



Do the Environmental, Social, and Governance (ESG) Affect Financial Performance: Empirical Study at Indonesian Manufacturing Firm's

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ABSTRACT

This study analyzes the effect of environmental, social, and governance (ESG) information on the financial performance of 11 manufacturing firms listed on the Indonesia Stock Exchange (2018–2023) with ESG scores from Refinitiv. Using a quantitative approach and panel data regression via Stata, the findings show that individually, ESG components have a negative and insignificant effect, while the overall ESG score has a positive but also insignificant effect on financial performance. Simultaneously, ESG has a positive impact. The model explains 11.18% of the variation in financial performance, with the remaining 88.82% influenced by other factors.

INTRODUCTION

Sustainability reporting is now increasingly recognized as a form of transparency that is getting attention and continues to increase throughout the world. This trend is not only valid in developed countries, but is also increasingly significant in developing countries, where this report is starting to become part of future business strategies. Indonesia is one of the developing countries that discloses the highest information in the Sustainable Report from 27 other countries, namely 81 percent. This information is based on the results of a survey conducted by GlobeScan and the Global Reporting Initiative (GRI) in 2020.

This assessment shows that the transparency of the performance of most companies in Indonesia has met the environmental, social, and governance (ESG) disclosure standards across their business processes. The Indonesian government also supports companies to implement sustainability reports through the Financial Services Authority (OJK, in Indonesia) Regulation Number 51/POJK.03/2017 about the Implementation of Sustainable Finance for Financial Services Institutions, Issuers, and Public Companies, which refers to encourage economic stability and inclusion by considering the synergy between economic, social, and environmental factors (Chandra, Sacipto, & Muktiono, 2022). As global awareness of environmental and social issues regarding the importance of sustainability disclosure increases, investors and stakeholders are beginning to disclose ESG performance as one of the indicators used in a company's ability to determine its competitiveness and prospects (Wan Mohammad & Wasiuzzaman, 2021). However, the level of ESG indicators is not always consistent across sectors or regions. Some sectors may still be less aware of the importance of sustainability reporting, one of the reasons being the lack of specific regulations that require companies to report ESG in the required sustainability reports (Bergman, Henriksson, & Taheri, 2010).

Based on data from the World Resource Institute (WRI) in 2014, Indonesia was ranked sixth as the country with the largest carbon emissions in the world, with an emissions level reaching 1.981 billion tons per year (Samadhi, 2018). Indonesia also occupies first place as the country with the largest carbon emissions in Southeast Asia. Industry is required to be responsible for environmental, social, and governance (ESG) impacts (IEA, 2022), especially for the manufacturing sector, because this sector has significant resource consumption and environmental footprints. Historically, the production process in manufacturing companies has often had an impact and is detrimental to the environment, such as water and air pollution, greenhouse gas emissions, and exploitation of natural resources (Chen, et al., 2022). In addition, aspects of work safety, efficient use of resources, and supply chain management are also major factors that are considered. Manufacturing companies that actively participate in reducing their carbon footprint are not only an important step in supporting national environmental policies, but also a strategy that can drive growth, increase profitability, and improve global competitiveness, which increasingly prioritizes sustainability.

Financial performance is the ability of management to manage finances in a company adequately. In the success of achieving overall financial performance, the company cannot be sequestered from the role of stakeholders (Kasmir, 2021). On the other hand, investors may conduct an evaluation when assessing financial performance by reading, viewing, and analyzing it. Then, it is also used to monitor information about conditions that occur in the corporate future days. On the other hand, investors may conduct an evaluation when assessing financial performance by reading, viewing, and analyzing it. Then, it is also used to monitor information about conditions that occur in the corporate future days (Nasution, 2023). Then, the company will be supported by stakeholders if the company can operate, make decisions, and carry out its business activities with the aim of long-term sustainability. Stakeholders view that companies that have good ESG disclosure will have a positive leverage on the corporate financial performance. This is following stakeholder theory, which means that ESG disclosure can produce better financial performance because it guarantees trust from stakeholders. The greater the trust of stakeholders in the business, the better the resources received by the firm. Stakeholder trust can also increase trust in products and influence sales profit targets, which, of course, will have an impact on the profitability of a firm (Rabinowitz, 2020). Legitimacy theory also provides insights related to ESG disclosure in building and maintaining legitimacy in the public view and among stakeholders.

