Jurnal ASET
(Akuntansi Riset)

Journal homepage: http://ejournal.upi.edu/index.php/aset/

Can ESG Save Zombie Companies During the Covid-19 Pandemic?

*Revaldo Farrel Witanto, Tan Ming Kuang**
Accounting Study Program, Faculty of Business, Universitas Kristen Maranatha, Bandung, Indonesia.

*Correspondence: E-mail: tm.kuang@eco.maranatha.edu

ABSTRACT

This study examines the relationship between Environmental, Social, and Governance (ESG) and the zombie firm phenomenon. The study employs secondary data from the data provider Revinitif Eikon, encompassing companies listed on the Indonesia Stock Exchange (IDX) between 2018 and 2021, excluding the financial sector, and employing purposive sampling techniques for data collection. The collected data was then analyzed through logistic regression using SPSS software version 26. The findings indicate that ESG harms zombie companies, which suggests that ESG can prevent companies from becoming zombies. Companies with higher levels of ESG implementation are less likely to become zombies. This suggests that companies with strong ESG practices are more resilient to economic instability, especially during the COVID-19 pandemic. This study contributes to the literature on zombie companies and ESG and supports stakeholder theory and the triple bottom line concept. This study has practical implications for company management, providing insights on how to implement ESG principles in operational practices to ensure long-term sustainability. This study introduces novelty by integrating the context of the COVID-19 pandemic to investigate the correlation between ESG and zombie firms, while also adopting the more rigorous theoretical framework proposed by Hoshi et al., (2012) in assessing zombie companies, in contrast to Ren et al., (2022).

ARTICLE INFO

Article History:
Submitted/Received 14 Jan 2024
First Revised 15 Feb 2024
Accepted 29 Apr 2024
First Available online 01 May 2024
Publication Date 01 Jun 2024

Keyword:
COVID-19,
ESG,
Zombie Companies.

1. INTRODUCTION

Economic experts from organizations like the OECD and BIS have consistently pointed out the rise of zombie companies worldwide (Fischer, 2021). This study seeks to uncover lesser-known insights about these companies, addressing their intriguing presence. This study is the first to examine how environmental, social, and governance (ESG) and zombie companies were linked during the COVID-19 pandemic. The pandemic has adversely affected health, social, and economic aspects of life, including Indonesia's economy. According to a Kemnaker (2020) survey, the COVID-19 pandemic has harmed 88 percent of Indonesian businesses.

Kane, J.E. (1987) pioneered the concept of zombie companies by classifying a company as a "zombie" when it exhibits low efficiency and profitability. Zombie companies are enterprises that have consistently poor performance, typically from pre-crisis to crisis periods (Hoshi et al., 2012), They grapple in competitive markets and are supported by government aid or bank loans. The pandemic has heightened the risk of companies turning into zombies. CNN Indonesia (2019) revealed that approximately 25% of Indonesia Stock Exchange companies are already categorized as zombies even in good times.

To overcome financial distress (Li et al., 2021; Sarumpaet et al., 2020) and thrive in today's competitive market (Nengzih, 2022; Selpiyanti and Fakhroni, 2020; Teng et al., 2021), companies are increasingly embracing ESG principles. This aligns with stakeholder theory, emphasizing the responsibility to meet the long-term needs of various stakeholders (Freeman et al., 2010). Moreover, ESG resonates with the Triple Bottom Line (TBL) concept by Elkington (1994), advocating for sustainable development through balancing profit, people, and planet considerations. Supporting this, studies by Chin (2022) and Putri and Puspawati (2023) demonstrate a positive relationship between ESG and company performance. Importantly, Ren et al., (2022) argue that embracing ESG can even prevent companies from becoming "zombies" in terms of financial stagnation.

