

The Effect of ESG Score and Foreign Ownership on Financial Reporting Delay, with Financial Distress Measured Using the Merton Model as a Mediating Variable: A Study of Manufacturing Companies on the IDX from 2020 to 2024

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Abstract

This study aims to examine the effect of ESG score and foreign ownership on financial reporting delay with financial distress as a mediation variable in manufacturing companies listed on the Indonesia Stock Exchange for the 2020–2024 period. The population comprises all manufacturing companies listed on the IDX. Purposive sampling method resulted in 23 companies with 115 annual observations. Data analysis employed panel data regression using the Two-Stage Least Squares (TSLS) method to address endogeneity issues. Model selection was conducted through the Chow Test, Hausman Test, and Lagrange Multiplier Test. The results indicate that Equation 1 uses the Common Effect Model (CEM), while Equations 2 and 3 use the Fixed Effect Model (FEM). The findings reveal that ESG score has no significant effect on financial distress ($p = 0.293 > 0.05$) nor on financial reporting delay ($p = 0.747 > 0.05$). Foreign ownership has no significant effect on financial distress ($p = 0.280 > 0.05$). Financial distress has no significant effect on financial reporting delay ($p = 0.348 > 0.05$). Furthermore, financial distress does not mediate the effect of ESG score nor foreign ownership on financial reporting delay. Consequently, all five hypotheses are rejected. The implication is that ESG has not yet become a sufficiently strong factor in influencing corporate financial health in Indonesia. The novelty of this study lies in the use of the Merton Model to measure financial distress and the TSLS method to address endogeneity in the mediation model within the context of Indonesian manufacturing companies.

INTRODUCTION

The manufacturing sector is often referred to as the engine of Indonesia's economy. Its contribution is not only as a contributor to GDP, but also as a job creator and supplier of essential products for various derivative industries. Unfortunately, this engine has recently shown signs of fatigue (Sonny, 2025).

The latest evidence comes from a CNBC Indonesia report on the Indonesian Manufacturing Purchasing Managers' Index (PMI) (Rev, 2024). PMI below 50 indicates that the manufacturing sector is contracting. Worryingly, Indonesia's position in August 2024 turned out to be the worst among ASEAN countries, with PMI continuing to decline for five consecutive months. The S&P Global report highlights the main cause, namely a sharp weakening of domestic and foreign market demand, which ultimately has an impact on slow production and even triggers layoffs in some production lines.

Macroeconomic phenomena such as energy price fluctuations, weakening of the Rupiah exchange rate, and global demand pressures are not only visible in aggregate data (Ebrahim et al., 2014; Razi et al., 2025). The impact was immediately felt on the production floor of manufacturing companies. Inflated operating costs, at a time when purchasing power and demand are eroded, systematically suppress profitability. This condition is clearly reflected in the financial performance of five manufacturing issuers on the Indonesia Stock Exchange. Here are their net profit (loss) trends in the 2020–2024 period:

PT. Chandra Asri Petrochemical Tbk (TPIA) recorded two consecutive years of profit in 2020 and 2021, but then entered the loss zone starting in 2022. Losses had shrunk drastically from IDR 2.35 trillion (2022) to IDR 486 billion (2023), but widened again to IDR 926 billion in 2024. This pattern indicates that the company's recovery is still fragile to market shocks.

PT. Semen Indonesia Tbk (SMGR) showed relatively stable performance in 2020–2023 with profits in the range of IDR 2–2.6 trillion. However, in 2024 there was a significant reversal: profit fell sharply to only IDR 771 billion, or a drop of more than 69 percent compared to the previous year. This is a serious signal for the property and infrastructure sectors.

PT. Indah Kiat Pulp & Paper Tbk (INKP) had increased its profit from IDR 4.1 trillion (2020) to IDR 13.4 trillion (2022), the peak of performance for five years. Unfortunately, profit then corrected by more than half in 2023 to IDR 6.3 trillion, and only slightly increased in 2024 to IDR 6.8 trillion. This means that the company has still not returned to its peak level.

The two cigarette issuers show an almost opposite pattern. PT. HM Sampoerna Tbk (HMSP) saw its profit tend to decline from 2020 to 2022, rising in 2023, but falling again in 2024. Meanwhile, PT. Gudang Garam Tbk (GGRM) has actually experienced a resurgence: after its profit fell to a low of IDR 2.7 trillion in 2022, the company managed to increase its profit to IDR 9.8 trillion in 2024, making it the only issuer in the sample to record sustainable profit growth in the last two years.

