

ESG Practices and Financial Performance in Malaysia PN17 and GN3 Distressed Companies

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ABSTRACT

This study examined the relationship between environmental, social, and governance (ESG) practices and corporate financial performance (CFP) among Malaysian financially distressed listed companies classified under PN17 and GN3. Unlike many ESG studies that focused on general listed companies, this study focused on distressed companies, where governance quality, investor confidence, and recovery capacity were more critical. Using annual panel data from 2015 to 2024, ESG was measured using environmental, social, and governance pillar scores, as well as a composite ESG score. CFP was measured using return on assets (ROA) and return on investment (ROI), while company size, company age, revenue growth, debt, insider shareholdings, and board size were included as control variables. The findings showed that governance performance was the most consistent ESG dimension associated with stronger financial outcomes among distressed companies. Environmental and social pillars did not show statistically significant relationships with ROA and ROI. The composite ESG score was also insignificant, suggesting that combining ESG dimensions into one overall score may hide important differences between ESG pillars. The significance of this study lies in showing that ESG did not operate as a single uniform construct among financially distressed companies. Instead, governance appeared to be the most decision-relevant ESG dimension in the PN17 and GN3 context. These findings contribute to ESG and management accounting literature by showing how governance-related ESG information can support performance evaluation, risk monitoring, capital allocation, and recovery planning among distressed companies.

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1. INTRODUCTION

The stock market in Malaysia is strongly linked with the financial distress of the listed companies under PN17 and GN3. These types of companies are affected by significant operational and reputational consequences and are frequently considered as incapable of fulfilling the most essential requirements or being at risk of being delisted (Hashim, 2021). After being classified as PN17 or GN3, investor trust was also likely to decline, fundraising becomes more difficult, and stock prices can be influenced (Bakar and Noordin, 2021). There was also a desire among the stakeholders to see financial situations transparently disclosed and recovery plans implemented in time to recover financial health and reclassify out of PN17 or GN3 (Zainol and Salleh, 2021). The more time a company operates under PN17 or GN3, the greater its effects may be on investors and other shareholders (Shahimi et al., 2021). This drives recovery strategies up the agenda of practicality and begs the question of what strategies can be used to restore credibility, bolster the quality of governance and enhance CFP. Earlier literature has indicated that effective management and more robust ESGs can be used to curtail delisting risk and enhance CFP results (Viard and Zhang, 2023).

ESG has a good case as to why it has financial implications, particularly in the case of troubled companies. The stakeholders become more and more concerned about the companies to consider ESG problems as they can affect the performance by reputation, risk management, effectiveness of operations, and relationships with investors (Bilyay-Erdogan et al., 2023). In the case of troubled companies, ESG can act as an organized manner of identifying and controlling environmental exposure, social problem-related risks, and governance inefficiency weaknesses to enable operations to be more accountable (Said et al., 2009). ESG practices can also contribute to such investors that integrated sustainability in investment, enhance operational efficiency by saving costs and optimizing resources and enhancing the trust of stakeholders, which can convert into improved CFP (Mohammad & Wasiuzzaman, 2021; Stedman, 2023). Compliance and availability of incentives to motivate sustainable practices can also be supported by alignment with the ESG standards to enhance financial stability across a period (Tolliver et al., 2019; World Benchmarking Alliance, 2022). There is limited evidence indicating that investors might be more intolerant of poor ESG performance than poor CFP, making ESG more strategically valuable to the companies which attempted to retain the confidence of the market (Chen and Xie, 2022; Zeidan, 2022). It is also increasingly accepted at the international level that it is good governance that must be provided via implementation of ESG, which supported the fact that that ESG was not a simple branding exercise (Denters et al., 2023).

Considering these controversies, financially stressed companies of PN17 and GN3 in Malaysia require closer surveillance. These companies have unique limitations of reduced profitability, liquidity strains, and high levels of debts that may be augmented by the weaknesses in governance, poor transparency, and accountability (Ariff and Abubakar, 1998). Consequently, the results of the financially stable companies cannot be generalized to PN17 and GN3 companies. The required reporting of sustainability has also been introduced to the listed companies in Bursa Malaysia, and the era of compulsory reporting is a significant period to discuss. PN17 and GN3 companies are the ones that should be considered as they are popular with public funds but can be defined as low-profitable, which means that the risk of investors is more vulnerable (Nguyen and Nguyen, 2019). To that end, the study considered the PN17 and GN3 companies operating in Bursa Malaysia between the year 2015 and 2024 to determine whether the application of ESG practices resulted in enhanced CFP results over the period.

A unique feature of the Malaysian stock market is that financially distressed listed companies can be formally identified through Bursa Malaysia's PN17 and GN3 classification structure. This differs from many other market settings where financial distress is often identified indirectly using accounting ratios, bankruptcy prediction models, or researcher-defined distress measures. In Malaysia, PN17 and GN3 provide a clearer listing-based classification that allows financially distressed companies to be tracked more systematically across time. This makes the Malaysian setting particularly relevant for examining ESG practices among distressed companies. Since the PN17 and GN3 listing criteria are still not widely understood in ESG-CFP research, this study provided a more specific context for understanding why ESG, particularly governance, may be important for companies facing financial distress, recovery pressure, and possible delisting risk.