Studies on ESG have been extensively conducted, including their influence on earnings management (Adeneye and Kammoun, 2022), stock returns (Qodary and Tambun, 2021), profitability (Aydoğmuş et al., 2022), financial distress (Harymawan et al., 2021; Prihati et al., 2022; Rahmah and Novianty, 2021), firm value (El Ghoul et al., 2017; Putri and Puspawati, 2023), and performance (Safriani and Utomo, 2020; Widya Mitra and Pria Anas, 2021; Trisnowati et al., 2022). However, the link between ESG and zombie companies remains constrained. Limited research has examined the impact of ESG on zombie companies during the COVID-19 pandemic, except for Ren et al., (2022) study on companies in China during stable economic conditions (2011-2019). Motivated by the COVID-19 pandemic's unprecedented disruption, this study delves into the effectiveness of ESG practices on zombie companies compared to stable economic times. Leveraging the pandemic as a natural experiment, we offer a more nuanced perspective on their resilience. Unlike Ren et al., (2022), whose measure solely focused on profitability, we adopt a more comprehensive approach, incorporating profitability and credit subsidies as per Hoshi et al., (2012) theory.

This study explores the impact of ESG on a company's vulnerability to becoming a zombie. It contributes to the literature on ESG and zombie companies, aligning with stakeholder theory and the triple bottom line concept. This research also makes an important contribution to the field of accounting as it can enhance accountants' understanding of the role of ESG in the risk of a company becoming a zombie. This knowledge is useful for accountants when performing their duties as auditors or business consultants.

DOI: https://doi.org/10.17509/jaset.v16i1
p- ISSN 2086-2563 e- ISSN 2541-0342

2. METHODS

This study employed a quantitative approach, analyzing data with quantitative or analytical features to assess the hypotheses proposed (Sugiyono, 2010). Focusing on companies listed on the Indonesia Stock Exchange between 2018 and 2021, the research leverages secondary data accessed through the financial information platform Refinitiv Eikon. This platform offers real-time market data, news, and analytics, providing a rich source for quantitative analysis. The dataset also used economic and financial annual reports from each company as a supplement. To select the relevant companies, the researcher used purposeful sampling guided by predefined criteria.

To assess the impact of ESG on a company's risk of becoming a "zombie," this study employed logistic regression analysis in SPSS Version 26. While both logistic and multiple regression analyze relationships between variables, the nature of the dependent variable is a key distinction. Logistic regression is designed specifically for categorical dependent variables making it suitable for assessing binary outcomes such as "zombie" or "not-zombie." The regression model used in this study is as follows.

$$ZOMi,t = \alpha + \beta1ESG_{i,t-1} + \beta2SIZE_{i,t-1} + \beta3TAN_{i,t-1} + \beta4AGE_{i,t-1} + €_{i,t}$$

Source: Ren et al., (2022)

The dependent variable, a dummy variable, is whether a company is a zombie company. This variable is measured using the Financial Expenditures to Sales Ratio (FES) and Bank Help (BH) measurements. The FES measurement reflects companies with high debt levels and poor performance. On the other hand, the BH measurement indicates the level of assistance provided by creditors (banks) to a company (Hoshi et al., 2012). The calculation methods for FES and BH are as follows:

$$FES = \frac{Financial\ Expenditures}{Total\ Sales}$$

Notes:
FES = Financial expenditure to sales ratio
Financial Expenditure = Interest Costs and additional financial expenditures
Total Sales = Sales in a year

$$BH = \frac{TLt-(TLt-1)}{(SLt-1)+CLLt}$$

Notes:
BH = Bank Help
TL = Total bank debt
SL = Short-term bank debt
CLL = The portion of long-term bank debt that matures within a year

Source: (Madyan et al., 2020)

The proposed measurement identifies companies potentially classified as "zombies." Specifically, a company receives a score of 1 if both conditions apply: its Financial Expenditures

DOI: https://doi.org/10.17509/jaset.v16i1
p- ISSN 2086-2563 e- ISSN 2541-0342

to Sales Ratio (FES) exceeds 5% and its Bank Help (BH) is above -10%. Otherwise, a score of 0 is set (Madyan et al., 2020).

The independent variable, ESG, is measured using scores that reflect a company's level of environmental, social, and governance factors (Ren et al., 2022).

