THE EFFECT OF ENVIRONMENTAL COSTS AND ISO 14001 CERTIFICATION ON ENVIRONMENTAL INFORMATION DISCLOSURE IN MINING COMPANIES IN INDONESIA

Rosiyani Ismi Dwi Saputri

Faculty of Economics, Ganesha University of Education, Indonesia
(rosiyani@undiksha.ac.id)

Desak Nyoman Sri Werastuti

Faculty of Economics, Ganesha University of Education, Indonesia
(sri.werastuti@undiksha.ac.id)

Putu Sukma Kurniawan

Faculty of Economics, Ganesha University of Education, Indonesia
(putusukma@undiksha.ac.id)

ABSTRACT

This study addresses the issue of environmental information disclosure in the context of mining companies in Indonesia, focusing on the influence of environmental costs and ISO 14001 certification. The disclosure of environmental information is becoming increasingly important as increasing pressure from regulators, the public, and investors who demand transparency over the ecological impact of corporate activities, especially in industries that have a high risk to the environment. The main problem in this study is the low level of environmental information disclosure by mining companies despite the allocation of environmental costs and ownership of ISO 14001 certification. The novelty of this study lies in the simultaneous approach that tests two main factors-environmental costs and ISO 14001-that were previously often studied separately, as well as the specific focus on the Indonesian mining sector that has not been comprehensively explored in environmental accounting studies. This study uses quantitative methods with an associative approach and multiple linear regression analysis. Secondary data was collected from annual reports and sustainability reports of mining companies listed on the Indonesia Stock Exchange (IDX) selected through purposive sampling technique. The results showed that neither environmental costs nor ISO 14001 certification had a statistically significant effect on the level of environmental information disclosure. In conclusion, cost and certification have not been the main drivers of sustainability reporting, so companies and regulators need to revisit disclosure strategies that are more substantial and effective.

Keywords: environmental costs, ISO 14001, environmental disclosure, mining**,** sustainability.

INTRODUCTION

Growing global awareness of environmental issues has created significant pressure for corporations, particularly those operating in high-risk industries such as mining, to improve their environmental responsibility and transparency (Personal, 2023) . Mining activities inherently carry substantial environmental risks, including pollution, habitat destruction, and natural resource depletion, making their environmental performance and disclosure critical (Listiyani, 2017) . The increasing awareness of the importance of environmental protection comes not only from the side of civil society and non-governmental organisations, but also from regulators and institutional investors who have begun to include Environmental, Social, and Governance (ESG) criteria in investment decision-making (Sholikin et al., 2024) . In this context, companies are required not only to carry out social and environmental responsibilities substantively, but also to convey them transparently through adequate information disclosure to the public (Prihandono & Andi, 2016).

In Indonesia, a regulatory framework has evolved to require greater environmental accountability from companies. Financial Services Authority (OJK) Regulation No. 51/POJK. 03/2017 requires sustainability reporting for certain entities, including public companies, which often includes mining companies (Peraturan Otoritas Jasa Keuangan, 2017) . This regulatory push is reinforced by specific laws such as Law No. 3/2020 on Mineral and Coal Mining, which includes strengthened policies for environmental management, reclamation, and post-mining activities (Law No. 3/2020, 2020) . This strong regulatory framework suggests that for mining companies in Indonesia, environmental information disclosure (PIL) is not just a voluntary act driven by reputation or stakeholder goodwill, but rather a legal imperative (Suryanto, 2022) . This shifts the motivation for PIL from merely seeking legitimacy or stakeholder responsiveness to a compliance-based necessity (Su et al., 2023) . Companies bear "environmental costs" as a consequence of their efforts in maintaining environmental quality or as a result of environmental degradation that occurs or has the potential to occur (Rahayudi & Apriwandi, 2023) . These costs reflect the company's commitment to environmental management. Simultaneously, "ISO 14001 certification" serves as a recognised international standard for environmental management systems (EMS), signifying a company's structured approach to managing environmental impacts (Kyle Schrader, 2020)

