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ESG Disclosure and Firm Performance: Evidence after the Revision of Malaysian Code of Corporate Governance

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Abstract

Environmental, Social and Governance (ESG) is one of the vital concerns in the current corporate environment. Firms must be transparent on ESG issues to create sustainable value and fulfill stakeholders' rights. Since the late 2000s, many countries, including ASEAN countries, have mandated ESG disclosure to increase transparency. This study aims to examine the effect of ESG disclosure on firm performance measured by profitability indicators among Malaysian public listed firms with the data collected from 2017 after the revision of the Malaysian corporate governance code from 'comply and explain' to 'apply and explain' until 2021. The data was gathered from the Thomson Reuters Eikon Database, which consists of ESG scores and firm profitability through ROA and ROE. Using OLS regression method, the results indicate that ESG disclosure positively and significantly affects ROA and ROE. While, the results of each individual pillar of ESG (environmental, social and governance) revealed that only ROA was strongly impacted by all the pillars, whereas ROE was only affected by the social pillar. Further analysis revealed firms with higher ESG disclosure perform superior to those with lower ESG disclosure. This study helps to enrich the knowledge of ESG disclosure and its effect on firm performance. Particularly this study will help Malaysian firms to strategies on ESG disclosure to realise its impact on performance. Besides, capital market regulators will also have a direction to impose regulations pertinent to ESG.

Keywords: ESG disclosure, Firm's performance, CG Code, Legitimacy Theory.

Introduction

The evolution of environmental, social and governance (ESG) in today's corporate environment, has prompted significant attention from practitioners and regulators (Atif et al.,

2022). Firms are also expected to improve their non-financial transparency through ESG disclosure in order to improve their performance and gain more support from stakeholders (Zawawi at al., 2023; Gholami et al., 2022). In addition, the need for ESG increased as a result of an increase in sustainability investments, which reached $20.6 billion in the United States in 2019 which is more than threefold increase from the previous year (Morningstar Inc, 2020). ESG safeguards stakeholders' interests, as the firm is obligated to act in its best interest through good governance, environmental and social rights preservation. To quantify ESG performance, businesses seek to determine the most appropriate method for obtaining an ESG score from rating agencies or third parties. This score is significant since it will improve their market reputation and competitive advantage. Even though these scores are not standardized because different agencies employ different scoring methods, firms strive for a higher rating score from the agency (Svanberg et al., 2022; Yoo & Managi, 2022). Therefore, all of the above factors will push ESG to gain momentum and grow in popularity due to the necessity for firms to attract investors and restore their confidence to invest in them.

With the introduction of the FTSE good index in 2014 and the Bursa Malaysia Sustainability reporting framework in 2016, Malaysian-listed firms have increased the voluntary disclosure of ESG. Malaysia is an exceptional example of sustainability disclosure, as evidenced by the fact that Malaysian listed firms scored the best on the voluntary disclosure index (8/10) in ASEAN according to FTI consulting survey in 2019, in addition to adhering to practically all global ESG standards (SSE, 2021). The Corporate Governance (CG) code also plays a vital role as a specific section on sustainability reporting is part of the requirement to be fulfilled by public listed firms. As public listed firms are expected to comply with CG Code, the Malaysian CG code has shifted from "comply and explain" to "apply and explain" in 2017 to increase compliance. "Apply and Explain" is similar to a mandatory in which it is presumed that firms are already compliant, and they must explain how they meet the standards. However, under “Comply or explain,” firms still have the option of complying with the code or deviating from it, as long as they offer justification for not complying (Seidl et al., 2013).

The issue might be the firm's desire to meet minimum regulatory requirements rather than increase compliance and boost the firm’s value (Sadiq et al., 2020). Besides, ESG disclosure may have a negative impact on a firm's value if investors view them as "cheap talk."(Chouaibi et al., 2022). Cheap talk or Greenwashing has an effect on society and the economy as a whole. It will undermine trust and reduce a firm's credibility because society may believe that the firms are making false or misleading claims about ESG in their reporting. The above arguments lead to the question of how ESG disclosure may affect a firm's financial performance. Therefore, the study's objective is to assess how ESG disclosure affects performance among Malaysian public listed firms.