Several prior studies have identified the linkage among ESG performance and financial performance, with mixed findings and empirical evidence. Velte (2017) found that the ESGP (environmental, social, governance performance) positively and significantly impacts financial performance on the German Prime Standard listing firms at DAX30, TecDAX, and MDAX. Similar research was also conducted by Gold and Md Taib (2023); Al Amosh et al. (2023), which showed that sustainability initiatives in companies can increase investor interest. However, other studies show negative findings on ESG performance on financial performance, such as research from Alareeni and Hamdan (2020); Junius et al. (2020); DasGupta (2022); and Minggu et al. (2023), with negative results on social and governance performance. The firm's value is not only dependent on the specific measure of return on assets (ROA) from uncertain circumstances encountered by corporations, to elucidates for companies that prevails in investment arrangements (Sadi'ah, 2018). In the context of sustainability, many factors can be included to test or see the impact on financial value or performance.

This study proposes to examine the influence of Environmental, Social, and Governance (ESG) performance on the firm's financial performance, especially in firms whose shares are registered on the Indonesia Stock Exchange (IDX) and the Refinitiv database (LSEG). Refinitiv or the London Stock Exchange Group (LSEG) is a global company that provides financial market data and infrastructure, helping financial institutions and professionals with analysis, risk management, trading, and decision making. With a focus on efficiency, innovation, and compliance, Refinitiv is a strategic partner for

investment managers, banks, multinational companies, and researchers worldwide. Financial performance in this study is measured with the return on assets (ROA) proxy.

THEORETICAL REVIEW

Stakeholders' Theory

Stakeholders' are a group that has an important role in the success of a-governance (Freeman & McVea, 2005). Stakeholder theory essentially emphasizes that companies are not only responsible for their own interests but also must provide benefits to stakeholders (Chen, et al., 2022; Mahajan, Lim, Sareen, Kumar, & Kumar, 2023). A company does not only prioritize shareholders or one party, but also needs to build business relationships with all stakeholders, such as employees, communities, environmental organizations, and the government (Fosu, Fosu, Akyina, & Asiedu, 2024). Stakeholder theory suggests that the information disclosed by companies is financial; an assessment of financial ratios plays a crucial role for investors and stakeholders to gather firms of information (Sarwani & Husain, 2021). Not only for financial information, but also non-financial information that can be used as a means of communication and sustainability for companies, such as ESG disclosure.

Legitimacy Theory

Legitimacy theory was first expressed by Dowling and Pfeffer in 1975. This theory focuses on the interaction between a company and society (Velte P. , 2023). Legitimacy theory explains how trust and recognition of an authority, institution, or practice are recognized and accepted by the community or relevant stakeholders. Ogunode (2022) explains that legitimacy theory aims to help managers understand the stakeholder environment and effectively control relationships between business environments. This practice will be a consideration for stakeholders to increase or with more ESG disclosure, implying that the firm is disposed to legitimize its activities in the public view (Al Amosh, Khatib, & Ananzeh, 2023). On the other hand, the regulatory environment is essential in creating corporate governance practices, and no disregard for implications on financial performance (Nasution, Wardhani, Sa'diah, Simanjuntak, & Ekawati, 2024).