Overall, the 2020–2024 period shows that external pressures have had an uneven impact. Some have declined consistently (TPIA), some have fallen sharply (SMGR), some have stagnated (INKP and HMSP), and some have actually risen (GGRM). However, the most concerning trend is the deteriorating profitability in 2024 for most companies, which could be an early indicator of increased risk of financial distress in the manufacturing sector.

The financial pressures experienced by manufacturing companies in recent years show that financial distress is not merely an incidental event, but reflects the sector's structural vulnerability to changing economic conditions. A number of studies show that the proportion of manufacturing companies in financial distress is relatively large, even when the sector's aggregate performance is still recording growth. This indicates that macro indicators that appear stable do not always reflect the financial health of individual companies, so the risk of financial distress is often hidden behind sectoral growth (Felicia and Ulpah, 2022).

In this context, financial distress is an increasingly important issue to be studied in greater depth, not only as an indicator of financial difficulties, but also as a condition that has the potential to affect corporate governance and transparency. Financial pressure can limit management's capacity to manage internal processes, including in the preparation and submission of financial statements. Therefore, the quality and timeliness of financial reporting is one of the relevant consequences to be considered in financial distress conditions.

Depressed financial conditions can eventually spread to various aspects of a company, including delays in submitting annual financial reports (financial reporting delay). Companies that experience financial distress tend to take longer to complete the reporting process, both due to the complexity of audits and management's prudence in delivering financial information. However, the relationship between financial distress and financial reporting delays has not shown consistent results in previous studies. Nurquran and Ardianto (2023) found that higher levels of financial distress increase the likelihood of reporting delays. In contrast, Sihombing and Hing (2021) found that financial distress does not always have a significant effect on audit delays, adding that the influence is highly dependent on company characteristics and managerial behaviour. Scott (2021) and Lukason and Camacho-Miñano (2021) similarly noted the inconsistency of these findings, showing that the relationship between financial distress and financial reporting delays is still open to further study, especially in the manufacturing sector which is facing economic pressure.

The inconsistency of research results regarding financial distress and its implications for financial reporting delays is not only influenced by differences in industry context or research period, but also has the potential to stem from different approaches in measuring financial distress itself. Most previous studies still rely on accounting financial ratio-based prediction models that are retrospective and less sensitive to market dynamics, so they have limitations in detecting financial risks early, especially in periods of economic uncertainty.

Alternatively, the Merton Model (1974) offers a market-based approach through the concept of distance to default that takes into account stock price volatility and the capital structure of a company. This approach is forward-looking because it reflects market expectations of a company's ability to meet its financial obligations in the future. A number of previous studies, such as Kang et al. (2022) and Dinh et al. (2021), have shown that the Merton Model has a higher level of accuracy as an early warning system in predicting bankruptcy risk than the accounting ratio-based model.

In the Indonesian context, the relevance of the Merton Model has also been empirically proven. Winoto and Hill (2024) compared several financial distress prediction models based on financial ratios with the Merton Model using data from Indonesian companies and found that the Merton Model has better predictive power in identifying default risks. Based on these findings, this study uses the Merton Model as a financial distress measurement tool to obtain a more accurate picture of the company's financial risks and in accordance with the characteristics of the Indonesian capital market.

With the measurement of financial distress that is more sensitive to market conditions, this study does not only focus on the direct impact of ESG score and foreign ownership on financial reporting delays. ESG scores and foreign ownership are seen as having a direct influence on the timeliness of reporting through governance mechanisms, supervisory pressures, and signals captured by the market. However, under certain conditions, these influences can also work through changes in the company's financial condition. Therefore, financial distress is placed as a partial mediating variable in explaining the relationship between ESG score and foreign ownership on financial reporting delays.