This study contributes to the ESG and corporate financial performance literature in three ways. First, it extended ESG-CFP research into the specific context of Malaysian PN17 and GN3 financially distressed companies. This context is important because distressed companies operate under stronger recovery pressure, lower investor confidence, liquidity constraints, and possible delisting risk. Therefore, the relationship between ESG and CFP may not be the same as financially stable listed companies. Second, the study contributed by examining ESG at the pillar level instead of depending only on a composite ESG score. This is important because the findings showed that governance had a stronger and more consistent relationship with ROA and ROI compared to environmental and social scores. Third, the study contributed to management accounting and governance practice by showing that governance-related ESG information can be used as a decision-useful input in performance evaluation, risk management, internal control, and recovery monitoring among distressed companies. Therefore, the study did not only confirm existing ESG-CFP literature, but also explained which ESG dimension was more relevant in the financially distressed setting.

The objective was to explore the connection between ESG practices and CFP between the companies found in the categories PN17 and GN3. The specific objectives were:

- (i) To examine the relationship between environmental ESG practices and CFP among PN17 and GN3 companies.
- (ii) To examine the relationship between social ESG practices and CFP among PN17 and GN3 companies.
- (iii) To examine the relationship between governance ESG practices and CFP among PN17 and GN3 companies.
- (iv) To examine the relationship between overall ESG practices and CFP among PN17 and GN3 companies.
- (v) To examine the relationship between company-specific control variables and CFP among PN17 and GN3 companies.

The research questions were:

- (i) What is the relationship between environmental ESG practices and CFP among PN17 and GN3 companies?
- (ii) What is the relationship between social ESG practices and CFP among PN17 and GN3 companies?
- (iii) What is the relationship between governance ESG practices and CFP among PN17 and GN3 companies?
- (iv) What is the relationship between overall ESG practices and CFP among PN17 and GN3 companies?
- (v) How do company-specific control variables relate to CFP among PN17 and GN3 companies?

2. LITERATURE REVIEW

2.1 ESG and CFP

ESG practices were commonly used to evaluate how a company manages sustainability responsibilities, stakeholder expectations, and governance quality. Generally, ESG was presented in three pillars. Environmental pillar entailed activities like reducing climate change, good use of resources, reducing pollution, and waste, and safeguarding biodiversity. The social pillar encompassed equitable labour standards, human rights, interaction with the community and ethical customer conduct. The pillar of governance centred on the constitution of the board, ethical behaviour, disclosure transparency, and safeguarding the rights of shareholders (Alsayegh et al., 2020; Li et al., 2021). The combination of sustainability activities into these pillars also helps in benchmarking the activities across time and with the peers which can promote greater accountability and continuous improvement.

One of the reasons why ESG has become closely associated with the CFP is that stakeholders have come to perceive ESG performance as indicative of the quality of management and business sustainability. In other contexts, investors might prefer weak CFP over weak ESG because ESG could indicate exposure to risk in the future and reputational exposure (Chen and Xie, 2022; Zeidan, 2022). ESG also interrelated with the governance expectations, as the phenomenon of good governance was becoming a prerequisite of sustainable development and responsible business (Denters et al., 2023). This reinforces the thesis that ESG is more than a reporting effort, but it is also included in the process of evaluating a company to be credible and viable over the long term.

Financial stress alters the priorities of the business and the expectation of the stakeholders which may impact the relationship between ESG and CFP. The PN17 and GN3 companies were the ones that worked under significant pressure and are usually viewed as struggling with severe financial constraints and the risk of delisting (Hashim, 2021). This classification may diminish the investor confidence, decrease fundraising capacity and influence stock prices (Bakar and Noordin, 2021). Another aspect that has been contributed to by the stakeholders is more transparent disclosure and recovery planning, as long-term distress might exacerbate the adverse effects on investors and shareholders (Zainol and Salleh, 2021;

Shahimi et al., 2021). Credibility and transparency are more delicate in such an environment, and in such a case, the interpretation of ESG actions may vary.

2.2 Hypotheses Development

Table 1. Alignment of Research Objectives, Research Questions and Hypotheses

Research Objective	Research Question	Hypothesis
RO1: To examine the relationship between environmental ESG practices and CFP among PN17 and GN3 companies	RQ1: What is the relationship between environmental ESG practices and CFP among PN17 and GN3 companies?	H1: Environmental ESG practices have a significant positive relationship with CFP among PN17 and GN3 companies
RO2: To examine the relationship between social ESG practices and CFP among PN17 and GN3 companies	RQ2: What is the relationship between social ESG practices and CFP among PN17 and GN3 companies?	H2: Social ESG practices have a significant positive relationship with CFP among PN17 and GN3 companies.
RO3: To examine the relationship between governance ESG practices and CFP among PN17 and GN3 companies.	RQ3: What is the relationship between governance ESG practices and CFP among PN17 and GN3 companies?	H3: Governance ESG practices have a significant positive relationship with CFP among PN17 and GN3 companies.
RO4: To examine the relationship between overall ESG practices and CFP among PN17 and GN3 companies.	RQ4: What is the relationship between overall ESG practices and CFP among PN17 and GN3 companies?	H4: Overall ESG practices have a significant positive relationship with CFP among PN17 and GN3 companies.
RO5: To examine the relationship between company-specific control variables and CFP among PN17 and GN3 companies.	RQ5: How do company-specific control variables relate to CFP among PN17 and GN3 companies?	H5: Company-specific control variables are significantly associated with CFP among PN17 and GN3 companies

Source: Authors' compilation.