Using multiple proxies, numerous studies have examined the relationship between ESG disclosure and firm performance in various settings, from developed to emerging economies. However, few studies examine the impact of ESG disclosure on performance following changes in CG codes to determine whether firms put their total commitment to comply or merely fulfilling a basic requirement of disclosure standard. Therefore, this study will concentrate on Malaysian public listed firms, with data collected from 2017 to 2021, following the implementation of the CG code in 2017. This study will assist Malaysian public listed firms in increasing compliance with ESG disclosure to improve performance.

Literature Review

ESG In Malaysia

Malaysia has been an essential sample for ESG research since Malaysian firms started implementing their first Corporate Social Reporting (CSR) Framework in 2006 (Mohammad & Wasiuzzaman, 2021). Besides, Malaysia is considered an emerging market that is anticipated to be the key driver of future global economic growth (Shakil et al., 2019). The requirement to put ESG as part of the disclosure inside CG code was started in the Malaysian Code of Corporate Governance 2012 (MCCG, 2012), which recommends that directors fully disclose the firm's policies and implementation of ESG in its annual report. Followed by, On April 26, 2017, the Securities Commission of Malaysia published the updated Malaysian Code of Corporate Governance (MCCG, 2017). This updated CG code emphasizes ESG by requiring firms to disclose relevant ESG information and adhere to ESG reporting standards such as the Global Reporting Initiative (GRI) and the Sustainability Reporting Guidelines (MCCG, 2017). Given that the updated MCCG 2017 code is now subject to the apply and explain concept, the firm is anticipated to enhance ESG disclosure to comply with the code.

Few studies on the impact of ESG on firm performance have been conducted in Malaysia, with inconclusive results. For instance, Mohammad & Wasiuzzaman (2021) found that increasing ESG disclosure will improve firm performance among Malaysian public listed firms. This positive association was due to better access to financing and increased ESG investing. Moreover, with the introduction of the FTSE4 Good Bursa Malaysia Index in 2014 has encouraged the firm to disclose ESG. Furthermore, Qoyum et al. (2021) examine ESG disclosure as individual pillars and found that environmental and social pillars significantly and favorably affect performance among Indonesian and Malaysian Islamic firms but not governance pillars. This is because Islamic firms have taken a strategy to improve performance by integrating Islamic values into ESG.

In contrast, Md Nor et al. (2016) indicate no association between environmental disclosures and firm performance in Malaysian public listed firms. The author mentioned that the possible reason would be low environmental disclosure during that sample period. The same finding is presented by Atan et al. (2018), who found no correlation between the performance of public listed firms and their ESG disclosure. This is due to the short study period, which may not yield meaningful results, as stakeholders do not yet have confidence in ESG initiatives by the firms. From here, we can see that Malaysia requires more ESG studies, which will be helpful for the capital market and regulators seeking to enhance ESG disclosure and implementation among Malaysian public listed firms.

Legitimacy Theory

The study incorporates the Legitimacy theory to better understand the relationship between ESG disclosure and firm performance. According to legitimacy theory, a business depends on social approval; hence, businesses must explore strategies to demonstrate their legitimacy and market relevance to be accepted by stakeholders (DiMaggio & Powell, 1983; DasGupta, 2022). Numerous researches in the field of ESG employs legitimacy theory as an underlying theory to explain the relationship between ESG disclosure and firm performance (Khan, 2022). According to DasGupta (2022), who studied ESG with sample firms from around the world, firms will seek new strategies to improve their performance through ESG disclosure. Besides, to demonstrate that the business is legitimate, firms will therefore provide ESG disclosure to enhance their reputation among stakeholders (Sadiq et al., 2020). It is supported by Lorena (2018), who adds that when a firm discloses its ESG activities, its reputation improves because customers become more confident and gain stakeholder trust.