Three control variables are also included in the study: company size (SIZE), tangibility (TAN), and company age (AGE). The computation of the three control variables is as follows:

$$\text{SIZE} = Ln\ (Total\ Assets)$$

$$\text{TAN} = \frac{Total\ fixed\ assets}{Total\ Assets}$$

$$\text{AGE} = Founding\ year - Observation\ year$$

Source: (Novita et al., 2019)

3. RESULTS AND DISCUSSION

3.1. Description of research object

Table 1 describes a sample size of twenty-four companies selected from the initial 680 non-financial companies. This study eliminated the samples based on the following criteria: 188 companies disclosed their financial statements in currencies other than Indonesian Rupiah, and 468 companies did not disclose ESG scores continuously from 2018 to 2021. As a result, the total number of observed samples reached 96 (24 companies x 4 periods).

Table 1. Research object

No.	Sample Criteria	**Amount**
1	Non-financial companies registered on the IDX from 2018 - 2021,	680
2	Non-financial companies that disclose financial reports in currencies other than rupiah,	(188)
3	Non-financial companies that do not disclose ESG scores for four consecutive years, from 2018 - 2021	(468)
	Total	24

Source: Indonesia Stock Exchange (2023)

3.2. Descriptive statistical test results

The present study characterizes the properties of the research variables through descriptive statistics. The study also uses methods to gauge central tendency. The variability of each variable in this study is measured using the minimum, maximum, mean, and standard deviation.

DOI: https://doi.org/10.17509/jaset.v16i1
p- ISSN 2086-2563 e- ISSN 2541-0342

Table 2 shows the outcomes of descriptive statistical analyses for the variables. The variable of zombie companies (ZOM) exhibits a proportion of 0.17 or 17% of the total 96 observed samples. This result indicates that the number of companies classified as zombies is relatively tiny compared to healthy companies. The ESG, SIZE, TAN, and AGE variables exhibit higher means than their respective standard deviations. This result suggests that the data has a relatively small dispersion, indicating overall good data quality. It is worth noting that higher standard deviation values imply data deviations leading to biased data distribution.

Table 2. Descriptive statistics

No.	N	Min.	Max.	Mean	Std. deviation
ZOM	96	0	1	0.17	0.375
ESG	96	19.86	80.70	50.2625	16.49917
SIZE	96	12.24	32.45	19.9744	4.84218
TAN	96	0.17	0.90	0.6055	0.18088
AGE	96	19.00	108.00	51.0729	21.87055
Valid N (Listwise)	96				

Notes:
Zom: Zombie Company
ESG: Environmental. Society, Governance
Size: Company size
Tan: Company tangibility
Age: Company age
Source: Results of research data processing (2023)

3.3. Omnibus test

An omnibus test is a statistical technique used in logistic regression analysis to evaluate the overall relevance of the model. The omnibus test determines if a regression model that considers one or more independent variables improves statistically on a baseline model's ability to predict the dependent binary outcome variable. The omnibus test of model coefficients serves as the basis for the study, with the decision rule stating that if the significance level is ≤ 0.05, the regression model is deemed suitable. In contrast, a regression model is considered unsuitable for use if the significance level is greater than 0.05.

Table 3 reveals a highly significant Chi-square value (p = 0.001). This suggests that all independent and control variables employed in this study exert a statistically significant influence on the dependent variable. As a result, the regression model fits the data convincingly and is considered suitable for further application.

DOI: https://doi.org/10.17509/jaset.v16i1
p- ISSN 2086-2563 e- ISSN 2541-0342

Table 3. Omnibus test of model coefficients

		Chi-square	df	Sig.
Step 1	Step	19.947	4	0.001
	Block	19.947	4	0.001
	Model	19.947	4	0.001

Source: Results of research data processing (2023)

3.4. Hosmer and Lemeshow's goodness of fit test

Hosmer and Lemeshow's Goodness of Fit Test is employed in logistic regression analysis to evaluate the suitability of a fitted logistic regression model. This test measures how well the model's predicted probability matches the results observed in the data. The decision rule for this test is that if the significance level is < 0.05, the model is deemed unfit or inappropriate. Conversely, if the significance level is > 0.05, the model is considered appropriate or suitable.

Table 4 shows the result of this test, indicating a Chi-square value of 12.370 with a significance level of 0.135. This result satisfies the criterion of having a significant level higher than 0.05, thus showing that the model is deemed appropriate or fit.