Environmental, Social, Governance (ESG)

ESG is a framework used to evaluate a company or organization in a way that is considered environmentally friendly, socially responsible, and well-managed. In business sustainability, ESG disclosure is the right solution to increase awareness of corporate environment, social, and governance. The importance of information transparency in sustainability reporting is highly emphasized in companies. This shows that companies that are more transparent about ESG disclosure incline to have better performance opposed to companies that do not show transparency (Truant, Borlatto, Crocco, & Sahore, 2024).

Financial Performance

A financial performance relates to how the firm manages and utilizes financial resources to reach its business goals. A potential corporation to fulfill its financial targets is highly dependent on the support it receives from its stakeholders (Myšková & Hájek, 2017). Stakeholders will support businesses in the modern era that run operations and make decisions following the Sustainable Development Goals. And if the company implements good corporate performance, the company can generate significant long-term profits, and this can benefit stakeholders in the firm (Yang, 2023).

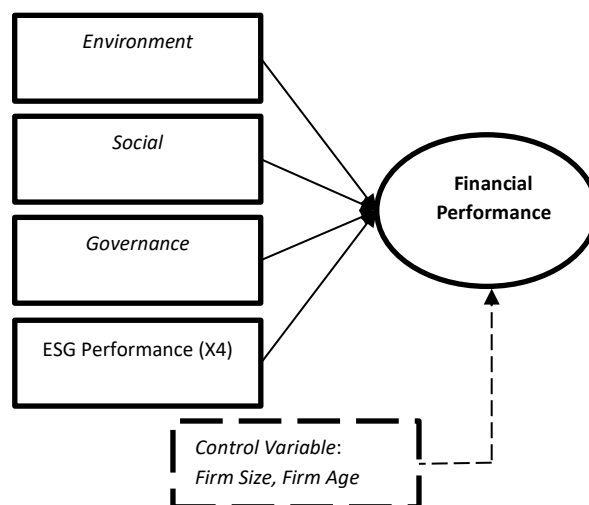


Figure 1. Proposed Research Framework

Source: Adopted by (Alareeni & Hamdan, 2020; DasGupta, 2022; Al Amosh, Khatib, & Ananzeh, 2023)

The implementation of environmentally friendly practices in a company can almost always improve operational efficiency, such as increasing investor interest in providing capital for business continuity at a more advanced level. Thus, good environmental disclosure will enable the corporation to realize's potential in financial performance. The study conducted by Alareeni and Hamdan (2020) revealed that environmental factors have a positive impact on performance at US S&P-listed companies. While from the Levant countries (Jordan, Palestine, Syria, and Lebanon) context, it is too confirm ensuring to maximize financial performance with the positive affect of environment performance disclosure (Al Amosh, Khatib, & Ananzeh, 2023). Later, DasGupta (2022) averred that the shortfall in financial performance could be influenced by environmental controversies over the ESG performance of 27 developed countries and 10 developing countries. This study argues the first alternative statement hypothesis (H1) states that environmental has a significant impact on financial performance.

The social performance disclosure also positive impact on the firm's financial performance. The implementation of high social factors in the company will role for increase in increasing financial performance. This is due

to the high level of public and consumer trust in the company, good social performance will also increase employee loyalty and enthusiasm. That way, the company will have a greater opportunity to get financial support and investment to support business growth and expansion. Alareeni and Hamdan (2020) revealed that CSR has a positive impact on performance at US S&P-listed companies. Hereinafter, from the Levant countries, it is too confirm ensuring to maximize financial performance with the positive affect of social performance disclosure (Al Amosh, Khatib, & Ananzeh, 2023). In the development empirical model, the corporate environmental CSR implementation implies the green innovations that drive corporate social performance (Fosu, Fosu, Akyina, & Asiedu, 2024). This study argues the second alternative statement hypothesis (H2) stated that social has a significant impact on financial performance.