Despite the increasing importance of environmental performance and management, the extent and quality of "environmental information disclosure" (PIL) by mining companies in Indonesia remains a subject of ongoing research. PIL is essential for stakeholders to assess a company's environmental commitment and performance. This study aims to investigate the influence of two main factors, namely environmental costs and ownership of ISO 14001 certification, on the level of environmental information disclosure by mining companies in Indonesia. These two factors were chosen because they reflect a form of corporate responsibility and commitment to environmental management. Environmental costs reflect the allocation of company resources in an effort to manage and minimise negative environmental impacts, while ISO 14001 certification indicates that the company has adopted a structured and globally recognised environmental management system (BSI, 2015).

Previous research found that environmental costs have a positive and significant influence on environmental information disclosure. This finding indicates that companies that allocate financial resources for environmental management tend to be more transparent in reporting their environmental activities to the public (Christian et al., 2025). However, in research (Anugrawati et al., 2024) found that

environmental costs have no significant effect on profitability. Similar results were also found by (Sugiyarti et al., 2023) which states that environmental costs have no effect on financial performance. Research on the effect of ISO 14001 certification on environmental information disclosure, especially in the Indonesian mining sector, shows more consistent results. Research (Rahmawati & Budiwati, 2018) specifically found that ISO 14001 has a significant positive effect on environmental disclosure in Indonesian mining companies, environmental disclosure in this study using the latest GRI G4 index. Another study found that the ISO 14001 environmental management system has a significant positive effect on the financial performance of mining companies listed on the IDX. Despite its focus on financial performance, this finding indirectly supports the idea that ISO 14001 encourages better management practices that can facilitate disclosure (Sugiyarti et al., 2023).

This study addresses a significant gap in the environmental accounting literature by simultaneously examining the influence of environmental costs and ISO 14001 certification on environmental information disclosure, specifically in Indonesian mining companies (Anugrawati et al., 2024) . Although previous studies show mixed results regarding the impact of environmental costs and often focus on the quantity of disclosures without fully addressing cost measurement challenges or the potential for "Greenwashing" (Yin et al., 2019) , this study offers significant novelty by simultaneously examining the influence of environmental costs and ISO 14001 certification on environmental information disclosure in Indonesian mining companies, a combination of variables that has not been comprehensively explored in this specific context. This novelty is particularly relevant given the unique characteristics of the high-impact mining industry and the evolving environmental regulatory framework in Indonesia, including Law No. 3 of 2020 on Mineral and Coal Mining and OJK Regulation No. 51/POJK.03/2017 (Financial Services Authority Regulation, 2017; Law No. 3 of 2020, 2020) . Thus, this research is expected to provide valuable academic and practical contributions for companies and regulators in Indonesia in encouraging better environmental transparency and accountability.

This research is motivated by the increasingly strong regulatory and social pressures on companies to be more transparent in reporting on their environmental activities. Disclosure of environmental information is one of the most important aspects conceptually in legitimacy theory and stakeholder theory, where companies try to gain trust from society and respond to stakeholder expectations through the delivery of relevant and verifiable information (Su et al., 2023) . The study uses a quantitative approach with an associative design and multiple linear analysis techniques with the results expected to make significant contributions in three main domains.

This research will enrich the environmental accounting literature, particularly with a focus on the mining sector in Indonesia, which has significant environmental impacts and a unique regulatory framework. By simultaneously examining the influence of environmental costs and ISO 14001 certification on environmental information disclosure, this study will provide more comprehensive empirical evidence on the factors driving corporate environmental transparency. In addition, this study will deepen the understanding of the application of Legitimacy Theory and Stakeholder Theory in the context of environmental disclosure, explaining why companies disclose such information to maintain the "social contract" and fulfil stakeholder expectations. By recognising the challenges of measuring environmental costs and the potential for "greenwashing", this research also implicitly contributes to the discussion on how to improve the quality and credibility of disclosures, not just their quantity.