Company-specific control variables were also included because CFP may be influenced by internal company characteristics beyond ESG practices. In distressed companies, factors such as company size, company age, revenue growth, debt, insider shareholdings, and board size may affect financial performance because they reflect operational capacity, financial structure, ownership monitoring, and governance resources. Revenue growth is particularly important in a recovery setting because it reflects the ability of the company to regain business activity and improve operating performance. Meanwhile, company size, debt, ownership structure, and board size may influence how effectively a distressed company manages resources and recovery strategies. Therefore, the following hypotheses were developed:

H5: Company-specific control variables are significantly associated with CFP among PN17 and GN3 companies.

H5 can be divided into the following sub-hypotheses:

- (i) H5a: Company size is significantly associated with CFP among PN17 and GN3 companies.
- (ii) H5b: Company age is significantly associated with CFP among PN17 and GN3 companies.
- (iii) H5c: Revenue growth is significantly associated with CFP among PN17 and GN3 companies.
- (iv) H5d: Debt is significantly associated with CFP among PN17 and GN3 companies.
- (v) H5e: Insider shareholdings are significantly associated with CFP among PN17 and GN3 companies.
- (vi) H5f: Board size is significantly associated with CFP among PN17 and GN3 companies.

3. DATA AND METHODOLOGY

3.1 Research Design and Sample

The study was based on a quantitative and explanatory research design with the help of the static panel data analysis in order to test the relationships between the ESG practices and CFP of financially distressed companies in the stock market. A panel approach was appropriate since it traced the same companies over period of time and hence it captured cross-sectional differences between companies as well as time-series changes within an individual company. This dataset was designed in the form of yearly observations within a 10-year range, which enabled the analysis to display the shift in ESG practices and company results over a stable time frame.

The sample frame was pegged on the PN17 and GN3 categories in Bursa Malaysia. The companies were selected using the official announcements and status of Bursa Malaysia. PN17 and GN3 listings areas were expanded to 2001 to 2024 to reflect the development of the distress categories and to be able to identify the troubled companies with high reliability. In this coverage, the companies that still had PN17/GN3 status and those that had left (recovered) it prior to the completion of the coverage were considered. Only delisted companies with full and publicly available data before delisting were considered to prevent biased estimates due to missing years of reporting.

The study used standard screening in the development of the final analytical sample to allow consistency and comparability among companies and years. The companies were eliminated in the absence of complete data, extreme or inconsistent values (outliers), and the companies were out of business (including delisting, bankruptcy or no operation at the time). This filtering helped in validity of the model and minimized distortion of statistical inference.

3.2 Data Sources and Period

The sources of data were of high importance; they included Bursa Malaysia and LSEG Workspace. Bursa Malaysia provided formal records of the PN17 and GN3 scenario, compliance documentation, company declaration and significant announcement such as reorganization exercises, mergers and delistings. The CFP measures were collected based on the annual reports of companies and their websites alongside LSEG Workspace based on availability. All the ESG information was received via LSEG Workspace. In the case of years or companies where third-party ESG coverage was not available, the ESG disclosures were assembled manually and were done by annual reports and sustainability statements posted

on company websites, Bursa Malaysia disclosures, and then checked against to ensure consistency in scoring.

The target period was 2015-2024 (annual). The methodological significance of starting in 2015 was that sustainability reporting became compulsory to listed companies under the Sustainability Reporting Framework by Bursa Malaysia, and hence, ESG information was more readily available and comparative across companies over time.

3.3 Variables and Measurement

Dependent variables: Corporate financial performance (CFP)

ROA and ROI, which are the profitability-based measures, were used to measure CFP when it came to performance under recovery pressure. ROA indicated the efficiency with which a company earned money on its asset base, and ROI was the earnings of investment as compared to the cost of the investment, representing the conclusions of investment-related decisions (Rashid, 2021; Thusini et al., 2022; Dormady et al., 2022; Al-Busaidi and Al-Muharrami, 2021; Saadaoui and Ben Salah, 2023).

- (i) ROA was measured as earnings relative to total assets.
- (ii) ROI was measured as earnings from investment (after relevant costs) relative to the investment cost.

Independent variables: ESG practices

ESG scores served to measure the practice of ESG, which helped to compare the ESG practices across companies (Liu, 2022). The analysis used:

- (i) E score (Environmental)
- (ii) S score (Social)
- (iii) G score (Governance)
- (iv) ESG score (Combined), constructed as the combined measure of E, S, and G where required.

