ENVIRONMENTAL COST MANAGEMENT: BURDEN OR VALUE-CREATING INVESTMENT?

Alimuddin[1]
Universitas Hasanuddin, Makassar, Indonesia
alimuddin@unhas.ac.id

Asri Usman[2]
Universitas Hasanuddin, Makassar, Indonesia
asriusman@unhas.ac.id

Mutiara Khairunnisa Suhardi[3]
Universitas Hasanuddin, Makassar, Indonesia
mutiarakhairn@gmail.com

Nabila Nurul Azizah[4]
Universitas Hasanuddin, Makassar, Indonesia
nabilanazizahs@gmail.com

Abstract

The increasing focus on Sustainability and ESG (Environmental, Social, and Governance) has made environmental costs a key concern for Indonesian corporations, particularly in the energy sector where implementation costs are significant. This literature review, which analyzed ten scientific articles published between 2021 and 2025, sought to determine if these environmental costs act as a financial burden or a strategic investment impacting Return on Assets (ROA). The synthesis revealed mixed empirical evidence. The majority of studies (50%) support the view that environmental costs are long-term strategic investments that positively influence profitability, corporate reputation, and competitiveness, aligning with aspects of Legitimacy Theory. Conversely, 30% of the findings suggest these costs are a financial burden, negatively impacting net profit, often due to short-term market inefficiencies. The remaining 20% indicated no significant effect on profitability, showing a disconnect between environmental spending and financial performance fluctuations. This variation highlights a literature gap concerning the true impact of environmental costs within Indonesian energy companies. The study concludes that environmental expenditures spark a three-way debate investment, burden, or no effect underscoring the need for management to reassess strategies for converting environmental compliance costs into sustainable economic value.

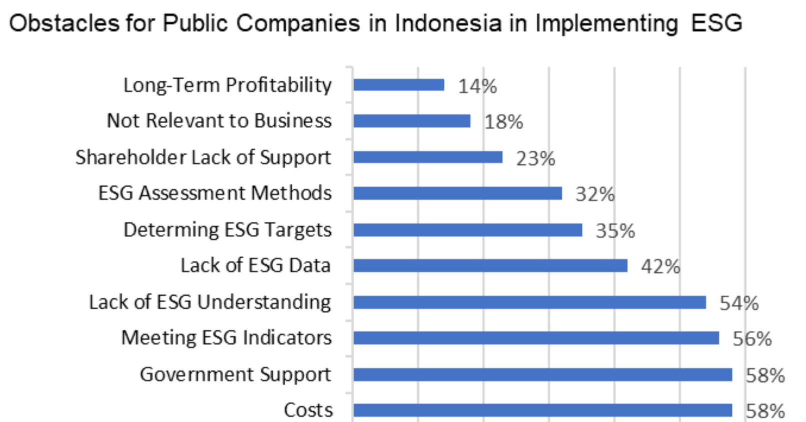
Keywords: Burden, Environmental Costs, Financial Performance, Investment

INTRODUCTION

Environmental issues have long been a major concern in global business practices. Companies are no longer judged solely on their financial performance, but also on their contribution to environmental and social sustainability. The concept of Environmental, Social, and Governance (ESG) has become an important indicator in assessing a company's reputation and competitiveness in a market that is increasingly aware of ecological impacts. In this study, our main focus is on the "E" (Environmental) aspect, where environmental costs are the main manifestation.

The main challenge for companies in Indonesia in implementing Environmental, Social and Governance (ESG) is the costs that must be incurred, especially at the beginning of implementation. A survey by PwC of 345 investors and analysts in 30 countries globally, as well as 15 in-depth interviews through the 2023 PwC Investor Survey, which saw a 66% increase in response rate from 2022, found that 75% of investors agree that disclosure of ESG commitment costs is very important and that companies need to disclose the monetary value of their impact on society and the environment (PwC, 2024). However, based on information from Goodstats.id, some companies are still constrained by the costs associated with ESG implementation.