LITERATURE REVIEW

Legitimacy Theory

Legitimacy theory is one of the most widely applied theories in the field of environmental and social accounting. This theory argues that companies operate within the framework of a social contract with society and constantly strive to ensure that their activities are perceived as legitimate by society. Companies that are well accepted by society can support the survival of the company, making it easier for the company to realise its goals.

Environmental Costs

Environmental costs are broadly defined as expenses incurred by companies due to activities that cause environmental damage. In research (Ningsih et al., 2022) further explains that these costs arise from existing poor environmental quality or the potential for future environmental damage. The purpose of environmental accounting is to fully integrate all environmental costs into the Company's financial statements (Ningsih et al., 2022) . This is done to draw the attention of company stakeholders to these costs, thereby encouraging the identification of methods to reduce or avoid such costs while simultaneously improving environmental quality.

There are challenges in recognising comprehensive environmental costs. Definitions of environmental costs emphasise their origin in environmental damage or efforts to achieve environmental goals (Ningsih et al., 2022) . Environmental accounting often uses terms such as "full," "total," and "life cycle" to describe the scope of costs, implying that traditional accounting may underestimate these costs (Universitas Pembangunan Jaya, 2020) . This suggests systemic challenges in recognising and fully quantifying all environmental costs, especially indirect, intangible, or future costs (e.g., long-term remediation, reputational damage, or natural resource depletion costs). If companies struggle to comprehensively identify and measure all environmental costs (beyond direct waste management or prevention), reported environmental costs may not reflect actual environmental investments or impacts, leading to incomplete or potentially misleading disclosures. This could be a contributing factor to the weak correlation between environmental costs and disclosure or financial performance in some studies.

Environmental costs can be categorised based on their nature and timing. According to (Ningsih et al., 2022), the main categories include environmental prevention costs (to prevent pollution), environmental detection costs (to monitor and assess environmental performance), environmental internal failure costs (due to environmental damage before release to the environment), and environmental external failure costs (due to environmental damage after release to the environment) (Ningsih et al., 2022) . Other classifications include maintenance and replacement costs due to waste and exhaust gases, and environmental prevention and management costs (Universitas Pembangunan Jaya, 2020) . In empirical studies, environmental costs are often quantified by comparing expenditures incurred for corporate social responsibility (CSR) activities related to the environment with the company's net profit after tax (Putri, 2024).

ISO 14001 Certification

ISO 14001 is an internationally recognised standard that provides a structured framework for environmental protection (Mandiri, 2004). The standard is part of the wider International Standards Series, applicable to organisations of all types and sizes, with a particular focus on measurable environmental

performance outcomes. The primary objective of ISO 14001 is to enable organisations to develop, implement and maintain policies that encourage environmentally responsible and sustainable business practices (Mandiri, 2004). The standard also requires a commitment to continuous improvement in environmental management.

ISO 14001 is often used as a proxy for environmental performance in research, often as a binary *dummy* variable (1 if certified, 0 if not) (Wahyuningrum et al., 2025). While this certification signals a commitment to a structured environmental management approach, it does not directly measure the actual reduction in environmental impacts or the level and quality of environmental disclosures (Widyawati and Hardiningsih, 2022) . Using ISO 14001 as a simple binary proxy can simplify a complex reality. A company may obtain certification for legitimacy or marketing purposes without achieving substantial environmental improvements or engaging in highly transparent disclosure. This raises questions about depth of commitment versus mere compliance, and whether the certification translates into substantive environmental improvements or just a "green" image.

Obtaining ISO 14001 certification offers several strategic advantages, including fulfilling compliance requirements, building strong trust with stakeholders, supporting a long-term strategic focus on sustainability, driving overall sustainable development, and significantly enhancing corporate reputation and public trust. In addition, this certification can also contribute to reduced operational costs and increased long-term revenue (Widyawati and Hardiningsih, 2022).