Control variables

To reduce omitted-variable bias, the study included controls commonly linked to CFP:

- (i) Company size: a natural logarithm of equity in which the shareholders of the company were engaged in order to decrease skewness and enhance comparability (Nissim, 2013; Dang et al., 2018; Restrepo, Cardona-Sosa, and Strahan, 2018; Mkhaiber and Werner, 2021).
- (ii) Company age: the number of years since the company was founded (Sandvik et al., 2022; Tarighi et al., 2022).
- (iii) Revenue growth rate: calculated with the help of the log-difference method that was widely used in a panel (Wooldridge, 2016).
- (iv) Debt: calculated based on debt-to-assets ratio (Budsaratragoon & Jitmaneeiroi, 2021; Rachman et al., 2023).

- (v) Insider shareholdings: measured as insider ownership proportion (Ho, Nguyen, & Nguyen, 2024).
- (vi) Board size: measured as the total number of directors (Kyeré & Ausloos, 2021; Aziz et al., 2023).

3.4 Model Specification

The relationship between ESG practices and CFP was examined using static panel regression. Two model structures were used to assess both the pillar-level ESG effect and the overall ESG effect. Model A examined the separate relationship between environmental, social, and governance scores and CFP, while Model B examined the relationship between the composite ESG score and CFP.

Model A is specified as follows:

$$CFP_i = \beta_0 + \beta_1 EScore_i + \beta_2 SScore_i + \beta_3 GScore_i + \beta_4 COSIZE_i + \beta_5 AGE_i + \beta_6 RGR_i + \beta_7 DtAR_i + \beta_8 IS_i + \beta_9 BS_i + e_i \quad (1)$$

Where,

CFP_i = Corporate Financial Performance.

β_0 = The constant term.

$\beta_{1...9}$ = Estimate the coefficient or loading of the respective factor.

i = the i th company.

e_i = Error term.

$EScore_i$ = Environmental score.

$SScore_i$ = Social score.

$GScore_i$ = Governance score.

$COSIZE_i$ = Company size.

AGE_i = Company age.

RGR_i = Revenue growth rate.

$DtAR_i$ = Debt-to-assets ratio.

IS_i = Insider shareholding.

BS_i = Board size.

Model B is specified as follows:

$$CFP_i = \beta_0 + \beta_1 ESGScore_i + \beta_2 COSIZE_i + \beta_3 AGE_i + \beta_4 RGR_i + \beta_5 DtAR_i + \beta_6 IS_i + \beta_7 BS_i + e_i \quad (2)$$

Where,

CFP_i = Corporate Financial Performance.

β_0 = The constant term.

$\beta_{1...7}$ = Estimate the coefficient or loading of the respective factor.

i = the i th company.

e_i = Error term.

$ESGScore_i$ = Combined environmental, social, and governance score.

$COSIZE_i$ = Company size.

RGR_i = Revenue growth rate.

$DtAR_i$ = Debt-to-assets ratio.

IS_i = Insider shareholding.

AGE_i = Company age.

BS_i = Board size.

Model B tested the overall ESG relationship with CFP. The combination of both models made it easier to interpret since the offsetting things between E, S, and G might be obscured by total score obtained, whereas the pillars model demonstrated what was contributing to the outcomes.

3.5 Diagnostic And Estimation Approach

There were a number of diagnostics that supported valid inference. The measures of normality included skewness, kurtosis and Jarque–Bera test. Correlation analysis and the variance inflation factors (VIF) were used to check multicollinearity. A group-wise heteroskedasticity method (Modified Wald) was used to test heteroskedasticity, and where appropriate, robust standard errors were used as an improvement to inference.

The Durbin-Watson test was used to evaluate the level of autocorrelation. Serial correlation and small-sample problems may influence inference, so they used strong methods when the need arose (White, 1992; Alsharef et al., 2022; Xu et al., 2023). Panel unit root tests, LLC, IPS, ADF, and PP, were all used to check stationarity (Lee et al., 2021; Ampofo et al., 2021; Chang et al., 2022; Chen et al., 2024).

The estimation continued by comparing pooled OLS, fixed effects and random effects. Model choice was guided using fixed-effect redundancy testing and the Hausman test. The analysis was conducted using EViews 12 Student Version.

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

Table 2 and Table 3 present the descriptive statistics for the dependent, independent, and control variables used in the study. The results showed that ROA and ROI recorded negative mean values, indicating that the sampled PN17 and GN3 companies generally experienced weak accounting performance during the observation period. The ESG pillar scores also showed variation across companies, suggesting differences in the level of environmental, social, and governance practices among financially distressed companies.

4.2 Main Regressions (E, S, and G)

When the ESG pillars were entered simultaneously, the main pattern appeared in governance. Table 6, ROA (E, S, G model). There was positive and statistically significant governance (GScore = 0.4059, $p = 0.0216$). There was no significant difference in environmental and social (EScore = -0.0708, $p = 0.6940$; SScore = -0.1463, $p = 0.3439$). The implication of this was that better governance scores will be found to be related to a higher ROA in distressed companies, whereas the environmental and social scores will not exhibit any quantifiable short-run relationship with ROA in such an environment.

The controls gave a clearer picture of what drove accounting profitability during distress. Company size was strongly negative and significant (-183.17, $p = 0.0000$), while revenue growth rate was strongly positive and significant (9.0426, $p = 0.0000$). Company age, debt, insider shareholdings, and board size were not significant in this model. Model fit was modest ($R^2 \approx 0.051$), but the overall model was statistically significant (F-statistic ≈ 4.34 , $p \approx 0.0000$). Modest R^2 values were common in ESG–CFP regressions.