Figure 1.
Challenges Faced by Public Companies in Indonesia in Implementing ESG



Source: goodstats.id (2025)

Figure 1 shows that costs are the main obstacle for most public companies in Indonesia. As many as 58% of the 150 companies surveyed in Indonesia still face obstacles in terms of costs and government support. On the other hand, investors are urging companies to disclose the amount of costs incurred by companies to fulfill ESG disclosures.

From an Islamic perspective, environmental management is a mandate that cannot be separated from economic activity. This is explained in Surah Al-A'raf: 56, which prohibits humans from causing damage on the earth after Allah has set it in order.

QS. Al-A’raf: 56

وَلَا تُفْسِدُوْا فِى الْاَرْضِ بَعْدَ اِصْلَاحِهَا وَادْعُوْهُ خَوْفًا وَّطَمَعًاۗ

"Do not cause damage on the earth after it has been properly set in order".

This verse serves as a normative basis for every entity's obligation to minimize the environmental impact of its activities. In the context of environmental accounting, environmental costs cannot be viewed merely as an expense, but as a form of investment in maintaining the balance of nature and preventing damage that could lead to greater economic and social burdens in the future. Thus, environmental costs are an instrument of ecological accountability that aligns with the principles of sustainable development.

The allocation of environmental costs is considered an investment in environmental management that demonstrates the company's consistency and builds public trust in its social responsibility. Including these costs in financial reports can enhance a company's reputation, which in turn will support competitive advantage and become a strategy to increase profits. In addition, environmental costs can also improve long-term financial performance through increased efficiency, reduced risk of fines, enhanced company image, and attracting investors (Naja *et al*., 2024). Therefore, the fundamental question that arises for management is whether these costs are merely an expense (cost) that reduces profitability or a long-term strategic investment that increases company value?

Many studies show that good environmental management can improve operational efficiency, strengthen corporate reputation, and ultimately have a positive impact on financial performance. However, empirical findings on the relationship between environmental costs and financial performance still show mixed and inconclusive results. Some studies show that companies that invest in environmental management have a higher Return on Assets (ROA) than companies that ignore environmental aspects. On the other hand, there are studies that state that environmental costs have no significant effect on financial performance. These differing results indicate a gap in the literature that needs to be examined more systematically. Therefore, this literature review aims to synthesize, classify, and analyze published academic findings on the effectiveness of environmental costs on corporate financial performance. This review is expected to contribute theoretically to the development of management accounting science and provide practical insights for companies in designing sustainability strategies that are not only environmentally friendly but also financially profitable.

REVIEW OF LITERATURE

Legitimacy Theory

The basis of the legitimacy theory is that issuers will continue to exist if the public is aware that issuers operate under an assessment system that is in line with the system that applies in society. Legitimacy theory explains corporate behavior in implementing and developing voluntary social and environmental information disclosure to fulfill social contracts that enable recognition of corporate goals and survival in an uncertain environment (Schiopoiu Burlea, 2013). Dowling & Pfeffer (1975), explain that companies that obtain legitimacy will always strive to balance the values or norms of behavior that apply in the society of which they are a part so as not to potentially incur threats in the form of legal, social, or economic sanctions.

Stakeholder Theory

Gutterman (2023), states that the sustainability of a company does not only depend on shareholders, but also on the company's ability to create satisfaction for all stakeholders. Stakeholder theory emphasizes that companies need to provide information with integrity to stakeholders, one of which is through the disclosure of sustainability reports aimed at building stakeholder trust in the company (Liana, 2019).

Financial Performance

A company's financial performance is a formal indicator that reflects its operational effectiveness in a given period and its ability to generate and increase profits, commonly referred to as profitability (Hayaah, 2023). Profitability assessment is important for evaluating a company's effectiveness in utilizing its resources to achieve optimal financial results. Profitability, measured using Return on Assets (ROA), serves to measure a company's ability to manage assets to generate future profits. It is comprehensive and relevant, especially in the context of costs and environmental performance, which often require significant investment in waste processing assets (Kotango *et al*., 2024).