There is a dual motivation for ISO 14001: compliance versus strategic benefits. The benefits mentioned, such as "fulfilling compliance requirements" and "building trust with stakeholders," as well as "supporting long-term strategic focus" and "encouraging corporate social responsibility," suggest that companies pursue ISO 14001 for a combination of compliance-driven reasons (e.g., avoiding sanctions, gaining regulatory legitimacy) and strategic advantages (e.g., cost reduction, enhanced reputation, better market position, attracting green investors). The underlying motivation for obtaining ISO 14001 certification may affect the level and quality of environmental disclosures. If the primary driver is only compliance, disclosure may be minimal and symbolic. If driven by genuine strategic intent to gain competitive advantage and improve long-term sustainability, disclosures may be more proactive, comprehensive and substantive to leverage the certification for market advantage (Ivan Adyaksana & Vitta Adhivinna, 2022).

Environmental Information Disclosure

Environmental information disclosure refers to the information presented by a company regarding its relationship with the environment (Widyawati and Hardiningsih, 2022). It includes both favourable and unfavourable information. This disclosure serves as the company's communication about its environmental impacts and actions taken for environmental sustainability to external parties (Wahyuningrum et al., 2025). Environmental disclosure is critical for several reasons: it reveals potential environmental liabilities and commitments, allowing investors to make more informed judgements regarding financial risk (Setiadi & Agustina, 2020). It significantly improves corporate image, reputation, investor confidence, and consumer loyalty (Ivan Adyaksana & Vitta Adhivinna, 2022). Fundamentally, it is critical to ensure that economic growth does not come at the expense of environmental conservation and sustainability.

Environmental disclosure can be categorised as mandatory (required by law) or voluntary (done by choice) (Setiadi & Agustina, 2020). In addition, disclosure can be symbolic, focusing on qualitative narratives and minimal quantitative data, or substantive, characterised by transparent and detailed reporting that reflects good environmental performance (Pramasita et al., 2022). A common measurement method for environmental disclosure is often content analysis of a company's annual report or sustainability report. Global Reporting Initiative (GRI) standards (e.g., GRI G4 or GRI Standards 2021) are widely used as guidelines for this measurement (Wahyuningrum et al., 2025). The general approach is to assign a *dummy* variable score (1 if the item is disclosed, 0 otherwise) to each environmental indicator specified by the GRI. The total score obtained is then compared to the maximum possible score (for example, 32 or 34 items for GRI G4/2021) to obtain a disclosure index (Widyawati and Hardiningsih, 2022).

METHOD, DATA, AND ANALYSIS

This research adopts a quantitative approach with an associative design. The quantitative approach was chosen to test the causal relationship between the independent variables (environmental costs and ISO 14001 certification) and the dependent variable (environmental information disclosure) using numerical data and relevant statistical analyses. The associative design aims to identify the extent to which changes in one variable relate to changes in the other variable, providing an understanding of the direction and strength of the relationship.

The population of this study is all mining companies listed on the Indonesia Stock Exchange (IDX). The mining sector was chosen due to the characteristics of its operations that have significant environmental impacts and are subject to strict environmental regulations in Indonesia.

Sampling will use *purposive sampling* method with the following criteria: Mining companies listed on the IDX during the specified observation period. Companies that consistently publish annual reports or sustainability reports during the observation period. Companies that have complete data related to environmental costs and ISO 14001 certification status that can be accessed. Companies that disclose environmental disclosure items in their reports, which allows measurement of the dependent variable.

The data used in this study is secondary data, which will be collected from annual reports and sustainability reports of mining companies listed on the Indonesia Stock Exchange (IDX). These reports can be accessed through the official IDX website (www.idx.co.id) or each company's website. In addition, data regarding ISO 14001 certification status will also be verified through company reports or relevant certification databases to ensure the accuracy of the information.

Data analysis will be conducted using multiple linear regression. Before conducting the regression analysis, a series of classical assumption tests will be conducted to ensure that the regression model meets the statistical requirements and the results are valid. Hypothesis testing will be conducted using the t statistical test to test the effect of each independent variable partially on the dependent variable. Furthermore, the F statistical test will be used to test the effect of independent variables simultaneously on the disclosure of environmental information. Finally, the coefficient of determination (R^2) will be analysed to see how large a proportion of the variation in the dependent variable (environmental information disclosure) can be explained by the independent variables (environmental cost and ISO 14001 certification).