ROI (E, S, G model). The pillar pattern was similar. Governance remained positive and significant (GScore = 1.4186, $p = 0.0136$), while environmental and social remained insignificant (EScore = -0.4030, $p = 0.4914$; SScore = -0.3746, $p = 0.4561$). Revenue growth rate was again positive and significant (13.8938, $p = 0.0000$). Company size was negative and marginal (-211.72, $p = 0.0617$), while the remaining controls were not significant. The ROI model had lower explanatory power ($R^2 \approx 0.020$) and was not jointly significant at 5% (F-statistic ≈ 1.67 , $p \approx 0.0931$), but the governance and revenue growth signals remained clear.

4.3 Main Regression (ESG)

Replacing the three pillars with a single composite ESGScore weakened the ESG signals in Table 6, ROA (ESGScore model). The composite ESG score was positive but not significant (ESGScore = 0.0388, $p = 0.6854$). The control pattern remained stable. Company size stayed strongly negative and significant (-183.39, $p = 0.0000$), and revenue growth rate stayed strongly positive and significant (9.0175, $p = 0.0000$). Other controls remained insignificant. Model fit remained modest ($R^2 \approx 0.043$), with the overall model statistically significant (F-statistic ≈ 4.67 , $p \approx 0.0000$).

ROI (ESGScore model). ESGScore was again not significant (0.1481, $p = 0.6347$). Revenue growth rate remained positive and significant (13.7834, $p = 0.0145$). Company size was negative and marginal (-211.82, $p = 0.0624$). The overall model was not significant (F-statistic ≈ 1.13 , $p \approx 0.34$), and explanatory power was low ($R^2 \approx 0.011$).

4.4 Revisiting Research Objectives, Research Questions and Hypotheses

This section revisits the research objectives, research questions, and hypotheses in relation to the overall purpose of the study. The main aim of this study was to examine whether ESG practices were associated with corporate financial performance among Malaysian financially distressed companies classified under PN17 and GN3. This context was important because PN17 and GN3 companies operated under financial pressure, weak investor confidence, restructuring demands, and possible delisting risk. Therefore, the ESG-CFP relationship in this study should be interpreted from the perspective of recovery, governance discipline, stakeholder confidence, and financial survival.

The results showed that ESG practices were not uniformly associated with CFP across all ESG dimensions. Environmental and social ESG practices were not significantly associated with ROA and ROI. Therefore, H1 and H2 were not supported. This suggests that, among PN17 and GN3 companies, environmental and social initiatives may not produce immediate financial outcomes in accounting-based measures. One possible explanation was that environmental and social practices often require additional investment, longer implementation periods, and stable financial resources before their benefits can be reflected in profitability or investment returns. Since financially distressed companies usually faced liquidity constraints and operational instability, they may not be able to convert environmental and social initiatives into short-term financial improvement.

In contrast, governance ESG practices showed a positive and significant relationship with both ROA and ROI. Therefore, H3 was supported. This was the key finding of the study because it showed that governance was the ESG dimension most closely associated with financial performance among PN17 and GN3 companies. In this context, stronger governance may improve board oversight, internal control, transparency, accountability, and restructuring discipline. These governance-related improvements may help reduce agency problems, improve decision-making, restore stakeholder confidence, and support recovery efforts. As a result, governance may have a more immediate relationship with accounting-based financial performance compared to environmental and social initiatives.

The positive governance finding was consistent with past studies which suggest that governance mechanisms can improve company performance through accountability, transparency, risk mitigation, ethical conduct, and strategic decision-making. Doni et al. (2019) found that accountability and transparency can reduce costs and risks, while Ismail et al. (2019) highlighted the role of board-related governance in supporting risk mitigation. Saygili et al. (2021) also showed that ethical conduct and strategic decision-making were important governance elements that can support sustainable growth and investor confidence. In relation to the present study, these findings supported the argument that governance was particularly important for financially distressed companies because governance quality can signal credible recovery and stronger management discipline.

However, the insignificant environmental and social findings differed from several past ESG-CFP studies. For example, Raja Adzrin et al. (2021) found that environmental practices such as carbon reduction improved market value, while Pinheiro et al. (2023) showed that waste management and fair labour

practices were associated with financial stability and revenue-related outcomes. Nirino et al. (2021) also found that community engagement attracted investors, while Shalbayeva et al. (2023) linked workforce diversity with employee morale. The difference between those findings and the present study may be explained by the financially distressed setting of PN17 and GN3 companies. Unlike financially stable companies, distressed companies may prioritize short-term survival, liquidity, debt management, and restructuring. Therefore, environmental and social initiatives may remain important, but their financial effects may take longer to appear and may not be immediately captured by ROA and ROI.