Environmental Costs

Environmental costs are cost elements used to measure the level of uncertainty (Kotango *et al.,* 2024). Environmental costs include all expenditures to manage environmental impacts, such as pollution prevention or waste management costs (Aulia *et al*., 2025). Environmental costs are budgeted as a form of corporate responsibility for damage or pollution caused by the company's activities, so environmental costs can be used as a measure of a company's environmental performance. By calculating the ratio of environmental costs to revenue, companies can get a clear picture of their efficiency in dealing with the environmental consequences of their operations (Alimbudiono & Laurencia, 2024).

RESEARCH METHOD

This study employs a qualitative approach using literature review as the research method. Qualitative research using the literature review method is a comprehensive academic activity that includes the analysis and synthesis of quantitative and qualitative research findings in the same literature review report with the aim of producing independent and up-to-date findings, with the process of examining a phenomenon of social behavior and academic development academically based on scientific literature (Yam, 2024). In this study, a literature review was used to gather more in-depth information from published scientific articles on whether environmental costs are merely a burden on companies or an investment in their future profits. The data collection method used in this study was documentation. The documentation method is the process of collecting historical data by reviewing various written or digital sources such as official reports, scientific articles, books, and so on to gain an in-depth understanding of the phenomenon being studied (Agustini *et al*., 2023). This technique is not merely copying data, but involves interpretation, theory development, data validation, and comprehensive understanding by researchers to produce new approaches or theories. The researchers collected scientific articles through the Google Scholar search engine using the keywords "environmental costs," "green accounting," "financial performance," and "profitability." The criteria for selecting the scientific articles we reviewed were: (1) scientific articles that examine the effectiveness of environmental costs on corporate financial performance, (2) articles published between 2021 and 2025, (3) research objects reviewed were companies in the energy sector, and (4) environmental costs were measured using the formula of environmental costs and environmental performance was measured using the ROA formula. The selection of the energy sector as the object of study is based on the characteristics of the energy sector, which is highly dependent on nonrenewable resources and produces large-scale waste that has the potential to cause environmental pollution.

RESULTS AND DISCUSSION

Based on the 10 main research articles reviewed, various empirical findings were obtained. 50% of the findings support the view that environmental costs serve as strategic investments. 30% of the findings indicate that environmental costs act as a financial burden. On the other hand, 20% of the findings show that environmental costs are not significant to profitability. These results are further interpreted as follows:

Table 1.
List of Review Journal Articles

No	Title; Authors; Year	Object	Method	Research Results
1	Pengaruh Biaya Lingkungan, *Leverage*, dan *Firm Size* terhadap Kinerja Keuangan; Hernisya Faradina & Shafrani Dizar; 2025.	Energy Sector	Panel Data Regression	Environmental costs have a positive effect on financial performance.
2	Pengaruh *Green accounting*, CSR, Kinerja Lingkungan dan Ukuran Perusahaan terhadap Kinerja Keuangan; Erly Nadila, Johan Ananda Adi Saputra, Suryani Yuli Astuti; 2025.	Mining Companies	Multiple Linear Regression	*Green accounting has a negative effect on financial performance.*
3	*Green Accounting and Sales Growth: A Strategy Toward Sustainable Financial Performance in Energy Companies in Indonesia*; Puspita Handayani, Ayumi Rahma, Adhitya Putri Pratiwi, Listiya Ike Purnomo; 2025.	Energy Sector	Multiple Linear Regression	*Green accounting has a negative effect on financial performance.*
4	Peran Kinerja Lingkungan dalam Meningkatkan Kinerja Keuangan Sektor Energi; Desy Ismah Anggraini, Pramandyah	Energy Sector	Regresi Linier Berganda	Environmental costs have a positive effect on financial performance.