RESULT AND DISCUSSION

This discussion presents an in-depth analysis of the research findings, integrating results from descriptive statistics, classical assumption tests, and regression analysis. The discussion will review the implications of the findings and the potential reasons behind the observed relationships, considering both the original and log-transformed models.

The classical assumption test is fundamental to ensure the validity of the regression model. The analysis confirmed that the assumptions of multicollinearity (*Tolerance* value > 0.1 and VIF < 10) and heteroscedasticity (random *scatter* on the residual *scatterplot*) were met for the original model. These findings reinforce confidence in the impartiality and efficiency of the regression coefficients. However, the assumption of normality of residuals was violated for the original model, as indicated by the Kolmogorov-Smirnov test (Sig. = 0.038 < 0.05), although visual inspection (Histogram and P-P Plot) appeared to indicate normality. In statistical practice, formal tests are generally prioritised over visual assessment, especially when the sample size is not large. This violation implies that the statistical inference (p-value) from the original model may be less reliable. To address this normality issue, an attempt was made to log transform the variables (LNY, LNX1, LNX2). The log-transformed model showed improved residual normality, with the Kolmogorov-Smirnov test yielding a significance value of 0.081 (>0.05), which is acceptable. In addition, the Durbin-Watson statistic for the log-transformed model is 2.095, indicating no autocorrelation. Crucially, during the log transformation, the variable LNX2 (log of ISO Certification) was excluded from the analysis. This occurred due to a warning indicating that the argument for the natural logarithm function was less than or equal to zero, or that the variable became constant or had missing correlations. This is directly due to the nature of the ISO Certification variable (x2), which is likely a binary variable (0 or 1, as indicated by its descriptive statistics: Min=0.00, Max=1.00). The natural logarithm of zero is undefined, leading to missing values, and the natural logarithm of one is zero. If many companies do not have ISO certification (x2=0), LNX2 will be a missing value for those cases. If all other cases have x2=1, then LNX2 will be constant (0). Variables with constant values cannot be used as predictors in regression because they have no variance, which explains the "constants or missing correlations" warning. This methodological issue significantly limits the usefulness of the log-transformed model, as it can only assess the effect of LNX1 (log of Environmental Costs) on LNY (log of GRI 300 Disclosures), not the entire set of independent variables. This limitation means that the log-transformed model, while successfully overcoming the normality assumption, cannot fully replicate the scope of the original model by including ISO certification.

ISO certification. This forces the main interpretation to either still rely on the original model, despite the normality violation, or to recognise the limited scope of the transformed model. This highlights the challenges of applying certain transformations to certain types of variables and underscores the importance of understanding the characteristics of the data before performing transformations.

Based on the multiple linear regression results (original model), Environmental Costs (x1) was found to have an Unstandardised Coefficient (B) of -0.953. This indicates a negative relationship, suggesting that an increase in environmental costs is associated with a decrease in environmental information disclosure. However, this relationship is not statistically significant, with a significance value (Sig.) of 0.265, which is greater than the alpha level of 0.05. This finding suggests that, in the context of Indonesian mining companies, environmental costs individually do not serve as a significant driver for environmental information disclosure. The observed negative direction, although not significant, is

counterintuitive to some theoretical perspectives that might predict a positive association (e.g., firms that invest more in environmental management will also disclose more). Possible explanations for this insignificant and negative association may include: (1) Environmental costs may be primarily incurred due to mandatory compliance or remediation efforts, rather than proactive initiatives aimed at increasing transparency. Companies facing high remediation costs may even be less inclined to disclose extensively. (2) The measurement of environmental costs may not fully capture strategic intentions or qualitative aspects of environmental management that could lead to disclosure. (3) Firms with higher environmental costs may be firms with more significant environmental impacts, and they may strategically choose to limit disclosure to avoid scrutiny. The log-transformed model, which only included LNX1, also produced insignificant results for LNX1 (Sig. = 0.800), further reinforcing the lack of a statistically significant relationship between environmental costs and environmental information disclosure in this study.