H4 was also not supported because the composite ESG score was positive but insignificant for both ROA and ROI. This finding was important because it showed that combining environmental, social, and governance dimensions into one overall ESG score may hide important differences between the pillars. The result differed from studies such as Alkaraan et al. (2022), Chen et al. (2023), Qureshi et al. (2021), and Huang (2019), which suggested that combined ESG practices can improve market perception, investor confidence, operational efficiency, and financial performance. In the present study, the insignificant composite ESG score suggested that ESG should not be treated as a single uniform construct in distressed companies. Instead, each ESG pillar should be examined separately because governance appeared to carry the strongest financial signal in the PN17 and GN3 context.

For the control variables, H5 was partially supported. Revenue growth was positive and significant, showing that operational recovery remained an important driver of financial performance among PN17 and GN3 companies. This was consistent with the nature of financially distressed companies, where the ability to rebuild revenue can improve liquidity, support asset utilization, and strengthen confidence in recovery. Company size showed a negative relationship in several models, suggesting that larger distressed companies may face greater restructuring complexity, heavier cost structures, and slower turnaround processes. Meanwhile, company age, debt, insider shareholdings, and board size did not show significant relationships with CFP. This indicated that general company characteristics alone may not be enough to explain financial recovery unless they are supported by effective governance and operating improvement.

The findings were also consistent with the Stakeholder Theory and the Legitimacy Theory. From the perspective of the Stakeholder Theory, PN17 and GN3 companies need to rebuild trust with investors, creditors, regulators, employees, and other stakeholders. Governance practices were directly related to this process because they demonstrated accountability, transparency, and responsible decision-making. From the perspective of the Legitimacy Theory, companies under financial distress need to regain legitimacy by showing that they are capable of restructuring, complying with listing expectations, and operating responsibly. The significant governance finding suggested that governance-related ESG practices may act as a stronger legitimacy signal than environmental or social practices in the short run.

Overall, the findings addressed the research objectives and research questions by showing that the ESG-CFP relationship among PN17 and GN3 companies was pillar-specific. The study did not find evidence that environmental, social, or composite ESG scores were significantly related to CFP. Instead, governance was the only ESG dimension that consistently showed a positive and significant relationship with ROA and ROI. This strengthened the overall contribution of the study by showing that, in financially distressed companies, governance-related ESG information was more decision-useful for evaluating performance, risk, recovery potential, and management discipline. Therefore, the study contributed to ESG-CFP literature by showing that the financial relevance of ESG depended on company context, and that governance played a central role in the recovery setting of Malaysian PN17 and GN3 companies.

H5 was partially supported. Revenue growth showed a consistent positive and significant relationship with CFP, indicating that operating recovery remained an important driver of financial performance among PN17 and GN3 companies. Company size showed a negative relationship with CFP in several models, suggesting that larger distressed companies may face higher restructuring costs, operational complexity, or asset inefficiency. However, company age, debt, insider shareholdings, and board size were not statistically significant. Overall, the control variable results suggested that financial performance among distressed companies was more strongly linked to operating recovery than to general company characteristics.

Table 2. Descriptive Statistics of CFP for the Observation Period from 2015 to 2024

Variables	Mean (%)	Median (%)	Min (%)	Max (%)	Std. Dev.	Skewness	Kurtosis	Jarque-Bera
ROA	-5.44	-3.4	-29.6	4.98	8.28	-1.08	3.45	146.84
ROI	-16.48	-9.78	-128.03	27.8	26.49	-1.36	4.96	340.95

Source: Authors' calculations.

Table 3. Descriptive Statistics of IVs for the Observation Period from 2015 to 2024

Variables	Mean	Median	Min	Max	Std. Dev.	Skewness	Kurtosis	Jarque-Bera
EScore	2.58	3	0	5	1.68	-0.06	1.78	45.41
SScore	2.99	3	0	6	1.96	-0.04	1.78	45.13
GScore	2.6	3	0	5	1.71	-0.03	1.74	48.63
ESGScore	8.18	8	0	16	3.16	0	2.48	8.2
Company size (RM)	279,000,000.00	202,000,000.00	196,568.90	1,740,000,000.00	262,000,000.00	2.12	9.14	1,694.57
Company age (years)	34.26	30	14	80	13.75	0.79	3.38	80.47
Revenue Growth Rate	1,480,000,000.00	1,100,000,000.00	54,668,100.00	7,180,000,000.00	1,270,000,000.00	1.53	5.36	455.4
Debt	0.89	0.88	0.4	1.49	0.26	0.36	2.37	28.07

Variables	Mean	Median	Min	Max	Std. Dev.	Skewness	Kurtosis	Jarque–Bera
Insider shareholdings	25,968,390.00	26,148,999.00	1,112,641.00	49,971,251.00	14,371,946.00	-0.03	1.75	47.41
Board size	8.42	8	5	12	2.31	0.09	1.74	49.33

Source: Authors' calculations.