In conditions of increasing financial pressure, attention to non-financial factors has become increasingly relevant, especially mechanisms that can affect the resilience of companies amid limited resources. In this context, Environmental, Social, and Governance

(ESG) is seen as an important indicator to assess the quality of a company's management and sustainability. A number of studies show that companies with better ESG disclosures tend to have more stable financial performance, lower risk, and easier access to financing. However, the effectiveness of ESG implementation is still debated, especially in the manufacturing sector which is capital-intensive and has high environmental risks. In practice, a high ESG score does not necessarily reflect optimal risk management, as ESG implementation can be symbolic or purely compliance-oriented. This mismatch between ESG commitments and operational realities gives rise to the ESG paradox, where companies with relatively good ESG scores still have the potential to face financial pressure due to environmental conflicts, compliance costs, and reputational risks (Nanda and Yandari, 2025; Nurachman and Soeratin, 2025).

In Indonesia's manufacturing sector, ESG has shifted from merely a normative commitment to a factor that has the potential to determine business continuity. The reality on the ground shows that failure to manage environmental and social aspects can lead to serious operational disruptions. A number of factories in the Java region, such as in Pati and Temanggung, were forced to stop operations due to environmental pollution and licensing issues, while conflicts between the community and PT. New Ramon Star in Pati show how environmental issues can develop into significant legal and reputational pressure. A similar case also occurred in Mojokerto, when PT. Pakerin faced administrative sanctions and criminal threats due to B3 waste pollution, which has direct implications for costs, legal risks, and the company's operational sustainability. This phenomenon confirms that although environmental performance does not always have a direct impact on increasing company value, failure in ESG implementation has the potential to trigger or exacerbate financial distress (Dian Ursula Aji, 2024; São Paulo and São Paulo, 2021; Laras Bela Utami et al., 2025).

In line with the pressure on governance and sustainability, ESG reporting practices in Indonesia also still face challenges in terms of standardisation and compliance. The Otoritas Jasa Keuangan (OJK) through OJK Regulation Number 51/POJK.03/2017 expressly requires financial service institutions, issuers, and public companies to implement sustainable finance and prepare sustainability reports. The Indonesia Stock Exchange (Bursa Efek Indonesia, IDX) targets ESG reporting to be fully implemented by 2025, with data as of December 2024 showing that 94% of listed companies (882 companies) have submitted sustainability reports (Darwati, 2025; Puspadini, 2025).

However, despite the regulations in place and the relatively high level of compliance, ESG reporting practices in Indonesia still face challenges. A study by EY Indonesia revealed that sustainability reporting practices in Indonesia are still in their infancy, with considerable gaps between sectors and varying levels of readiness (Linda, 2025). In addition, the disclosure of specific aspects such as greenhouse gas emissions is still voluntary and has not been comprehensively carried out by most public companies. In other words, although regulations have mandated reporting, ESG has not yet fully become a key standard integrated into business practices and investment decision-making in Indonesia. The incompleteness of ESG data in many companies, especially in the early years of this study period, is empirical evidence of this condition.

In the context of financial reporting, companies that show high commitment to ESG tend to have better governance and reporting systems, so they have the potential to deliver financial reports in a more timely manner. On the other hand, manufacturing companies that face

financial pressure and have not adequately integrated ESG may experience limitations in internal reporting systems and reputational risks that can trigger financial reporting delays.

In Indonesia's manufacturing sector, which is under economic pressure, ESG can no longer be understood solely as a normative commitment or regulatory compliance. ESG implementation has the potential to become a new source of pressure through increased environmental compliance costs, social demands, and strengthening governance that requires substantial resources. This situation poses a dilemma, where ESG is expected to strengthen the company's sustainability and reputation, but in the short term it can exacerbate financial pressures. Therefore, ESG needs to be studied not only in terms of performance, but also from its role in influencing financial distress and its implications for the timeliness of financial reporting.

In addition to the company's internal mechanisms reflected through ESG implementation, external factors in the form of ownership structures are also important elements that affect the company's financial stability and reporting quality. In the context of the Indonesian capital market, the role of foreign investors is becoming increasingly relevant given their contribution to market liquidity and the formation of risk perception towards issuers. Foreign investors generally bring stricter standards of analysis, governance, and transparency expectations, thus potentially encouraging improvements in the quality of company management.

However, in emerging capital markets such as Indonesia, foreign ownership is also sensitive to macroeconomic dynamics and corporate financial risks. Amid the pressures facing the manufacturing sector, foreign investors tend to be more responsive to signals of financial instability, which can increase pressure on management. On the one hand, the existence of foreign investors has the potential to reduce the risk of financial distress through increased transparency and operational efficiency, as shown by Browning and Syafruddin (2022). On the other hand, such sensitivity can also affect the quality and timeliness of financial reporting. Therefore, the influence of foreign ownership on financial reporting delays is not always direct, but is very likely to work through the financial distress conditions experienced by companies.