Furthermore, the regression analysis (original model) revealed that ISO 14001 Certification (x2) has an Unstandardised Coefficient (B) of -11.332. This indicates a negative relationship, implying that firms with ISO 14001 certification tend to have lower environmental information disclosure scores compared to firms without certification, assuming other factors are constant. However, this relationship is also not statistically significant, with a significance value (Sig.) of 0.138, which is greater than the alpha level of 0.05. This insignificant negative coefficient for ISO 14001 certification is significant and counterintuitive. Conventional wisdom and some theoretical frameworks suggest that obtaining ISO 14001 certification, which emphasises systematic environmental management and continuous improvement, will lead to increased transparency and disclosure. The findings of this study do not support such expectations. Several factors may contribute to this unexpected result: Companies may regard ISO 14001 certification as a sufficient signal of their environmental commitment, thus reducing the perceived need for extensive public disclosure. Certification itself becomes a key communication tool. The focus of ISO 14001 may be more on internal process control and operational efficiency than external reporting. Certification may be driven by market pressures (e.g., supply chain requirements) rather than a genuine commitment to transparency. The high saturation of ISO-certified companies in the sample (over 90%) might limit the variability required to detect significant effects. It is important to note that ISO 14001 Certification could not be included in the log-transformed model due to data transformation issues, which prevented further analysis of its impact with the transformed data.

This study's finding that environmental costs (x1) do not significantly affect GRI 300 Disclosure (y) is consistent with several existing studies (Safitri & Wahyuningrum, 2021). For example, it explicitly states that "environmental costs... have no significant influence on environmental disclosure" (Sig. 0.598). Although not directly on disclosure, other citations such as and report no significant effect of environmental costs on firm value or profitability, respectively, suggesting a broader trend that environmental expenditure, by itself, may not directly translate into increased transparency or financial benefits. further support this by indicating that profitability (which is often associated with managing environmental costs) has "no influence on environmental disclosure". Meanwhile, ISO certification (x2) has no statistically significant effect on GRI 300 Disclosure (y) in line with research (Verawaty et al., 2020) which explicitly states that environmental performance, as measured by ISO 14001 certification, has "no significant impact on environmental disclosure" (Sig. 0.079). Similarly, it found that environmental management system (ISO

14001) "has no significant influence on environmental disclosure" (Sig. 0.296), suggesting that certification alone may not lead to more extensive disclosure.

CONCLUSION

Based on the data analysis that has been conducted, several main points can be concluded regarding the effect of environmental costs and ISO 14001 certification on environmental information disclosure in mining companies in Indonesia. Classical Assumption Test: The original regression model shows fulfilment of multicollinearity and heteroscedasticity assumptions. However, the assumption of normality of residuals was violated based on the Kolmogorov-Smirnov test, although visual inspection showed a near normal pattern. An attempt was made to log-transform the variables to address the normality issue, which successfully improved the normality of the residuals and showed the absence of autocorrelation. However, this transformation meant that the ISO Certification variable could not be included in the transformed model due to the binary nature of the variable, which resulted in undefined or constant logarithm values.

Therefore, the main interpretation remains to focus on the original model, recognising the limitations of normality. Explanatory Power of the Model (R Square): The regression model shows that Environmental Costs and ISO 14001 Certification collectively explain only 8.7% of the variation in GRI 300 Disclosures (Adjusted R Square = 0.087). This indicates that most of the variation in environmental disclosure cannot be explained by these two variables. Simultaneous Effect (F Test): Simultaneously, Environmental Costs and ISO 14001 Certification have no statistically significant effect on GRI 300 Disclosure (Sig. F = 0.102 > 0.05). This means that the regression model as a whole is not significant in predicting the level of disclosure of environmental information. Partial Effect (t-test) like Environmental Cost: Has no statistically significant partial effect on GRI 300 Disclosure (Sig. = 0.265 > 0.05). The negative coefficient indicates an inverse relationship, albeit insignificant, which is contrary to general theoretical expectations. ISO 14001: Certification has no statistically significant partial effect on GRI 300 Disclosures (Sig. = 0.138 > 0.05). The negative coefficient also indicates an insignificant inverse relationship, contrary to the assumption that certification would encourage increased disclosure.