	Fitah Kusuma, Nida Dini Rofi'ah; 2024.			
5	Kinerja Lingkungan, Biaya Lingkungan dan Ukuran Perusahaan terhadap Kinerja Keuangan dengan *Corporate Social Responsibility* sebagai Variabel Intervening; Farhan Habib Siregar, Syahyunan, Zuwina Miraza; 2022.	Mining Companies	Partial Least Square	Environmental costs have a negative and significant effect on company performance.
6	Dampak Penerapan *Green Accounting*, Kinerja Lingkungan dan Biaya Lingkungan terhadap Profitabilitas pada Perusahaan Pertambangan yang Terdaftar di Bursa Efek Indonesia Tahun 2018-2022; Juliyanti Kotango, Gregorius Jeandry, Iqbal Muhammad Aris Ali; 2024.	Mining Companies	Multiple Linear Regression	Environmental costs have a positive effect on company profitability.
7	Pengaruh Kinerja Lingkungan, Biaya Lingkungan, *Leverage* dan *Firm Size* terhadap Profitabilitas pada Perusahaan Pertambangan di Indonesia; Randi Afifah Aurelia, Yetty Murni, Muhammad Rabiul Yatim; 2022.	Mining Companies	Multiple Linear Regression	Environmental costs do not affect company profitability.
8	Pengaruh Biaya Lingkungan dan Kinerja Lingkungan terhadap Profitabilitas pada Perusahaan Pertambangan Sektor Batu Bara; Audi	Mining Companies	Panel Data Regression	Environmental costs have a positive effect on company profitability.

	Aulia, Hasbudin, Fitriaman, St Salmah Sharon; 2025.			
9	*The Influence of Environmental Performance, Environmental Costs, and Environmental Disclosure on Profitability In The Time of Covid-19*; Novianti Tri Wardhani; Diah Armeliza; Dwi Handarini; 2023.	Energy, basic materials, industrials, consumer non cyclicals, consumer cyclicals, and healthcare sectors.	Panel Data Regression	Environmental costs do not affect profitability.
10	*The Influence of Environmental Cost, Environmental Performance, and Carbon Emission Disclosure on Financial Performance*; Qinaya Azahra Kamila & Putu Prima Wulandari; 2024.	Mining companies	Multiple Linear Regression	Environmental costs have a positive effect on a company's financial performance.

Source: data that has been processed by the author (2025)

Environmental Costs as Investment

Environmental costs are considered a form of corporate responsibility. Environmental costs can be a long-term investment because the form of responsibility incurred can maintain the company's good name and strengthen its position (Anggraini *et al.,* 2024). The environmental costs incurred by the company can also increase investor confidence and the company's operational efficiency in the long term (Faradina & Dizar, 2025). Kotango *et al*. (2024) and Aulia *et al.* (2025) state that if companies include environmental costs in their annual reports, they can increase their competitiveness, which can be used as a strategy to increase company sales and profits. When companies pay more attention to the needs of stakeholders, it will also be easier for them to export products to other countries, especially developed countries that are highly concerned about the environment (Kamila & Wulandari, 2024).

The research results are also supported by legitimacy theory, which states that when companies pay more attention to the surrounding environment by allocating environmental funds, the public's view of the company will become positive because the company cares about the surrounding environment (Kotango *et al.,* 2024). This finding is also supported by stakeholder theory, which states that stakeholders are entitled to information related to company activities. If a company manages its environmental costs well, its financial performance will also be good, thereby increasing stakeholder trust in the company and attracting investors to invest in the company (Aulia *et al*., 2025).

Environmental Costs as a Burden

There is an opinion that environmental costs tend to act as a financial burden rather than a strategic investment. Although companies implement green accounting to gain legitimacy and public acceptance, the short-term negative impact on revenue shows that sustainability efforts have not yet yielded significant financial benefits. This may be due to a lack of appreciation from the public and investors for environmental practices, which is not in line with the stakeholder concept, where there should be positive returns (Nadila *et al.,* 2025). Siregar *et al.* (2022) provide the view that companies still classify these expenditures as additional costs that directly erode net profit. In addition, Handayani *et al.* (2019) reveal that there is inefficiency in converting environmental compliance costs into economic value that can increase profitability, thus placing these expenses as a short-term financial burden whose effectiveness needs to be reviewed.