In addition to its impact on financial conditions, foreign ownership also has implications for the timeliness of financial reporting (financial reporting delay). Companies with foreign investors are typically under greater pressure to comply with international reporting standards and maintain a reputation in the global market. Research shows that the proportion of foreign ownership does not always have a significant effect on audit delays, as foreign investors focus more on results than the audit process (Hermansyah and Ghiffari, 2025). However, this result differs from studies which found that the more widespread the ownership structure, including the presence of foreign investors, the greater the pressure on management to maintain the quality and timeliness of reporting (Hendi and Sitorus, 2023). On the other hand, research shows that ownership structures do not always have a significant impact on the timeliness of financial statements (Yulianti, 2020), indicating that there is still a research gap regarding the role of foreign investors in accelerating financial reporting in Indonesia's manufacturing sector. These diverse findings indicate that the influence of foreign ownership on the timeliness of financial reporting is not always direct, but can depend on the company's financial stability as reflected through the level of financial distress.

The novelty of this research lies in four main aspects. First, this study uses the Merton Model to measure financial distress, which captures forward-looking market expectations through stock price volatility and capital structure, unlike prior studies that relied on accounting ratios. Second, this study employs Two-Stage Least Squares (TSLS) panel data regression to address potential endogeneity issues in the mediation model, particularly the bidirectional relationship between financial distress and reporting delay. Third, this study integrates three independent variables (ESG score and foreign ownership) with a mediating variable (financial distress) and a dependent variable (financial reporting delay) in a single analytical framework with 115 firm-year observations from 23 manufacturing companies over five years (2020–2024). Fourth, this study provides empirical evidence from Indonesia, an emerging market with distinct characteristics (voluntary ESG reporting, concentrated ownership structures, developing regulatory environment), contributing to the literature beyond developed country contexts.

This study was conducted because there are still inconsistencies in the results of previous studies related to financial distress and delayed financial reporting. Unlike previous studies that generally use financial ratio-based measures of financial distress, this study uses the Merton Model as a market-based approach. In addition, this study examines the integrated influence of ESG score and foreign ownership on financial reporting delay with financial distress as a mediating variable in a single analytical framework.

METHODS

Types and Data Sources

This study employs a quantitative approach using officially published secondary data from manufacturing companies listed on the Indonesia Stock Exchange (IDX) during 2020–2024. Primary data sources include annual financial statements, sustainability reports, and company ownership information. Audited financial statements were used to ensure data consistency and quality, particularly for measuring potential financial distress, with financial figures obtained from the IDX website and the Thomson Reuters database.

Financial reporting delay was measured as the number of days between the fiscal year-end (December 31) and the publication date of annual reports. Foreign ownership data were extracted from the shareholder structure sections of the reports. ESG (Environmental, Social, Governance) scores were sourced from Thomson Reuters (Refinitiv Eikon/LSEG Workspace) to ensure standardization, comparability, and consistency. All collected data were processed to create the research variables needed for subsequent analysis.

Population and Sample

The study population consists of all manufacturing companies listed on the Indonesia Stock Exchange (IDX) during 2020–2024, covering four sub-sectors: Basic Materials, Industrial, Consumer Cyclical, and Consumer Non-Cyclical. This sector was chosen due to its capital-intensive nature, sensitivity to production cost fluctuations, governance and sustainability pressures, and complex operations that may affect financial reporting timeliness (Wijoyo, 2021; Nanda & Yandari, 2025; Sihombing & Hing, 2021).

Purposive sampling was applied to select companies with audited financial statements, complete foreign ownership data, and full ESG scores or sustainability reports for 2020–2024 (Abdussamad, 2021). After screening for data completeness, 23 companies met all criteria and

were selected as the research sample. This ensures the sample is consistent, complete, and suitable for the study's analytical purposes.