Table 4. Hosmer and Lemeshow's goodness of fit test

	Chi-square	df	Sig.
1	12.370	0.8	0.135

Source: Results of research data processing (2023)

3.5. Overall model fit test

The Overall Model Fit Test is a statistical procedure for evaluating the effectiveness and sufficiency of a fitted logistic regression model. The model, which includes one or more independent variables, is tested to see how well it matches the data. This study evaluates the overall test using the -2 Log-likelihood. The focus lies on the -2 Log likelihood value in the beginning block, also known as block 0, and the -2 Log likelihood value in block 1. If there is a drain in the -2 Log likelihood value from block 0 to block 1, the model matches the existing data. Hence, it is possible to conclude that the model is acceptable. This result indicates that the regression model is deemed satisfactory.

Table 5 displays a reduction in the -2 Log likelihood value from block 0 to block 1. This value shows that the regression model performs well and is appropriate, given how well it fits the data.

DOI: https://doi.org/10.17509/jaset.v16i1
p- ISSN 2086-2563 e- ISSN 2541-0342

Table 5. Overall model fit

Block 0: Beginning Block							
		Iteration History[a,b,c]					
Iteration		-2 Log likelihood	Coefficients Constant				
Step 0	1	87.587	-1.333				
	2	86.514	-1.587				
	3	86.508	-1.609				
	4	86.508	-1.609				
Block 1: Method = Enter		Iteration History[a,b,c,d]					
Iteration		-2 Log Likelihood	Coefficients				
			Constant	ESG	SIZE	TAN	AGE
Step 1	1	75.885	-4.154	-0.018	0.084	2.877	0.006
	2	68.486	-6.726	-0.034	0.142	5.667	0.006
	3	66.729	-8.315	-0.045	0.180	7.654	0.002
	4	66.563	-8.893	-0.049	0.195	8.388	0.000
	5	66.561	-8.961	-0.050	0.197	8.474	-0.001
	6	66.561	-8.962	-0.050	0.197	8.475	-0.001
	7	66.561	-8.962	-0.050	0.197	8.475	-0.001

Notes:
ESG: Environmental. Society, Governance
Size: Company size
Tan: Company tangibility
Age: Company age
Source: Results of research data processing (2023)

3.6. Logistic regression analysis

Logistic regression analysis examines the connection between one or more independent variables (predictors) and a binary or categorical dependent variable (outcome). This approach is beneficial when the result variable denotes a binary event, such as success or failure, yes or no, or presence or absence.

Entering the values from **Table 6** into the previous logistic regression equation yields the following results:

$$ZOM_{i,t} = -8.962 + -0.050ESGi_{,t-1} + 0.0197SIZE_{i,t-1} + 8.475TAN_{i,t-1} + -0.001AGE_{i,t-1}$$

The constant value of -8.962 indicates that when the values of ESG, SIZE, TAN, and AGE are all 0, the log of odds for the dependent variable equals -8.96. Additionally, each increase in the ESG

DOI: https://doi.org/10.17509/jaset.v16i1
p- ISSN 2086-2563 e- ISSN 2541-0342

value will increment the log of odds by the coefficient presented for each independent variable, assuming that the other independent variables remain constant.

Table 6. Variables in the equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1	ESG	-0.050	0.025	4.060	1	0.044	0.951
	SIZE	0.197	0.071	7.688	1	0.006	1.218
	TAN	8.475	2.938	8.323	1	0.004	4793
	AGE	-0.001	0.026	0.001	1	0.979	0.999
	Constant	-8.962	2.930	9.354	1	0.002	0.000

Notes:
ESG: Environmental. Society, Governance
Size: Company size
Tan: Company tangibility
Age: Company age
Source: Results of research data processing (2023)

The research findings encompass the following variables: Environmental, Social, and Governance (ESG) have a coefficient value (B) of -0.050 with a significance probability (Sig.) of 0.044, showing that the ESG has a significant negative influence on the zombie company (ZOM). The company size (SIZE) has a coefficient value (B) of 0.197 with a significance probability (Sig.) of 0.006, signifying a significant positive influence on the zombie company (ZOM). The tangibility (TAN) has a coefficient value (B) of 8.475 with a significance probability (Sig.) of 0.004, indicating a significant positive influence on the zombie company (ZOM). Lastly, the company age (AGE) has a coefficient value (B) of -0.001 with a significance probability (Sig.) of 0.979, implying that the company age (AGE) does not have a significant influence on the zombie company (ZOM).