Environmental Costs Do Not Affect Profitability

Fluctuations There is another opinion that concludes that environmental costs incurred as a form of corporate responsibility are not always directly proportional to profitability due to situations where company profitability is unstable from year to year, so that environmental expenditures often have no significant economic consequences and do not affect profitability in the short term (Aurelia *et al.,* 2022). Wardhani *et al.* (2023) also state that a company's profitability level is not always proportional to the amount of its environmental expenditure. Environmental costs are only reflected in annual reports but do not show a direct relationship with profitability performance. This contradicts legitimacy theory, which states that companies should consider and act in accordance with social norms and the interests of various parties besides shareholders.

Other Findings

Based on the results of studies examining the effectiveness of environmental costs on financial performance, the five studies with positive results tended to have a larger sample size of between 13 and 23 companies with a research period of between 3 and 5 years. These positive results support the view that spending on the environment (green accounting) is a long-term investment that enhances reputation, reduces the risk of legal sanctions, and ultimately has a positive impact on profitability. Meanwhile, the three studies with negative results tended to have a sample size of between 7 and 24 companies with a research period of between 3 and 5 years. These negative results support the view that environmental costs are still seen as a pure burden that directly reduces company profits in the short term without immediately providing significant reputational benefits or increased revenue. This is in line with the argument that environmental costs require large investments in the early stages, thereby suppressing profitability. On the other hand, two studies stated that the effectiveness of environmental costs had no effect on financial performance, with a sample size of between 15 and 22 companies. These results, which show no direction of influence, may indicate that the environmental cost measurement methods used do not fully represent the total environmental costs of companies, making the relationship with profitability less clear.

The study by Wardhani *et al*. (2023) not only focused on companies in the energy sector but also included companies in the basic materials, industrial, non-cyclical consumer, cyclical consumer, and healthcare sectors, all of which have the potential to damage the environment through their operational activities but with varying intensities. This can be interpreted to mean that when the research covers too many sectors with different characteristics, the impact of environmental costs can become inconsistent and neutralize each other, resulting in insignificant overall results.

CONCLUSION

Corporate environmental spending in Indonesia, particularly in the energy sector, is controversial because it is viewed from three different perspectives. There is an optimistic view that sees it as a long-term strategic investment for reputation, competitiveness, and attracting investors. Conversely, a pessimistic view considers it a financial burden that erodes profits because it is not yet valued by the market and is inefficient. Meanwhile, the neutral view is that environmental costs often have no direct correlation with fluctuations in profitability, contrary to the theory that social responsibility should bring definite financial benefits. Theoretically, the findings of diverse relationships, namely positive, negative, and no effect, show that the legitimacy theory in the context of environmental costs is not always empirically proven in Indonesia, especially in companies engaged in the energy sector, particularly in the short term. Theoretically, energy sector companies in Indonesia need to improve the quality of their disclosure (transparency and detail) of environmental costs to ensure that stakeholders recognize and appreciate these efforts as part of the company's value, which is in line with the findings of the PwC Investor Survey. This study has limitations. First, the selection is limited to research conducted on companies in the energy sector, as the results cannot be generalized to other sectors with different environmental risk profiles and environmental cost structures. Second, the selection of a limited publication time frame, namely 2021-2025, may not fully reflect significant changes in trends that occurred before 2021, which could provide deeper historical context on the shift in views on environmental costs. Third, most of the research articles reviewed focus on short-term profitability as measured by ROA and environmental costs, which are often long-term investments, so their impact may be more reflected in company value indicators (such as Tobin's Q and Market Value Added).

REFERENCES

Agustini, Grashinta, A., Putra, S., Sukarman, Guampe, F. A., Akbar, J. S., Lubis, M. A., Maryati, I., Ririnisahawaitun, Mesra, R., Sari, M. N., Tuerah, P. R., Rahmadhani, M. V., & Rulanggi, R. (2023). *MetodePenelitian Kualitatif* (Irmayanti, Ed.; Pertama). Mifandi Mandiri Digital. https://www.researchgate.net/publication/380401514_METODE_PENELITIAN_KUALITATIF_Teori_Panduan_Praktis_Analisis_Data_Kualitatif