Overall, the findings of this study suggest that, in the context of mining companies in Indonesia, environmental costs and ISO 14001 certification are neither key nor statistically significant drivers for the level of environmental information disclosure. This result challenges some conventional theoretical assumptions regarding the relationship between environmental efforts and transparency. This implies that other factors not included in this model are likely to be more influential in shaping the environmental disclosure practices of companies in this sector.

These findings, which often contradict parts of the literature, underscore the complex nature of the determinants of environmental disclosure. The literature suggests that factors such as firm size, environmental performance, board characteristics and stakeholder pressure play a more prominent role in driving environmental transparency.

To advance the understanding of environmental disclosure practices in the Indonesian mining sector, future research should address methodological limitations, such as small sample sizes and variable measurement. In addition, investigations should be expanded to cover a range of potential drivers, including moderating and mediating variables, as well as qualitative aspects of disclosure. By adopting a more

nuanced and comprehensive analytical approach, researchers can provide deeper insights and promote greater environmental transparency in this important industry.

REFERENCES

Anugrawati, S., Asmeri, R., & Meriyani, M. (2024). The Effect of Company Size, Environmental Costs and Environmental Performance on Profitability in Mining Companies Listed on the Indonesia Stock Exchange (IDX) for the 2016-2020 Period. *Ekasakti Pareso Journal of Accounting*,*2* (1), 72-79. https://doi.org/10.31933/epja.v2i1.1040

BSI. (2015). BSI Standards Publication Environmental management systems - Requirements with guidance for use. In *Bsi* (Issue July 2009).

Christian, F., Said, D., Nagu, N., Corporate, P., & Responsibility, S. (2025). *The Relationship Between Environmental Costs, Corporate Social Responsibility Disclosure And Profitability*. *14*(01), 208–220.

Ivan Adyaksana, R., & Vitta Adhivinna, V. (2022). Does Environmental Information Disclosure Mediate the Effect of Environmental Cost on Environmental Performance? *KnE Social Sciences*,*2022* , 720-733. https://doi.org/10.18502/kss.v7i14.12024

Kyle Schrader. (2020). *ISO 9001 vs ISO 14001_ Navigating Standards for Quality and Environmental Management*. Encompass Consultant. https://www-encompassconsultants-com.translate.goog/article-posts/iso-9001-vs-iso-14001?_x_tr_sl=en&_x_tr_tl=id&_x_tr_hl=id&_x_tr_pto=sge#:~:text=Definisi and Purpose of ISO 14001 ISO 14001, competitive%2C and trust from stakeholders.

Listiyani, N. (2017). The Impact of Mining on the Environment in South Kalimantan and its Implications for Citizens' Rights. *Al-Adl: Journal of Law*,*9* (1), 67. https://doi.org/10.31602/al-adl.v9i1.803

Mandiri, P. D. C. (2004). *ISO 14001 | Environmental Management System*.

Ningsih, N. W., Nurlaili, N., & Zuliansyah, A. (2022). Environmental Accounting and Corporate Financial Performance in Sharia Economics. *Scientific Journal of Islamic Economics*,*8* (3), 3349. https://doi.org/10.29040/jiei.v8i3.5466

Financial Services Authority Regulation. (2017). *POJK No. 51 /POJK.03/2017 concerning the implementation of sustainable finance for financial services institutions, issuers, and public companies.* 1–15.

Pramasita, S. E., Baridwan, Z., & Nurofik. (2022). *Environmental Accounting In Symbolic And Substantive Disclosure*. *13*(1), 85–94.