RESULTS AND DISCUSSION

Statistics Descriptive

Before testing the hypothesis, the researcher first conducts a descriptive statistical analysis to provide an overview of the characteristics and distribution of the research data. The data used in this study came from 23 manufacturing sector companies listed on the Indonesia Stock Exchange (IDX) for the 2020–2024 period, so that the total observations obtained were 115 data for all variables. Data processing is carried out using the EViews 10 application. The descriptive statistics presented include mean values, median values, maximum values, and standard deviations. The following are the results of the descriptive statistical test:

Table 1. Descriptive Statistical Test Results

	<i>DISTRESS</i>	<i>ESGSCORE</i>	<i>FOREIGN</i>	<i>DELAY</i>	<i>SIZE</i>
<i>Mean</i>	0.175	39.074	0.336	72.904	30.972
<i>Median</i>	0.070	39.820	0.261	81.000	31.020
<i>Maximum</i>	0.730	82.120	0.931	267.000	32.940
<i>Minimum</i>	0.000	0.000	0.000	0.000	27.590
<i>Std. Dev.</i>	0.208	25.968	0.283	30.746	1.255
<i>Skewness</i>	0.978	-0.198	0.841	1.639	-0.545
<i>Kurtosis</i>	2.628	1.861	2.540	16.357	2.775
<i>Jarque-Bera</i>	18.992	6.971	14.587	906.354	5.943
<i>Probability</i>	0.000	0.031	0.001	0.000	0.051
<i>Sum</i>	20.092	4493.470	38.610	8384.000	3561.790
<i>Sum Sq. Dev.</i>	4.927	76872.290	9.142	107767.900	179.644
<i>Observations</i>	115	115	115	115	115

Based on table 4.3 above, the financial distress variable measured using the Merton Model has an average value of 0.174716 with a standard deviation of 0.207892. The highest value of this variable was 0.729600 (72.96%), recorded at PT. Unilever Indonesia Tbk (UNVR) in 2024, while the lowest value of 0.000000 (0%) is recorded at several companies in various years—for example, PT. Avia Avian Tbk (AVIA) in 2020 and PT. Astra Agro Lestari Tbk (AALI) in 2022. The companies with the highest financial distress scores experienced the most serious financial distress among the sample, while the minimum value of 0% indicates that some of the companies in the sample experienced no financial distress at all or had a very low probability of default.

The ESG Score variable in this study is an aggregate score obtained from the LSEG Workspace database (Thomson Reuters/Refinitiv). This score covers three main aspects: environment, social, and governance. Refinitiv's ESG score is calculated using the percentile rank method with weights adjusted based on each company's industry-specific characteristics.

The average value of the ESG Score in the sample is 39.07365 with a standard deviation of 25.96764. The highest score reached 82.12000, which was recorded at PT. Unilever Indonesia Tbk (UNVR) in 2022. This showed that the company consistently implements good environmental practices, has strong social relationships with employees and the community, and implements transparent corporate governance. Meanwhile, the lowest value of 0.00000 was recorded in several companies such as PT. Avia Avian Tbk (AVIA) before 2023, PT. Akasha Wira International Tbk (ADES) in 2020–2021, PT. Gudang Garam Tbk (GGRM), PT. Charoen Pokphand Indonesia Tbk (CPIN) in certain periods, and PT. Wijaya Karya Beton Tbk (WTON) in 2020–2021. This minimum value of 0 occurs because the company does not publish sustainability reports or is not documented in the LSEG Workspace database.

The foreign ownership variable showed an average value of 0.335741 (33.57%) with a standard deviation of 0.283184. The highest value of foreign ownership reached 0.930900 (93.09%), which was recorded at PT. Unilever Indonesia Tbk (UNVR) in 2024, showing that the majority of its shares are controlled by foreign investors. Meanwhile, the lowest value of 0.000000 (0%) was recorded in several companies such as PT. Goodyear Indonesia Tbk (GOOD) in several years, PT. Sido Muncul Herbal and Pharmaceutical Industry (SIDO), and PT. Wijaya Karya Beton Tbk (WTON). A minimum value of 0% indicates that these companies have no foreign investors at all, meaning that all their shares are controlled by domestic investors.

The reporting delay variable has an average value of 72.90435 days with a standard deviation of 30.74627. The highest value of reporting delays reached 267 days, recorded at PT. Avia Avian Tbk (AVIA) in 2020. This showed that the company experienced the most severe delays (approximately 8.9 months), likely due to difficulties in completing the annual audit process due to problematic financial conditions. Meanwhile, the lowest value of 27.59 days was recorded at PT. Akasha Wira International Tbk (ADES) in 2020, which means that financial statements were submitted less than one month after the fiscal year closing date. This company is therefore included in the category of relatively timely financial reporting.