Similarly, with the implementation of governance, it can maximize the environmental and social factors on the corporate financial performance. Good governance can also encourage effective and responsible decision-making and lengthy lead to sustainable financial performance. Alareeni and Hamdan (2020) revealed that corporate governance has a positive impact on performance at US S&P-listed companies. Furthermore, from the Levant countries context, it is too confirm ensuring to maximize financial performance with the positive affect of governance performance disclosure (Al Amosh, Khatib, & Ananzeh, 2023). But, in the Indonesian context of public firms, Minggu et al. (2023) research revealed that corporate governance disclosure was found to has a positive and insignificant impact on the firm's financial performance. This study argues the third alternative statement hypothesis (H3) stated that governance has a significant impact on financial performance.

METHODOLOGY

This research is a quantitative research using secondary data through BEI data sources (www.idx.co.id) and ESG score reports on Refinitiv. The independent variables in this study are Environmental, Social, and Governance (ESG) Performance. Financial performance as the dependent variable, Firm size, and firm age as control variables. This study use a population from manufacturing firms registered on the Indonesia Stock Exchange (IDX) period of 2018-2023. From a population of 172 firms, eleven of amount corporations were selected as the final sample. The research sampling process used the purposive sampling technique with the following observed sample criteria: 1) Manufacturing firms that consistently publish annual reports on the IDX of the observed period. 2) Manufacturing firms that disclose complete Environmental, Social, and Governance Scores by Refinitiv in 2018-2023.

The method used is the panel data regression method processed utilizing the Stata Application. Panel data is tested using several model accuracy measures, i.e., the Common Effect Model, Fixed Effect Model, and Random Effect Model. In conducting regression analysis with panel data, it is need to select several prefer from the most appropriate approach mode (Raharjo & Santosa, 2020). The regression in this study is stated in the equation below:

$$\begin{aligned}
 \text{Performance (ROA)}_{it} &= \alpha + \beta_1 \text{ENV}_{SCOit} + \beta_2 \text{SOC}_{SCOit} + \beta_3 \text{GOV}_{SCOit} + \beta_4 \text{ESGS}_{it} \\
 &+ \beta_5 \text{SIZE}_{it} + \beta_6 \text{AGE}_{it} + \varepsilon_{it}
 \end{aligned}$$

Table 1. Summary of Paired Test Theory for Determining Estimation Models

	<i>Testing Criteria</i>	Basis for Decision Making	Conclusion Test Results
Chow Test	Common Effect	If prob. cross-section < 0.05, that is H ₀ rejected or vice versa	<i>Common Effect</i>
	Fixed Effect		<i>Fixed Effect</i>
Hausman's Test	Fixed Effect	If prob. chi-squares < 0.05, that is H ₀ rejected or vice versa	<i>Random Effect</i>
	Random Effect		<i>Fixed Effect</i>
Lagrange Multiplier (LM) Test	Random Effect	If p-value <i>Breusch Pagan</i> < 0.05, that is H ₀ rejected or vice versa	<i>Common Effect</i>
	Common Effect		<i>Random Effect</i>

Hypothesis testing consists of the determinant coefficient (R²), the simultaneous test (t), and the partial test (F). The determinant coefficient (R²) is used to measure contribution from the independent variable can explain the dependent variable, whose value is between 0 and 1 (Ghozali, 2021). The simultaneous test (f) or partial test (t) is seen based on the probability score that has a significant affect if < 0.05, and if > 0.05, then it is insignificant.

RESULTS

Statistics and Data Analysis

The yields of the descriptive statistics of the sample distribution can be viewed:

Table 2. Descriptive Output

Variable	Data Obs.	Mean	Std. Dev.
ROA		.1128788	.0892493
ESGS		47.76727	20.05327
ENV		45.67985	24.15889
SOC	66	49.99212	20.58315
GOV		47.29424	19.34963
Size		24.78742	.8630612
Age		28.86364	6.702207

The Financial Performance (ROA) variable has an average or mean score of 0.1128 and a standard deviation value of 0.0892. The ESG Score variable has an average of 47.7672, the highest score is Social Performance is 49.99212, and the lowest is Environmental Performance is 45.67985. Furthermore, Firm Size and Age have a mean score of 24.78742 and 28.86364.