Alimbudiono, R. S., & Laurencia, C. (2024). *Sekilas Pandang akuntansi Lingkungan* (Tim Alfasyam Jaya Mandiri, Ed.; Pertama, Vol. 1). Alfasyam Jaya Mandiri. https://repository.ubaya.ac.id/46765/1/Ria%20Sandra_Sekilas%20Pandang%20kuntansi%20Lingkungan.pdf

Anggraini, D. I., Kusuma, P. F., & Nida, D. R. (2024). *Peran Kinerja Lingkungan dalam Meningkatkan Kinerja Keuangan Perusahaan Sektor Energi*. *x*, 1–5. Simetris: Seminar Nasional Pembangunan Ekonomi Berkelanjutan Dan Riset Ilmu Sosial 2024. https://www.ejurnal.teraskampus.id/index.php/simetris/article/view/221

Aulia, A., Hasbudin, Fitriaman, & Sharon, S. S. (2025). Pengaruh Biaya Lingkungan Dan Kinerja Lingkungan Terhadap Profitabilitas Pada Perusahaan Pertambangan Sektor

Batu Bara. *General Accounting Journal (GAJ) P-ISSN*, *1*(1). 66-77. https://gaj.uho.ac.id/index.php/gaj/article/view/10

Aurelia, R. A., Murni, Y., Yatim, M. R., & Afifah, P. K. R. (2022). Pengaruh Kinerja Lingkungan, Biaya Lingkungan, *Leverage*, dan *Firm Size* Terhadap Profitabilitas Pada Perusahaan Pertambangan Di Indonesia. *SINTAMA: Jurnal Sistem Informasi, Akuntansi Dan Manajemen*, *2*(3). doi.org/10.54951/sintama.v2i3.393

Dowling, J., & Pfeffer, J. (1975). *Pacific Sociological Association Organizational Legitimacy: Social Values and Organizational Behavior. Source: The Pacific Sociological Review*, 18(1), https://journals.sagepub.com/doi/abs/10.2307/1388226

Faradina, H., & Dizar, S. (2025). Pengaruh Biaya Lingkungan, *Leverage* dan *Firm Size* terhadap Kinerja Keuangan. *Jurnal Ekonomi Trisakti*. https://doi.org/10.25105/jet.v5i2.23761

Gutterman, A. S. (2023). *Stakeholder Theory*. papers.ssrn.com/sol3/papers.cfm?abstract_id=4387595

Handayani, P., Rahma, A., Putri Pratiwi, A., & Ike Purnomo, L. (2025). *Green Accounting and Sales Growth: A Strategy Toward Sustainable Financial Performance in Energy Companies in Indonesia*. *Journal of Accounting for Sustainable Society (JASS*, 43–50. doi.org/10.35310/jass.v7i01.1442

Hayaah, A. N. (2023). Pengaruh Penerapan Green Accounting Dan Kinerja Lingkungan Terhadap Kinerja Keuangan Perusahaan Manufaktur Sub Sektor Logam Dan Sejenisnya Yang Terdaftar Di Bursa Efek Indonesia. *Jurnal Kajian Ilmiah Akuntansi Fakultas Ekonomi UNTAN (KIAFE)*, *1*(2), 121–140. https://jurnal.untan.ac.id/index.php/ejafe/article/view/62891/0

Isbahi, M. B., Zuana, M. M. M. ., & Mariana, E. R. . (2022). The Technology Strategy in Website Communication Media in Improving Business Activities. *Majapahit Journal of Islamic Finance and Management*, *1*(2), 126–138. https://doi.org/10.31538/mjifm.v1i2.17

Kamila, Q. A., & Wulandari, P. P. (2024). The Influence of Environmental Cost, Environmental Performance and Carbon Emission Disclosure on Financial Performance. *International Journal of Research on Financial & Business (IJRFB)*, *2*(1), 3032–7806. doi.org/10.70575/ijrfb.v2i1.6

Kotango, J., Jeandry, G., & Ali, I. M. A. (2024). Dampak Penerapan Green Accounting, Kinerja Lingkungan dan Biaya Lingkungan terhadap Profitabilitas pada Perusahaan Pertambangan yang Terdaftar di Bursa Efek Indonesia Tahun 2018-2022. *Jurnal Eksplorasi Akuntansi*, *6*(1), 86–102. https://doi.org/10.24036/jea.v6i1.1443