The firm size control variable, measured through the natural logarithm of total assets, has an average value of 30.97209 with a standard deviation of 1.255318. The highest value of company size reached 32.94, which was recorded at PT. Indofood Sukses Makmur Tbk (INDF) in 2024, while the lowest value of 27.59 was recorded at PT. Akasha Wira International Tbk (ADES) in 2020. The relatively small standard deviation indicates that the size of companies within the sample tends to be homogeneous, meaning that the companies in this study sample have a relatively balanced scale, ranging from moderately large to moderately small.

Overall, the results of descriptive statistics show that the data used in this study has quite high variations, especially in the variables of ESG Score, foreign ownership, and reporting delay. This high variation indicates that the characteristics of the sample companies are quite diverse, so the regression model used needs to be able to accommodate differences between companies. The minimum value of zero in several variables such as financial distress, ESG Score, and foreign ownership indicates that not all companies in the sample have values for these variables during the observation period. This is important to note in subsequent analysis because it can affect the estimation results. Meanwhile, the relatively small standard deviation value on the firm size variable shows that firm size within the sample tends to be homogeneous,

so this control variable can be used to capture the firm-scale effect without causing significant bias. Thus, the collected data is considered adequate for further hypothesis testing.

Common Effect Model (CEM) Equation 1 Results

Before calculating the Chow Test for Equation 1, the following are presented the results of the CEM and FEM estimation for Equation 1 with the dependent variable financial distress.

Table 1. CEM Results for Equation 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.581678	0.522369	-1.113538	0.2679
ESGSCORE	0.000886	0.000839	1.056637	0.2930
FOREIGN	0.076023	0.070079	1.084821	0.2804
SIZE	0.022480	0.017147	1.310971	0.1926

Statistic	Value
R-squared	0.055468
Adjusted R-squared	0.029940
Mean dependent var	0.174716
S.D. dependent var	0.207892
S.E. of regression	0.204756
Sum squared resid	4.653672
F-statistic	2.172826
Prob(F-statistic)	0.095244
Durbin-Watson stat	2.048493
Second-Stage SSR	4.653672
Instrument rank	4

Based on Table 1, the prob(F-statistic) value is 0.095244. This value is smaller than 0.10, so the CEM model for Equation 1 can be declared fit at a significance level of 10%. As explained in chapter 3, significance levels of up to 10% are still acceptable in social research, especially for models of certain complexity or limited sample counts. The adjusted R-squared value is only 0.029940, meaning that the independent variable is only able to explain about 2.99% of the variation in financial distress.

Fixed Effect Model (FEM) Results of Equation 1

Table 2. FEM Results for Equation 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.581678	0.522369	-1.113538	0.2679
ESGSCORE	0.000886	0.000839	1.056637	0.2930
FOREIGN	0.076023	0.070079	1.084821	0.2804
SIZE	0.022480	0.017147	1.310971	0.1926

Statistic	Value
R-squared	0.055468
Adjusted R-squared	0.029940
Mean dependent var	0.174716

Variable	Coefficient	Std. Error	t-Statistic	Prob.
S.D. dependent var	0.207892			
S.E. of regression	0.204756			
Sum squared resid	4.653672			
F-statistic	2.172826			
Prob(F-statistic)	0.095244			
Durbin-Watson stat	2.048493			
Second-Stage SSR	4.653672			
Instrument rank	4			

Based on Table 2, the adjusted R-squared value in FEM shows a negative number (-0.019050). This indicates overparameterization (too many dummy variables) because the number of companies (23) resulted in 22 dummy variables being included in the model, while the number of observations was only 115. The prob(F-statistic) value of 0.584905 > 0.05 also indicates that the FEM model as a whole is not fit.

After presenting the results of the hypothesis testing in the previous sub-chapter, this section will discuss in depth the findings. Overall, all five hypotheses in this study were rejected. There is insufficient statistical evidence to support that ESG scores and foreign ownership have a negative effect on financial distress, that financial distress has a positive effect on financial reporting delays, or that financial distress plays a mediator. These results are interesting to discuss further because they contradict a framework built on agency theory, signal theory, and legitimacy theory.