Panel Data Regressions

The yields of the criteria testing for determining the three estimation models are presented as follows:

Table 3. Chow and Hausman’s Test Yields

F test, that all u_i = 0, F (10,49)	Prob. (Chow)	Prob. <i>chi-Square</i>
23.47	0.0000	0.0200

The Chow test shows that the probability score < F is 0.0000 (< 0.05). So the model chosen in the study is the fixed effect model (FEM). Furthermore, the Hausman’s has a probability > chi2 is 0.0200 (< 0.05). These yields indicate that the model takes is a fixed effect model (FEM). The regression equation model generated from the data panel output is as follows:

$$ROA = 0.7187855 - \beta_1 0.0019776 ENV_{SCO} - \beta_2 0.002606 SOC_{SCO} - \beta_3 0.0022676 GOV_{SCO} + \beta_4 0.0075252 ESGS - \beta_5 0.0086244 SIZE - \beta_6 0.0146801 AGE + \epsilon$$

- a. The constant score (α) obtained is 0.7187855, which shows that for every 1 percent rise in ENV, ROA will decline by 0.0019776.
- b. The coefficient score of the Environmental variable (ENV) is -0.0019776, which shows that for every 1 percent rise in ENV, ROA will decline by 0.0019776.
- c. The coefficient score of the Social variable (SOC) is -0.002606, which shows that for every 1 percent rise in SOC, ROA will decline by 0.002606
- d. The coefficient score of the Governance variable (GOV) is -0.0022676, which shows that for every 1 percent rise in GOV, ROA will decline by 0.002676.
- e. The coefficient score of the ESG_Score (ESGS) is 0.0075252, which shows that for every 1 percent rise in ESGS, ROA will rise by 0.0075252.
- f. The coefficient score of the Size and Age of firms as control variables (SIZE; AGE) is -0.0086244 and -0.0146801, which shows that for every 1 percent rise in each of SIZE and AGE, ROA will decline by 0.002676 and 0.0146801.

Result of Hypothesis Testing

Table 4. Determination and F-Test Yields

Fixed-effect, (within) regression Group variable: id	F-stats, and Prob. (F)
R-Sq: 0.3271 (within)	
0.1118	23.47
(between)	0.0000
0.1118 (overall)	

The R2 test yields show that the overall R-squared score is 0.1118 or 11.18%. This score shows that the influence of Environmental, Social, and Governance (ESG) performance is less able to explain its implication on the Financial Performance of 11.18 percent, while 88.82 percent is influenced or explained by other variables outside this model. It is found that the F-statistic is 23.47 and probability F-statistic is 0.0000 or < 0.05, which indicates that ESG performance simultaneously has a significant affect on the financial performance.

Table 5. t-Test Yields

ROA	Coefficient	t-Score	Prob. (P > t)
ESGS	0.075252	1.57	0.123
ENV	-0.0019776	-1.12	0.270
SOC	-0.002606	-1.43	0.159
GOV	-0.0022676	-1.59	0.119
Size	-0.0086244	-0.32	0.748
Age	-0.0146801	-3.02	0.004
_Cons.	0.7187855	1.18	0.245

DISCUSSION

The yields of the statistical data analysis can be stated that the Environmental variable has an insignificant influence on the financial performance with a negative sign. So it can be inferred that H1 is not supported. Lack of utilization of environmental information by stakeholders, even though the company has participated in environmental activities. This can be seen from 172 manufacturing companies, and only 11 companies reported environmental performance until 2023, which means that other companies are not encouraged to implement their environmental practices in sustainability reports. In implementing these environmental practices, companies also need to incur large costs, while these expenses can reduce profitability and profits in the short term. For these findings, it is not revealed by previously studied as Alareeni and Hamdan (2020); Al Amosh et al. (2023), which confirm an affect of environment from performance disclosure in the context of financial performance.