Liana, S. (2019). Pengaruh Profitabilitas, Leverage , Ukuran Perusahaan dan Dewan Komisaris Independen terhadap Pengungkapan Sustainability Report. Jesya (Jurnal Ekonomi Dan Ekonomi Syariah), 2(2), 199-208. doi.org/https://doi.org/10.36778/jesya.v2i2.69

Nadila, E., Saputra, J. A. A., & Astuti, S. Y. (2025). Pengaruh Green accounting, CSR, Kinerja Lingkungan dan Ukuran Perusahaan Terhadap Kinerja Keuangan Pada Perusahaan Pertambangan Yang Terdaftar Di BEI Periode 2021-2023. JAKUMA : Jurnal Akuntansi Dan Manajemen Keuangan, 6(1), 38-57. https://doi.org/10.31967/jakuma.v6i1.1496

Naja, N., As'illah, & Pratama, V. Y. (2024). Environmental Performance, Biaya Lingkungan Dan Firm Size Terhadap Kinerja Keuangan Perusahaan Pertambangan Yang Terdaftar Di Bursa Efek Indonesia Nailun Naja , As'illah. *Jurnal Akuntansi, Manajemen & Perbankan Syariah*, *4*(6), 1–14. doi.org/https://doi.org/10.32699/jamasy.v4i6.8245

PwC. (2024, February 7). *94% investor meyakini pelaporan perusahaan tentang kinerja keberlanjutan mengandung klaim tanpa bukti: Survei Investor Global PwC 2023*. www.pwc.com. https://www.pwc.com/id/en/media-centre/press-release/2024/indonesian/survei-investor--global-pwc-2023.html#:~:text=Investor%20juga%20menginginkan%20informasi%20mengenai%20dampak%20perusahaan%20terhadap,lingkungan%20ataumasyarakat%2C%20naik%20dari%2066%25%20pada%20tahun%202022.

Schiopoiu Burlea, A., Popa, I. (2013). Legitimacy Theory. In: Idowu, S.O., Capaldi, N., Zu, L., Gupta, A.D. (eds) Encyclopedia of Corporate Social Responsibility. Springer, Berlin, Heidelberg. doi.org/10.1007/978-3-642-28036-8_471

Siregar, F. H., Syahyunan, & Miraza, Z. (2022). Terhadap Kinerja Keuangan Dengan Corporate Social Responsibility Sebagai Variabel Intervening. *Inovatif : Jurnal Ekonomi, Manajemen, Akuntansi, Bisnis Digital Dan Kewirausahaan*, *1*(2), 187–205. doi.org/10.55983/inov.v1i2.114

Triandini, E., Jayanatha, S., Indrawan, A., Putra, G. W., Iswara, B. (2019). Metode Systematic Literature Review untuk Identifikasi Platform dan Metode Pengembangan Sistem Informasi di Indonesia. In *Indonesian Journal of Information Systems (IJIS* (Vol. 1, Issue 2). doi.org/10.24002/ijis.v1i2.1916

Wada, F. H., Pertiwi Anna, Hasiolan, M. I. S., Lestari, S., Sudipa, I. G. I., Patalu, J. S., Boari, Y., Ferdinan, Puspitaningrum, J., Ifadah, E., & Rahman, Abd. (2024). *BUKU AJAR METODOLOGI PENELITIAN* (Pertama). PT Sonpedia Publishing Indonesia. https://www.researchgate.net/publication/377223521

Wardhani, N. T., Armeliza, D., & Handarini, D. (2023). The Influence of Environmental Performance, Environmental Cost, and Environmental Disclosure on Profitability in The Time of Covid-19. *International Journal of Current Economics & Business Ventures*, *1*(3), 568–578. https://scholarsnetwork.org/journal/index.php/ijeb

Yam, J. H. (2024). Kajian Penelitian: Tinjauan Literatur Sebagai Metode Penelitian. *Jurnal Empire*, *4*(1), 61–71. https://www.researchgate.net/publication/380638533