3.7. Nagelkerke R square coefficient test

The present study conducts the coefficient test using the Nagelkerke R Square coefficient, a modified combination of the Snell and Cox R Square coefficients. The Nagelkerke R Square coefficient is a modified version of the Cox and Snell R-square that adjusts the statistic's scale to cover the entire range from 0 to 1. The coefficient evaluates the goodness of fit of a logistic regression model.

Table 7 presents the Nagelkerke R Square value as 0.316. To put it another way, the effect of the independent variables on the dependent variable is 0.316, or 31.6 per cent, and the variables not included in this study have an impact on the remaining part.

Table 7. Model summary

Step	-2 Log likelihood	Cox and Snell R Square	Nagelkerke R Square
1	66.561[a]	0.188	0.316

Source: Results of research data processing (2023)

DOI: https://doi.org/10.17509/jaset.v16i1
p- ISSN 2086-2563 e- ISSN 2541-0342

3.8. Discussion

Table 6 indicates that the ESG variable has a significant effect on zombie companies with a negative relationship (B = -0.050, p = 0.044). The finding implies that as companies adopt ESG practices, the potential for a company to enter a zombie state decreases.

These findings support the concept of ESG in line with stakeholder theory, which states that an entity cannot sustain itself by prioritizing profit alone but should include benefits for groups directly impacted by the entity (Freeman et al., 2010). In this context, companies have stakeholders who support their existence. Stakeholders have the right to access company information, and the company expects that this information will reflect a positive image of itself. Based on the findings of this study, ESG can be considered as one of the strategies to satisfy stakeholders."

ESG aligns with the Triple Bottom Line (TBL) concept (Elkington, 1994), which focuses on the three pillars: Profit, People, and Planet. Consistent with stakeholder theory, companies should consider other dimensions, such as caring for people and the environment, in addition to profit. The principles of the Triple Bottom Line support both corporate sustainability and social and environmental sustainability. The elements of corporate sustainability that can support the Triple Bottom Line concept include governance, leadership, business planning, measurement and reporting, organizational learning, corporate culture, and information systems (Smith and Sharicz, 2011).

This study addresses the main research question: "Can ESG save zombie companies during the COVID-19 pandemic?" The study empirically proves that companies implementing ESG principles in their practices reduce the risk of being categorized as zombies or hinder the potential for poor performance and high debt to creditors. This study supports the research conducted by Chin (2022) and Putri and Puspawati (2023), which state that ESG significantly influences company performance. Furthermore, this study aligns with the research by Ren et al., (2022), which implies that the application of ESG can prevent a company from turning into a zombie.

The limitations of this study arise from several factors. Firstly, the sample size is relatively small, consisting of only 96 observational units. The majority of companies in Indonesia do not report ESG or have only recently begun reporting it in the last few years, so they did not meet the research criteria. Consequently, the findings of this study may have limited generalizability. Next, using secondary data from Refinitiv Eikon introduces the possibility of inaccuracies and incompleteness in the data. Furthermore, applying purposive sampling, based on specific considerations, may introduce bias into the study. Additionally, logistic regression analysis, employed as the analytical method, is susceptible to data outliers and errors. These limitations should be acknowledged and addressed in the study. Finally, a lack of variability in the research variables constrains the research. This limitation may impact the depth and breadth of the study's findings.

Based on these limitations, the present study recommends that future researchers address these issues by increasing the sample size, expanding the research period, and employing appropriate data collection techniques. Additionally, this study advises further development studies on this topic by selecting additional variables relevant to the relationship with zombie companies, considering the limited implementation of ESG in the work practices of Indonesian companies. The researcher recommends diversification and environmental uncertainty as potential variables that could serve as moderators or mediators. Ultimately, these recommendations aim to facilitate a more comprehensive understanding of zombie companies, particularly in Indonesia.

DOI: https://doi.org/10.17509/jaset.v16i1
p- ISSN 2086-2563 e- ISSN 2541-0342

This study makes a significant contribution to the literature on zombie companies, stakeholder theory, and the triple bottom line concept. Additionally, this study provides practical implications for company management in adopting ESG practices to enhance company performance and ensure the company's resilience in both stable and crisis conditions.