The yields of the statistical data analysis can be stated that the Social variable has an insignificant influence on the financial performance with a negative sign. So it can be inferred that H2 is not supported. This happens because the company has not achieved success in social disclosure, so spending on this practice tends not to affect financial performance. While manufacturing companies have characteristics that only focus on market demand, costs, and production efficiency that financial performance has not become a driver in social factors. For these findings, it is not revealed by previously studied as Alareeni and Hamdan (2020); Al Amosh et al. (2023), which confirm an affect of social from performance disclosure in the context of financial performance. While

research is in line to revealed that social disclosure has an insignificant impact on the firm's financial performance (Minggu, Aboladaka, & Neonufa, 2023).

The yields of the statistical data analysis can be stated that the Governance variable has an insignificant influence on the financial performance with a negative sign. So it can be inferred that H3 is not supported. The lack of good governance practices is the cause because the implementation of this is more often seen in companies experiencing a crisis, whereas in normal situations companies tend to be dominant in operational factors. For these findings, it is not revealed by previously studied as Alareeni and Hamdan (2020); Al Amosh et al. (2023), which confirm an affect of governance from performance disclosure in the context of financial performance. While research is in line to revealed that corporate governance disclosure has an insignificant impact on the firm's financial performance (Minggu, Aboladaka, & Neonufa, 2023).

The yields of the statistical data analysis can be stated that the ESG factors has an insignificant influence on the financial performance with a positive sign. ESG factors have a greater impact on reputational and regulatory risks than increasing profitability. Companies that implement these practices will also require large costs and resources, causing profitability to decline in the short term. This is also proven by the weak contribution of Environmental, Social, and Governance (ESG) performance, which only explains its implication on the Financial Performance of 11.18 percent.

CONCLUSIONS AND RECOMMENDATIONS

Based on the yields of the study using the Stata data processing that has been carried out, it can be inferred with the following research results: 1) Environmental Performance (ENV) partially has a negative, insignificant affect on Financial Performance in IDX manufacturing firms for the 2018-2023 period. 2) Social Performance (SOC) partially has a negative, insignificant affect on Financial Performance in IDX manufacturing firms for the 2018-2023 period. 3) Governance Performance (GOV) partially has a negative, insignificant affect on Financial Performance in IDX manufacturing firms for the 2018-2023 period. 4) Environmental, Social and Governance (ESG) performance partially has a positive, insignificant affect on Financial Performance in IDX manufacturing firms for the 2018-2023 period.

This study only discusses the Environmental, Social, Governance, and ESG score overall. While many other variables that have an impact on financial performance are not tested in this study. This sample is very limited because there are still many companies that have not reported ESG since 2018. The scope of this study is confined to firms in the manufacturing sector, so the results are less likely to be generalized to companies listed on the IDX. Companies need to pay attention to and improve the quality of more transparent ESG reporting so that stakeholders, including investors, can understand the positive impact of ESG practices on financial performance. Investors need to consider the company's ESG practices by using ratings and indices in making their investment decisions. The government needs to strengthen regulations so that companies can be encouraged to report and disclose their ESG transparently. Further research is

expected to expand the scope of the study by using more relevant variables, expanding the population and sample to other company sectors, and conducting research on the latest period of years, after Covid-19 pandemic.

FURTHER STUDY

Future research should consider expanding the scope beyond the manufacturing sector to include other industries listed on the Indonesia Stock Exchange (IDX), thereby enhancing the generalizability of findings. Given the limited number of firms with ESG disclosures since 2018, further studies are encouraged to explore more recent periods, especially post-COVID-19, to capture shifts in ESG practices and investor behavior. Additionally, incorporating other financial and non-financial variables—such as firm size, market capitalization, R&D expenditure, or ESG transparency index—may provide a more comprehensive analysis of what drives financial performance. A comparative study between firms with and without ESG disclosures may also offer valuable insights. Lastly, applying different analytical methods such as structural equation modeling (SEM) or using alternative ESG data sources (e.g., Bloomberg, MSCI) could improve the robustness of future findings.

