences in the cost of peeling before and after the implementation of PPSAK No. 12 of 2014 supported.

In addition, the descriptive statistics also show that there is a difference which increases the average variable cost of peeling before applying PPSAK No. 12 of 2014 (0.0057) with peeling costs after PPSAK No. 12 of 2014. (0.025), this shows that there was an increase in the cost of peeling after the implementation of PPSAK No. 12 on 2014.

The results of the study which stated that there were differences between the peeling cost variables reflected the application of PPSAK No. 12 of 2014 in mining companies may increase the cost of stripping the soil layer in the production phase, according to research Aniela (2012), Angelia & Suryaningsih (2015), Lindrianasari (2007) dan Winarno, (2007) in his research proves that the application of environmental accounting has a positive impact on the financial and environmental performance of the company.

Although the results of this study do not prove the existence of PPSAK No. 12 of 2014 can improve environmental performance, but the results of this study offer the possibility of regulation and legitimacy

of PPSAK No. 12 of 2014 that the benefits future economic costs associated with the stripping activities will go to the relevant company, in accordance with the objectives of PPSAK No. 12 of 2014, the company will benefit only the stripping of the soil layer which can be transformed into supplies and increased access to a greater amount of material that will be mined in the future, since the material removed during stripping of the soil layer at the production stage is not always waste, often is a combination of minerals and waste. In addition, the application of PPSAK No. 12 of 2014 also has the principle of the overall recognition of the cost of stripping the soil layer in the production phase as an asset.

Environmental management costs before and after the implementation of PSAK No. 12 of 2014

The results of the study show that there are differences between the environmental management cost variables before the adoption of PPSAK No. 12 of 2014 with the cost of environmental management after the implementation of PPSAK No. 12 of 2014, in other words the initial assumption which states that there are differences in environmental management costs before and after the implementation of PPSAK No. 12 of 2014 supported.

The results of this study are illustrated by the average value of PPLH after the application of PPSAK No. 12 of 2014 is higher (0.06476) than the average value before the application of PPSAK No. 12 of 2014 (0.179505). These results indicate the existence of the obligation to apply PPSAK No. 12 of 2014 provides for an increase in the provisions that must be issued by mining companies linked to environmental management. The legitimacy theory says that businesses continue to try to ensure that they operate within the framework and standards that exist in the community or environment in which the business is located, where they are trying to ensure that their activities (business) are accepted by third parties as a legitimate activity (Natalia, 2014).

The results of this study show similarities to research conducted by Gray, Kouhy, & Lavers (1995) and Tristianasari & Fachrurrozie (2014), which proves that environmental performance and environmental disclosure simultaneously affect economic performance.

One of the objectives applied by PPSAK No. 12 on 2014 is to implement corporate social responsibility in accordance with the Law of the Republic of Indonesia No. 40 of 2007 on Limited Liability Companies (PT) in Article 74 stipulating that social and environmental responsibility is mandatory for companies managing natural resources and those that do not will hardly be subject.

Although mining companies do not need to be detailed, the function and role of PPSAK No. 12 of 2014 in the form of a calculation of the costs to be incurred in carrying out social responsibility incurred for mining activities as well as demanding losses incurred by the company, so that the company can be responsible for the environment and surrounding communities.

Through the application of environmental accounting, it is expected that the environment will be preserved, because by applying environmental accounting, the company will voluntarily comply with the government

policies in which the company operates. Of course, based on the results of this study, companies, especially the mining sector, should pay attention to environmental management costs as they are considered very important for environmental sustainability due to the mining process.

CONCLUSION

The purpose of this research to determine if there are differences in environmental costs in mining companies before and after the publication of PPSAK No. 12 of 2014 concerning stripping activities and environmental management.

1. The results of the study prove that there are differences between the variables of the peel costs before PPSAK No. 12 on 2014 with the cost of take-off after the adoption of PPSAK No. 12 on 2014, in other terms the initial assumption that there are differences in the cost of peeling before and after the implementation of PPSAK No. 12 on 2014 supported.
2. The results of the study show that there are differences between the environmental management cost variables before the adoption of PPSAK No. 12 of 2014 with the cost of environmental management after the implementation of PPSAK No. 12 of 2014, in other words the initial assumption that there are differences in the costs of environmental management before and after the implementation of PPSAK No. 12 on 2014 supported.

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