4. CONCLUSION

This study provides the first evidence that ESG can hinder the potential of a company entering a zombie state during the COVID-19 pandemic. The topic of zombie companies has gained interest, and our research tries to learn more about them than previously known, especially in Indonesia. Ren et al., (2022) is the only study that has researched the role of ESG in zombie companies, which examined it during a period of stable economic conditions in China. This study selected the COVID-19 pandemic as a force in the research to determine whether the implementation of ESG by companies can rescue them, even in times of distress. The research finding was that ESG inhibits the potential for companies to become zombies with a percentage of 31.6 percent, which aligns with the findings of Ren et al., (2022).

This study is consistent with stakeholder theory, which supports companies in maintaining positive relationships with stakeholders, adopting ESG practices in the workplace instills confidence among stakeholders. The implementation of ESG also aligns with the idea of the triple bottom line, which emphasizes that companies should focus not only on profit but also on the well-being of people and the planet This study offers a solution for companies to maintain business continuity by focusing on ESG-based work practices. Implementing ESG practices represents a significant investment for companies, as we cannot foresee what will transpire in the future.

5. REFERENCES

Adeneye, Y., and Kammoun, I. (2022). Real earnings management and capital structure: Does environmental, social and governance (ESG) performance matter? *Cogent Business and Management*, *9*(1), 1–22.

Aydoğmuş, M., Gülay, G., and Ergun, K. (2022). Impact of ESG performance on firm value and profitability. In *Borsa Istanbul Review*, 22, S119–S127).

Biro Humas, K. (2020, November 24). *Survei Kemnaker : 88 Persen Perusahaan Terdampak Pandemi Covid-19*. KEMNAKER. Retrieved from https://kemnaker.go.id/news/detail/survei-kemnaker-88-persen-perusahaan-terdampak-pandemi-covid-19

Chin, P. N. (2022). ESG rating and firm performance: Comparison among Singapore, Malaysia, Brunei, Indonesia and Thailand. *International Journal of Accounting, Finance and Business (IJAFB)*, *7*(43), 155–164.

CNN Indonesia. (2019, August 12). *Rizal Ramli: 24 Perusahaan "Zombie" di BEI Picu Krisis 2020*. CNN Indonesia. Retrieved from https://www.cnnindonesia.com/ekonomi/20190812151706-532-420571/rizal-ramli-24-perusahaan-zombie-di-bei-picu-krisis-2020

Detik News. (2022, November 17). *Inilah Isi Lengkap Deklarasi KTT G20 Bali, Ada Poin Alot Soal Ukraina*. Retrieved from https://news.detik.com/berita/d-6411054/ini-isi-lengkap-deklarasi-ktt-g20-bali-ada-poin-alot-soal-ukraina

DOI: https://doi.org/10.17509/jaset.v16i1
p- ISSN 2086-2563 e- ISSN 2541-0342

El Ghoul, S., Guedhami, O., and Kim, Y. (2017). Country-level institutions, firm value, and the role of corporate social responsibility initiatives. *Journal of International Business Studies*, *48*(3), 360–385.

Elkington, J. (1994). *Cannibals with Forks*.

Fischer, F. B. (2021). Zombie firms, corporate restructuring and relationship canking: Credit guidance as a key to tackle zombie lending? In *Accounting, Economics and Law: A Convivium*. De Gruyter Open Ltd.

Freeman, R. E., Parmar, B. L., Harrison, J. S., Wicks, A. C., Purnell, L., and De Colle, S. (2010). Stakeholder theory: The state of the art. *Academy of Management Annals, 4*(1), 403-445.

Harymawan, I., Putra, F. K. G., Fianto, B. A., and Wan Ismail, W. A. (2021). Financially distressed firms: Environmental, social, and governance reporting in Indonesia. *Sustainability (Switzerland)*, *13*(18).

Hoshi, T., Diego, S., & Kim, Y. (2012). *Macroprudential Policy and Zombie Lending in Korea*.

Kane, E. J. (1987). Dangers of capital forbearance: The case of the FSLIC and "Zombie" SandLs. *Contemp. Econ. Policy*, *5*(1), 77–83.