REFERENCES

- Al Amosh, H., Khatib, S. F., & Ananzeh, H. (2023). Environmental, social and governance impact on financial performance: evidence from the Levant countries. *Corporate Governance*, 23(3), 495-513. doi:10.1108/CG-03-2022-0105
- Alareeni, B. A., & Hamdan, A. (2020). ESG impact on performance of US S&P 500-listed firms. *Corporate Governance: The International Journal of Business in Society*, 20(7), 1409-1428. doi:10.1108/CG-06-2020-0258
- Bergman, D., Henriksson, F., & Taheri, K. (2010). *The Role of Sustainability Reports in Investment Analysis*. Sweden: Jönköping University. Retrieved from <https://www.diva-portal.org/smash/get/diva2:322337/FULLTEXT01.pdf>
- Chandra, J. A., Sapiro, R., & Muktiono. (2022). Analysis of the Role of Government in Greenwashing Practices in ESG-Based Sustainable Financial Investment Strategies (in Indonesian Version). *Jurnal Panorama Hukum*, 7(2), 138-146. doi:10.21067/jph.v7i2.7584
- Chen, L., Msigwa, G., Yang, M., Osman, A. I., Fawzy, S., Rooney, D. W., & Yap, P.-S. (2022). Strategies to achieve a carbon neutral society: a review. *Environmental Chemistry Letters*, 20(4), 2277-2310. doi:10.1007/s10311-022-01435-8
- DasGupta, R. (2022). Financial performance shortfall, ESG controversies, and ESG performance: Evidence from firms around the world. *Finance Research Letters*, 46(Part B), 102487. doi:10.1016/j.frl.2021.102487

- Fosu, E., Fosu, F., Akyina, N., & Asiedu, D. (2024, March). Do environmental CSR practices promote corporate social performance? The mediating role of green innovation and corporate image. *Cleaner and Responsible Consumption*, 12, 100155. doi:10.1016/j.clrc.2023.100155
- Freeman, R. E., & McVea, J. (2005). A Stakeholder Approach to Strategic Management. In M. A. Hitt, R. E. Freeman, & J. S. Harrison (Eds.), *The Blackwell Handbook of Strategic Management* (pp. 183-201). John Wiley & Sons, Inc. doi:10.1111/b.9780631218616.2006.00007.x
- Ghozali, I. (2021). *Aplikasi Analisis Multivariate dengan Program IBM Statistik SPSS 26 (10th Ed.)*. Semarang: Badan Penerbit Universitas Diponegoro.
- GlobeScan. (2020, October 14). Public opinion poll on social and environmental corporate performance. Retrieved March 2025, from <https://globescan.com/2020/10/14/rising-trust-sustainability-reporting/>
- Gold, N. O., & Md Taib, F. (2023). Corporate governance and extent of corporate sustainability practice: the role of investor activism. *Social Responsibility Journal*, 19(1), 184-210. doi:10.1108/SRJ-06-2021-0228
- IEA. (2022). How much CO2 does Indonesia emit? Retrieved December 2024, from <https://www.iea.org/countries/indonesia/emissions>
- Junius, D., Adisurjo, A., Rijanto, Y. A., & Adelina, Y. E. (2020). The Impact of ESG Performance to Firm Performance. *Jurnal Aplikasi Akuntansi*, 5(1), 21-41. doi:10.29303/jaa.v5i1.84
- Kasmir. (2021). *Analisis Laporan Keuangan (Cetakan 13)*. Depok: Rajawali Pers.
- Mahajan, R., Lim, W. M., Sareen, M., Kumar, S., & Kumar, R. (2023). Stakeholder Theory. *Journal of Business Research*, 166, 114104. doi:10.1016/j.jbusres.2023.114104
- Minggu, A. M., Aboladaka, J., & Neonufa, G. F. (2023). Environmental, Social dan Governance (ESG) dan Kinerja Keuangan Perusahaan Publik di Indonesia (in Indonesian Version). Owner: Riset dan Jurnal Akuntansi, 7(2), 1186-1195. doi:10.33395/owner.v7i2.1371
- Myšková, R., & Hájek, P. (2017). Comprehensive Assessment of Firm Financial Performance using Financial Ratios and Linguistic Analysis of Annual Reports. *Journal of International Studies*, 10(4), 96-108. doi:10.14254/2071-8330.2017/10-4/7
- Nasution, S.W.P. (2023). *Manajemen Keuangan Dasar (Cetakan 1)*. Yogyakarta: Deepublish.