Table 4. Summary of Research Objectives, Research Questions and Hypotheses Decisions

RO/RQ/H	Result	Decision	Explanation
RO1/RQ1/H1: Environmental ESG practices and CFP	EScore is not significant for ROA and ROI	Not supported	Environmental ESG practices do not show a statistically significant relationship with CFP among PN17 and GN3 companies.
RO2/RQ2/H2: Social ESG practices and CFP	SScore is not significant for ROA and ROI.	Not supported	Social ESG practices do not show a statistically significant relationship with CFP among PN17 and GN3 companies.
RO3/RQ3/H3: Governance ESG practices and CFP	GScore is positive and significant for both ROA and ROI.	Supported	Governance ESG practices are consistently associated with stronger financial performance among distressed companies.
RO4/RQ4/H4: Overall ESG practices and CFP	ESGScore is positive but not significant for ROA and ROI.	Not supported	The composite ESG score does not significantly explain CFP, suggesting that aggregation may hide pillar-level differences.
RO5/RQ5/H5: Company-specific control variables and CFP	Revenue growth is positive and significant. Company size is negative and significant or marginal. Other control variables are not significant.	Partially supported	CFP among distressed companies is more strongly related to operating recovery indicators, especially revenue growth, while other control variables show limited statistical support.

Source: Authors' compilation.

Table 5. Panel Regression Result Based on Hausman Test Model Selection

IVs	ROA (E, S, G)	t-stat (p-value)	ROA (ESG)	t-stat (p-value)	ROI (E, S, G)	t-stat (p-value)	ROI (ESG)	t-stat (p-value)
Main IVs								
EScore	-0.0831	-0.4238 (0.6718)	–	–	-0.5253	-0.8255 (0.4094)	–	–
SScore	-0.1628	-0.9675 (0.3337)	–	–	-0.4578	-0.8387 (0.4019)	–	–
GScore	0.5092	2.6873 (0.0074)	–	–	1.7118	2.7848 (0.0055)	–	–
ESGScore	–	–	0.0622	0.6007 (0.5482)	–	–	0.1741	0.5183 (0.6045)
Other IVs								
Company size	-197.9113	-5.1780 (0.0000)	-198.789	-5.1796 (0.0000)	-247.4164	-1.9957 (0.0464)	-249.1316	-1.9999 (0.0461)
Company age	NA	NA	NA	NA	NA	NA	NA	NA
Revenue growth rate	10.1836	5.4078 (0.0000)	10.1275	5.3541 (0.0000)	18.2939	2.9947 (0.0029)	18.069	2.9426 (0.0034)
Debt	1.0487	0.7000 (0.4841)	0.8218	0.5474 (0.5843)	2.4478	0.5038 (0.6146)	1.7464	0.3583 (0.7202)
Insider shareholdings	0.0195	0.0214 (0.9829)	-0.0207	-0.0222 (0.9823)	-0.5918	-0.1961 (0.8445)	-0.7102	-0.2342 (0.8149)

IVs	ROA (E, S, G)	t-stat (p-value)	ROA (ESG)	t-stat (p-value)	ROI (E, S, G)	t-stat (p-value)	ROI (ESG)	t-stat (p-value)
Board size	0.1577	1.1027 (0.2706)	0.1757	1.2262 (0.2206)	0.3418	0.7368 (0.4615)	0.4134	0.8886 (0.3746)
Constant (C)	84.6495	3.3159 (0.0010)	86.4377	3.3743 (0.0008)	47.3319	0.5716 (0.5678)	52.1542	0.6272 (0.5308)
Model statistics								
R ²	0.0889		0.0777		0.064		0.0512	
F-statistic	0.7912		0.7035		0.5551		0.45	
p-value (F-stat)	0.905		0.9736		0.9993		1	
Durbin–Watson	1.6486		1.6578		1.7243		1.741	

Source: Authors' calculations.

Table 6. Panel Regression Result Based on Fixed Effect Redundancy Test

IVs	ROA (E, S, G)	t-stat (p-value)	ROA (ESG)	t-stat (p-value)	ROI (E, S, G)	t-stat (p-value)	ROI (ESG)	t-stat (p-value)
Main IVs								
EScore	-0.07083	-0.3936 (0.6940)	–	–	-0.40296	-0.6884 (0.4914)	–	–
SScore	-0.14631	-0.9471 (0.3439)	–	–	-0.37464	-0.7457 (0.4561)	–	–
GScore	0.40586	2.3035 (0.0216)	–	–	1.41856	2.4750 (0.0136)	–	–
ESGScore	–	–	0.03879	0.4053 (0.6854)	–	–	0.14806	0.4754 (0.6347)
Other IVs								
Company size	-183.1685	-5.2569 (0.0000)	-183.3912	-5.2579 (0.0000)	-211.7224	-1.8715 (0.0617)	-211.8223	-1.8661 (0.0624)
Company age	-0.00275	-0.1236 (0.9016)	-0.00542	-0.2433 (0.8078)	-0.01865	-0.7967 (0.7967)	-0.02773	-0.3823 (0.7024)
Revenue growth rate	9.0426	5.2479 (0.0000)	9.01747	5.2188 (0.0000)	13.89376	4.2793 (0.0000)	13.78337	2.4512 (0.0145)
Debt	0.16842	0.1349 (0.8927)	0.02559	0.0205 (0.9837)	-2.21677	-0.5459 (0.5853)	-2.65372	-0.6524 (0.5144)
Insider shareholdings	-0.03368	-0.0395 (0.9686)	-0.10406	-0.1215 (0.9037)	-0.46335	-0.1666 (0.8677)	-0.69081	-0.2496 (0.8035)