The Effect of ESG Score on Financial Distress

This study found that ESG scores do not have a significant effect on financial distress in manufacturing companies for the 2020-2024 period. These findings apply both when ESG is broken down into three components (environmental, social, governance) and after they are combined into a single aggregate score. The CEM model used to test this relationship is declared fit at a significance level of 10%, as explained in Chapter 3 that in social research a significance level of up to 10% is still acceptable, especially for models with a certain complexity or a limited number of samples.

One of the most likely explanations is that ESG score in Indonesia is still not the main benchmark in assessing a company's financial risk. In contrast to developed countries where ESG has become an integral part of investment analysis, in Indonesia awareness of the importance of ESG is still relatively low. Investors, creditors, and other stakeholders have not fully made ESG scores an indicator in decision-making. As a result, companies with high ESG scores do not necessarily get a better perception of risk from the market, while companies with low ESG scores are also not necessarily considered high risk.

Another factor that is no less important is the quality of the ESG data itself. Based on the raw data used in this study, it can be seen that many sample companies had an ESG score of zero (0) in the early years of the study period. For example, PT. Avia Avian Tbk (AVIA) has an ESG score of 0 from 2020 to 2022, only having scores in 2023 (75.50) and 2024 (76.64). PT. Akasha Wira International Tbk (ADES) has an ESG score of 0 in 2020-2021, only to have a score in 2022-2024. PT. Charoen Pokphand Indonesia Tbk (CPIN) also recorded an ESG score of 0 in several periods. Even large companies such as PT. Gudang Garam Tbk (GGRM)

and PT. Wijaya Karya Beton Tbk (WTON) also has a record of ESG scores that are empty in certain years.

The incompleteness of this data reflects that ESG reporting practices in Indonesia are still inconsistent. Many companies are only starting to report ESG in the final years of the study period, so the data available may not yet reflect true sustainability performance. In addition, the LSEG Workspace database (Thomson Reuters/Refinitiv), which is the source of ESG scores in this study, also has limited coverage for companies in Indonesia. Not all listed companies have complete ESG data, and even companies with ESG scores may not have data for each year in a row.

Thus, the finding that ESG scores have no significant effect on financial distress is not entirely surprising. If ESG data alone is still largely blank or only available in the final years of the period, then it is difficult to expect that these variables can explain the variation in financial distress significantly. This shows that it takes longer time and stricter regulations for ESG reporting in Indonesia to be more mature and the data more reliable to analyze.

The Effect of Foreign Ownership on Financial Distress

The study also found that foreign ownership had no significant effect on financial distress. Even the direction of the positive coefficient, although not significant, indicates that the larger the portion of foreign ownership tends to increase the risk of financial distress. These findings contradict the argument that foreign investors bring better governance standards and stricter supervision.

A possible explanation is that foreign investors are not always active in overseeing management. In many cases, foreign investors are passive and only invest for long-term profits. When companies start to show signs of financial pressure, foreign investors tend to withdraw their funds faster than domestic investors. This behavior can actually worsen the company's financial condition.

For example, PT. Goodyear Indonesia Tbk (GOOD), which had foreign ownership of around 20% at the beginning of the period, actually experienced quite high financial pressure with a financial distress rate of 37.98% in 2021 and 60.92% in 2024. PT. Unilever Indonesia Tbk (UNVR), which has the highest foreign ownership (93.09%), also recorded the highest financial distress (72.96%) in 2024. Although this relationship is not causal, it at least suggests that high foreign ownership does not necessarily guarantee the financial health of a company.

Additionally, companies with significant foreign ownership often face additional challenges such as differences in business culture, geographic distance, and the cost of compliance with international standards. These challenges can be a burden that increases operational costs, which can ultimately worsen financial conditions.

The Effect of Financial Distress on Financial Reporting Delay

This study found that financial distress did not have a significant effect on financial reporting delay, although the direction of the positive coefficient was in accordance with the hypothesis. This means that while companies under financial stress should intuitively be slower to report financially, the empirical evidence in this study does not support this relationship.