- Nasution, S. W., Wardhani, W., Sa'diah, K., Simanjuntak, V. C., & Ekawati, Y. A. (2024). Exploring the Correlation Between Corporate Governance and Financial Performance of Listed Companies in Indonesia's Stock Market. *The Journal of Academic Science*, 1(8), 1001-1015. doi:10.59613/0kz0g282
- Ogunode, O. A. (2022). Legitimacy Theory and Environmental Accounting Reporting and Practice: A Review. *South Asian Journal of Social Studies and Economics*, 13(1), 17-28. doi:10.9734/SAJSSE/2022/v13i130345
- Rabinowitz, P. (2020). Section 8. Identifying and Analyzing Stakeholders and Their Interests. In *Encyclopedia of Business* (2nd Ed.). US: The University of Kansas.
- Raharjo, D., & Santosa, A. (2020). *STATA 14 untuk Penelitian* (Cetakan 1). Yogyakarta: Penerbit Kepel Press.
- Sadi'ah, K. (2018). The Effect of Corporate Financial Ratio upon the Company Value. *The Accounting Journal of Binaniaga*, 03(02), 75-88. doi:10.33062/ajb.v3i2.245
- Samadhi, N. (2018, November 26). 12 Years to Exceed 1.5 Degree. Retrieved December 2024, from Insights: Topic "Climate": <https://wri-indonesia.org/en/insights/12-years-exceed-15-degree>
- Sarwani, & Husain, T. (2021). The Firm's Value Empirical Models in Automotive and Components Subsectors Enterprises: Evidence from Developing Economy. *Journal of Governance and Regulation*, 10(1), 83-95. doi:10.22495/jgrv10i1art9
- Truant, E., Borlatto, E., Crocco, E., & Sahore, N. (2024). Environmental, social and governance issues in supply chains. A systematic review for strategic performance. *Journal of Cleaner Production*, 434, 140024. doi:10.1016/j.jclepro.2023.140024
- Velte, P. (2017). Does ESG performance have an impact on financial performance? Evidence from Germany. *Journal of Global Responsibility*, 8(2), 169-178. doi:10.1108/JGR-11-2016-0029
- Velte, P. (2023). Determinants and financial consequences of environmental performance and reporting: A literature review of European archival research. *Journal of Environmental Management*, 340, 117916. doi:10.1016/j.jenvman.2023.117916
- Wan Mohammad, W. M., & Wasiuzzaman, S. (2021). Environmental, Social and Governance (ESG) disclosure, competitive advantage and performance of firms in Malaysia. *Cleaner Environmental Systems*, 2, 100015. doi:10.1016/j.cesys.2021.100015

- Yang, S. (2023). Long-term Business Sustainability Through Corporate Governance. In J. Cifuentes-Faura, & C. T. Dang (Ed.), Proceedings of the 2023 International Conference on Management Research and Economic Development. 19, pp. 255-262. Oxford, UK: Cardiff Business School & King's College London. doi:10.54254/2754-1169/19/20230146