IVs	ROA (E, S, G)	t-stat (p-value)	ROA (ESG)	t-stat (p-value)	ROI (E, S, G)	t-stat (p-value)	ROI (ESG)	t-stat (p-value)
Board size	0.1759	1.3418 (0.1801)	0.18891	1.4394 (0.1505)	0.33363	0.7835 (0.4342)	0.38525	0.9020 (0.3673)
Constant (C)	82.46646	3.8035 (0.0001)	83.64314	3.8764 (0.0001)	57.77505	0.8251 (0.4096)	61.11054	0.8703 (0.3844)
Model statistics								
R ²	0.05143		0.04332		0.02042		0.01087	
F-statistic	4.33702		4.67068		1.66722		1.13334	
p-value (F-stat)	0		0		0.0931		0.34	
Durbin–Watson	1.57927		1.5925		1.64632		1.66613	

Source: Authors' calculations.

5. CONCLUSION AND PRACTICAL IMPLICATIONS

This study concluded that the relationship between ESG practices and corporate financial performance among Malaysian PN17 and GN3 companies differed across ESG dimensions. The environmental and social pillars did not show significant relationships with ROA or ROI. In contrast, the governance pillar showed a positive and significant relationship with both financial performance measures. The composite ESG score was also insignificant, suggesting that aggregate ESG measurement may hide the specific role of governance in distressed companies. Therefore, the findings supported H3 but did not support H1, H2, and H4.

For the control variables, revenue growth was consistently positive and significant, while company size showed a negative relationship in several models. This indicated that operational recovery remained important in explaining CFP among financially distressed companies. H5 was therefore partially supported. Other control variables, including company age, debt, insider shareholdings, and board size, did not show significant relationships with CFP. These results suggested that the financial performance of PN17 and GN3 companies was more closely associated with governance quality and operating recovery indicators than with broader ESG aggregation or general company characteristics.

The main contribution of this study was that ESG did not operate as a single uniform construct among financially distressed companies. In the PN17 and GN3 context, governance appeared to be more decision-relevant than environmental, social, or composite ESG scores. This finding was important because distressed companies needed to restore credibility, improve monitoring, strengthen internal control, and show recovery discipline. Governance-related ESG information can therefore be useful not only for external reporting, but also for internal management accounting practices such as performance evaluation, risk management, capital budgeting, and recovery monitoring.

These conclusions have practical implications for regulators, management, and investors. For policymakers and regulators, the findings support the need to make governance disclosure more decision-useful for distressed companies, particularly disclosures related to board supervision, internal controls, accountability, and restructuring governance. Strengthening pillar-level disclosure can also help stakeholders understand which ESG dimensions are improving instead of depending only on a single composite ESG figure that may conceal significant variations (Abdi et al., 2022). As ESG capability gaps remain one of the limitations in some ASEAN contexts, policy support that improves reporting consistency and the practical use of ESG information can also increase the usefulness of ESG disclosure (Kurniawan & Rokhim, 2023).

These conclusions also speak directly to how distressed companies design and use management accounting and governance systems during recovery. Since governance is the only ESG pillar with a measurable short-run association with ROA and ROI, governance-related ESG information is likely to be more decision-useful for internal management processes than a single composite ESG score. In practice, distressed companies should treat governance metrics as operational control inputs, not only as external reporting indicators. This includes strengthening management performance evaluation by embedding governance-linked KPIs into internal scorecards and accountability routines, improving capital budgeting by applying governance checks for project approval, documentation, and post-audit reviews, and reinforcing risk

management by linking governance indicators to risk registers, internal control testing, and escalation thresholds monitored by management and the board. In other words, the governance pillar can be translated into management control mechanisms that protect cash, reduce control failures, and improve execution discipline. This is consistent with the result that governance appears earlier in accounting outcomes than environmental or social initiatives.

To investors, the outcomes imply that composite ESG scores should not be used as the only basis for evaluating distressed companies. It may be more informative to separate environmental, social, and governance dimensions because governance provides the strongest performance-related signal in this setting. Governance trends can also help investors assess the quality of restructuring, oversight, and execution capacity. At the same time, investors should read ESG information together with key recovery indicators such as revenue growth, since operating recovery remains central to turnaround performance (Chen and Xie, 2022; Zeidan, 2022; Panagopoulos and Tzionas, 2023).

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7. CONFLICT OF INTEREST STATEMENT

The authors agree that this research was conducted in the absence of any self-benefits, commercial or financial conflicts and declare the absence of conflicting interests with the funders.

8. AUTHORS' CONTRIBUTIONS

Asna Syakirah Sahabuddin: Conceptualization, methodology, formal analysis, investigation, data curation, and writing—original draft; **Norliza Che-Yahya:** Supervision, validation, and writing—review and editing.

9. DATA AVAILABILITY/SUPPLEMENTARY MATERIALS

The dataset analysed during the current study is available from the corresponding author upon reasonable request. The underlying company information was obtained from publicly available annual reports and Bursa Malaysia sources.

10. ETHICS STATEMENT

The authors declare that this study did not involve human participants, animals, or experimental procedures. The study relied exclusively on secondary data obtained from corporate annual reports and relevant financial databases.

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