The most plausible explanation is the regulatory factor. The Financial Services Authority and the Indonesia Stock Exchange have strict sanctions for companies that are late in submitting financial statements, such as written warnings, fines, and suspension of stock trading. This regulatory pressure may be more dominant than the pressure from the company's

own financial condition. In other words, even though companies are experiencing financial difficulties, they are still trying to meet deadlines for fear of sanctions.

For example, PT. Avia Avian Tbk (AVIA), which experienced the longest reporting delay (267 days) in 2020, in the same year had a very low financial distress (0%). On the other hand, companies with high financial distress such as UNVR (72.96% in 2024) actually have relatively low delays (44 days). This pattern suggests that reporting delays are not always caused by financial pressures. Other factors such as the change of public accounting firms, natural disasters, or pandemics that cause social restrictions and working from home may play a greater role in causing delays.

The Role of Financial Distress as a Mediator

This study also examines whether financial distress plays a mediator in the influence of ESG score and foreign ownership on financial reporting delays. The results show that there is no mediating effect, both for ESG scores and foreign ownership. Two main conditions of mediation were not met: first, ESG score and foreign ownership had no significant effect on financial distress; second, financial distress itself also did not have a significant effect on financial reporting delays.

The very small indirect effect value further confirms that there are almost no indirect effects transmitted through financial distress. If ESG scores or foreign ownership affects financial reporting delays, these influences are likely to occur through other mechanisms not examined in this study. One possible alternative mechanism is the direct influence of governance aspects in ESG on the reporting process, such as the quality of the board of commissioners, transparency, and the effectiveness of the audit committee.

CONCLUSION

Based on the results of the analysis and discussion that have been carried out, this study concludes several things as follows.

First, the ESG score has not been proven to have a negative effect on financial distress in manufacturing sector companies for the 2020–2024 period. Based on the results of a statistical test using an aggregate ESG score (a score that includes environmental, social, and governance aspects), it was found that ESG score did not have a significant influence on financial distress. These findings indicate that in Indonesia, ESG has not been a strong enough factor in influencing the financial health of companies. ESG score in Indonesia is still rarely used as the main benchmark in assessing a company's financial risk. This is reflected in the raw data showing that many sample companies had an ESG score of zero (0) in the early years of the study period—for example, PT. Avia Avian Tbk, PT. Akasha Wira International Tbk, PT. Charoen Pokphand Indonesia Tbk, PT. Gudang Garam Tbk, and PT. Wijaya Karya Beton Tbk. Consequently, it is difficult to expect that these variables can significantly explain the variation in financial distress.

Second, foreign ownership has also not been proven to have a negative effect on financial distress. The results of the statistical test show that foreign ownership does not have a significant influence on financial distress, with a positive coefficient direction although weak. These findings suggest that the presence of foreign investors does not automatically improve corporate governance or reduce financial risk. It is likely that foreign investors tend to be

passive and withdraw their funds when the company begins to experience pressure, which can actually worsen financial conditions.

Third, financial distress has not been proven to have a positive effect on financial reporting delays. Although the direction of the positive coefficient corresponds to the hypothesis, the effect is not statistically significant. This indicates that the delay in financial reporting in Indonesia is more influenced by other factors, especially regulatory pressure from the Otoritas Jasa Keuangan (Financial Services Authority) and the Bursa Efek Indonesia (Indonesia Stock Exchange), which have strict sanctions for companies that report financial statements late.

Fourth, financial distress does not play a mediating role in the influence of ESG score and foreign ownership on financial reporting delays. The two main conditions of mediation were not met, and the very small indirect effect value further confirmed the absence of a mediating effect in this study model. Thus, all five hypotheses put forward in this study were rejected.

This research has several limitations that need to be acknowledged. First, the research period is relatively short (2020–2024) and covers the COVID-19 pandemic, which was an abnormal condition. Consequently, the research results may not be generalizable to normal periods. Second, the limited number of samples (23 companies) is due to the availability of ESG data that is still largely unavailable in the LSEG Workspace database for Indonesian companies, which simultaneously confirms that ESG reporting in Indonesia is still in its infancy. Third, the ESG data used comes from a single source that may have limited coverage. Fourth, the low adjusted R-squared values in some models indicate that there are many other factors outside the model that affect financial distress and financial reporting delays. Fifth, because all hypotheses are rejected, this result actually opens a space for discussion suggesting that theories applicable in developed countries are not necessarily relevant in the Indonesian context, especially for emerging topics such as ESG.

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