Li, T. T., Wang, K., Sueyoshi, T., and Wang, D. D. (2021). Esg: Research progress and future prospects. In *Sustainability (Switzerland), 13*(21).

Nengzih, N. (2022). Carbon Emissions Intensity and Environmental Cost Effect on Corporate Financial Performance. *Jurnal ASET (Akuntansi Riset)*, *14*(2), 245–254.

Madyan, M., Sasikirono, N., and Maulidya, P. (2020). Zombie company and CSR performance zombie company and CSR performance with corporate governance and ownership with corporate governance and ownership as moderator variables. *Riset Akuntansi Dan Keuangan Indonesia*, *5*(3), 249–261.

Novita, S., Tjahjadi and Irwanto. (2019). Zombie Dan Diversifikasi Dalam Masa Krisis Keuangan Global. *Jurnal Reviu Akuntansi dan Keuangan, 9*(3), 295-308.

Prihati, A., Tidar, U., Nibras, M., and Khabibah, A. (2022). Studi literatur: Pengaruh mekanisme Good Corporate Governance terhadap Financial Distress (Study literature: The effect of Good Corporate Governance mechanism on Financial Distress). *Jurnal Akuntansi Universitas Jember*, *20*(2), 125–135.

Putri, C. M., and Puspawati, D. (2023). The effect of ESG disclosure, company size, and leverage on company's financial performance in Indonesia. *The International Journal of Business Management and Technology*, *7*(2), 252–262.

Qodary, H. F., and Tambun, S. (2021). Pengaruh Environmental, Social, Governance (ESG) dan retention ratio terhadap return saham dengan nilai perusahaan sebagai variabel moderating. *Juremi: Jurnal Riset Ekonomi*, *1*(2), 159–171.

Rahmah, I., and Novianty, I. (2021). Comparative analysis of financial distress before and during the COVID-19 Pandemic: Empirical evidence in Indonesia. *International Journal of Business, Economics and Law*, *24*(5), 216–222.

Ren, G., Li, J., Zhao, M., Liu, L., Zheng, M., and Jing, M. (2022). Can esg boost zombie firms back to normal: Evidence from Chinese firms. *Research Square*.

DOI: https://doi.org/10.17509/jaset.v16i1
p- ISSN 2086-2563 e- ISSN 2541-0342

Safriani, M. N., and Utomo, D. C. (2020). Pengaruh Environmental, Social, Governance (ESG) Disclosure terhadap kinerja perusahaan. *Diponegoro Journal of Accounting*, *9*(3), 1–11.

Sarumpaet, S., Dewi, F. G., Agustina, Y., and Amelia, Y. (2020). Studi eksperimen tentang pengaruh kinerja lingkungan dan sosial terhadap penilaian kredit perbankan. *Jurnal ASET (Akuntansi Riset)*, *12*(2), 384–403.

Selpiyanti, and Fakhroni, Z. (2020). Pengaruh implementasi green accounting dan material flow cost accounting terhadap sustainable development. *Jurnal ASET (Akuntansi Riset)*, *12*(1), 109–116.

Smith, P.A.C and Sharicz, C (2011). The shift needed for sustainability. *The Learning Organization, 18*(1), 73-86.

Sugiyono. (2010). Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D. Alfabeta.

Teng, X., Wang, Y., Wang, A., Chang, B. G., and Wu, K. S. (2021). Environmental, social, governance risk and corporate sustainable growth nexus: Quantile regression approach. *International Journal of Environmental Research and Public Health*, *18*(20).

Trisnowati, Y., Achsani, N. A., Sembel, R., and Andati, T. (2022). The Effect of ESG score, financial performance, and macroeconomics on stock returns during the pandemic era in Indonesia. *International Journal of Energy Economics and Policy*, *12*(4), 166–172.

Widya Mitra, A., and Pria Anas, E. (2021). Impact of ESG/Corporate Social Responsibility on Company Performance before and during Covid 19 Crisis: Study of listed companies in Indonesia. *International Journal of Business and Technology Management*, *3*(2), 143–155.

DOI: https://doi.org/10.17509/jaset.v16i1
p- ISSN 2086-2563 e- ISSN 2541-0342