Pribadi, A. (2023). *Ministry of Energy and Mineral Resources - Media Centre - News Archive - Ministry of Energy and Mineral Resources Determines 1,215 People's Mining Areas*. Ministry of Energy and Mineral Resources. https://www.esdm.go.id/id/media-center/arsip-berita/kementerian-esdm-tetapkan-1215-wilayah-pertambangan-rakyat-

Prihandono, I., & Andi, A.. (2016). *Responsibility of Multinational Corporations in International Human*

Rights Law.

Putri, S. K. (2024). The effect of environmental costs and environmental performance on profitability. *Kompak: Scientific Journal of Accounting Computerisation*, *14*(1), 196–204.

Rahayudi, A. M. P., & Apriwandi, A. (2023). Environmental Performance, Environmental Costs and Financial Performance. *Owner*,*7* (1), 774-786. https://doi.org/10.33395/owner.v7i1.1334

Rahmawati, S., & Budiwati, C. (2018). Company Characteristics, ISO 14001, and Environmental Disclosure: A Comparative Study in Indonesia and Thailand. *Journal of Accounting and Business*,*18* (1), 74. https://doi.org/10.20961/jab.v18i1.268

Safitri, L., & Wahyuningrum, I. F. S. (2021). Accounting Analysis Journal the Determinants of Environmental Disclosure in Indonesia, Malaysia, and Thailand Article Info Abstract. *Accounting Analysis Journal*,*10* (3), 166-172. https://doi.org/10.15294/aaj.v10i3.51436

Setiadi, I., & Agustina, Y. (2020). Environmental Disclosure, Profitability and Firm Value. *Compartment: Scientific Journal of Accounting*,*17* (2), 198-207. https://doi.org/10.30595/kompartemen.v17i2.5807

Sholikin, A., Erison, Y., Shoimah, S., & Surur, M. (2024). *Green Politic: Towards a Sustainable Future* (A. Sholikin (ed.)). UNISDA PRESS.

Su, W., Wei, N., Yuan, Z., & Guo, S. (2023). The Impact of Environmental Information Disclosure on the Efficiency of Enterprise Capital Allocation. *Sustainability (Switzerland)*,*15* (14). https://doi.org/10.3390/su151411215

Sugiyarti, L., Agustin, R., Hanah, S., & Asmilia, N. (2023). The Role of Environmental Management, ISO 14001 and Environmental Cost in Improving Financial Performance. *Innovation*,*10* (1), 105. https://doi.org/10.32493/inovasi.v10i1.p105-112.30403

Suryanto, R. (2022). Reconstruction Of Corporate Social Responsibility Regulations In The Area Around The Company Based On The Value Of Justice. In *Unissla* (Vol. 33, Issue 1).

Law No. 3 of 2020. (2020). Law Number 3 of 2020 concerning Amendments to Law Number 4 of 2009 concerning Mineral and Coal Mining. *Central Government*, *2*(4), 255.

Pembangunan Jaya University. (2020). Environmental accounting module. *Environmental Accounting Module*, 35.

Verawaty, Merina, C. I., Jaya, A. K., & Widianingsih, Y. (2020). *Determinants of Environmental Disclosure in Indonesia*. *117*(Gcbme 2018), 217-226. https://doi.org/10.2991/aebmr.k.200131.047

Wahyuningrum, I. F. S., Oktavilia, S., Suryarini, T., Wahyudin, A., Pratista, A. R. H., & Wulandari, M. P. (2025). Environmental disclosure practices in mining sector companies in Indonesia. *E3S Web of Conferences*,*605*. https://doi.org/10.1051/e3sconf/202560503042

Widyawati and Hardiningsih. (2022). Environmental Performance Through Environmental Disclosure S3. *Journal of Accounting and Tax*, *23*(1), 1–15.

Yin, H., Li, M., Ma, Y., & Zhang, Q. (2019). The relationship between environmental information disclosure and profitability: A comparison between different disclosure styles. *International Journal of Environmental Research and Public Health*,*16* (9). https://doi.org/10.3390/ijerph16091556