Using Asian public listed firms, Abdul Rahman and Alsayegh (2021) demonstrate that the firms' existence on the market is legitimated when they justify their existence through ESG disclosure. This is true because ESG is one of the most vital concerns for businesses today. In his study of highly sensitive industries, Shakil (2021) also discovered that firms with good ESG disclosure perform better and have lower risk than those without ESG disclosure. Furthermore, ESG disclosure enables firms to demonstrate to investors what they have done for stakeholders and what benefits they have provided. Besides, firms can restore investor confidence through ESG disclosure after being affected by controversies or ESG issues surrounding the firms. Therefore, increasing the ESG strategies including ESG disclosure will help increase performance.

ESG and Firm Performance

ESG comprises three fundamental pillars of sustainability, namely environmental (E), social (S), and governance (G). Environmental concerns encompass a range of issues, such as climate change, waste minimization, and pollution mitigation. The field of Social is primarily focused on the provision of employee benefits and welfare. While shareholder rights and corporate risk result in establishing Governance mechanisms (Armstrong, 2020). ESG is an extension of CSR that includes additional governance pillars (Gerard, 2019). According to Chen (2020), ESG indicates that the firm is socially and environmentally conscious. Past research has demonstrated that ESG may improve a firm's financial condition, sustain consumer loyalty, enhance its reputation, and provide a competitive advantage (Buallay, 2021; Wong et al., 2020; Alsayegh et al., 2020).

Firms are obligated to improve transparency through ESG disclosure due to stakeholder expectations, notably those of investors. ESG disclosure contributes to the non-financial aspects of a firm's reporting by publishing data on climate change, human rights, and social responsibility (Lagasio & Cucari, 2019). It is believed that firms with ESG disclosure can attract investors and have a more significant amount of capital than those without (Li et al., 2018). ESG disclosure encourages firms to become more sustainable by enabling firms to analyze ethical and sustainable practices while maximizing financial performance (Jonsdottir et al., 2021). Therefore, this will help to achieve sustainable countries as less harmful activities to the environment, such as pollution and deforestation, better social and institutional environment (Buallay, 2018). Numerous rating agencies, such as Bloomberg and Thomson Reuters assign firms a score based on ESG disclosure (Alareeni & Hamdan, 2020). Due to the increased availability of data, researchers are increasingly turning to third-party scores to assess ESG disclosure. A large number of empirical studies have been conducted to investigate the relationship between ESG disclosure and firm performance, with varying results. As supported by Fatemi et al. (2018), the empirical literature on the effects of ESG on financial performance does not produce unequivocal results.

Recent studies conducted in both developed and developing nations demonstrate a significant (positive, negative, and mixed) correlation between ESG disclosure and firm performance. Past studies showing a significant relationship are presented in Table 1.

Table 1:

Past Studies Showing ASignificant Relationship Between ESG And Firm Performance

Authors (Year)	ESG Proxy	FP Proxy	Sample Period	Country	Findings

(Chouaibi et al., 2022)	Thomson Reuters ESG score	ROA, ROE, Tobin's Q market-to-book value, and asset turnover	2005 - 2019	UK & Germany	Positive
(Zhao et al., 2018)	Sustainability index	ROCE (return on capital employed)	2007 - 2016	China	Positive
(Albitar et al., 2020)	Bloomberg ESG score	ROA and ROE	2009-2018 exclude 2013	UK	Positive
(Alareeni & Hamdan, 2020)	Bloomberg's ESG scores	ROA, ROE and Tobin's Q	2009 - 2018	US	Positive
(Ademi & Klungseth, 2022)	MSCI ESG rating	ROCE and Tobin's Q	2017–2020	US	Positive
(Giannopoulos et al., 2022)	Thomson Reuters ESG score	ROA and Tobin's Q	2010 -2019	Norway	Positive
(Saygili et al., 2022)	Environmental Disclosure Score	ROA and Tobin's Q	2007-2017	Turkey	Negative
(Duque-Grisales & Aguilera-Caracuel, 2021)	Thomson Reuters ESG score	ROA	2011 - 2015	Latin America	Negative
(Garcia & Orsato, 2020)	Thomson Reuters ESG score	ROA and Free cash flow	2007 -2014	Many Nations (mainly the US)	Mixed
(Kalia & Aggarwal, 2022)	Thomson Reuters ESG score	ROA and ROE	2020	Many Nations (mainly US and UK)	Mixed

Hypotheses Development

Using data from United Kingdom and Germany, Chouaibi et al. (2022) discovered a significantly positive relationship between ESG and firm performance. This positive relationship was portrayed as the result of a more significant commitment to socially responsible practices and the use of ethical behaviour. This finding was supported by Albitar et al. (2020), who concluded that firms in the UK consider ESG disclosure as a strategy for improving firms' image and reputation with the expectation of long-term value creation. While in China, Zhao et al. (2018) also discovered a positive and statistically significant relationship due to standards and authority enforcement. Moreover, Alareeni and Hamdan (2020) and Ademi and Klungseth (2022), who conducted their research in the United States, discovered that the significant and positive outcome is a result of firms' use of ESG disclosure as a strategy to attract investors and create product value. The same significant and positive effect can be found in the Norwegian study of Giannopoulos et al. (2022).

In contrast to the aforementioned result for developed countries, Saygili et al. (2022) found a significantly negative relationship between ESG and firm performance in Turkey-listed firms. Similar findings are made in another emerging market in Latin America, where Duque-Grisales and Aguilera-Caracuel (2021) highlight the negative relationship caused by ESG not being executed appropriately and the lack of institutional support. However, when developed and developing countries are combined, Garcia and Orsato (2020) highlight a mixed outcome. The outcome is negative for developing nations and positive for developed nations. Therefore, it is consistent with the initial findings, which apply to developed and developing countries. This result was confirmed by Kalia and Aggarwal (2022) research on developed and emerging markets, where the difference is due to different levels of market development. Furthermore, based on the preceding data, we can conclude that the findings in many developing countries are mixed, whereas it reveals a favorable relationship in developed countries. The possible explanation could be related to the country's efforts to adopt rules that encourage and make ESG disclosure mandatory.

Even though previous research has found a significant association between ESG and performance, other studies have also found an insignificant relationship. In their study of 53 countries, El Ghoul and Karoui (2020) showed no significant relationship between environmental disclosure and performance. Kalia and Aggarwal (2022) found that the association between ESG and performance in developing countries is either insignificant or unfavorable. This is supported by Gholami et al. (2022) in their study of Australian firms, which found that the insignificant outcome was due to firms lacking resources to apply ESG due to factors such as small firms. Velte (2017) also observed no significant association between ESG and Tobin's Q. The lack of significance could be due to the small number of observations. Farooq (2015) discovered that ESG disclosure does not significantly affect firm performance in areas with greater information asymmetries. Thus, based on the above conflicting result, it is necessary to examine ESG disclosure's influence on performance to comprehend its relationship better.

The link between ESG and firm performance was identified after reviewing the theoretical and empirical evidence. Some claim that ESG is helpful for performance, while others argue that it is insignificant. These inconsistent findings raised the question of whether ESG truly affects performance. Besides, past scholars also highlight the importance of analyzing each pillar individually (Buallay, 2018; Drempetic et al., 2020; Giannopoulos et al., 2022). Based on the above, the following hypotheses can be developed for this study:

***H1**: Environmental, Social and Governance disclosure significantly affects firm performance among Malaysian public listed Firms.*

***H1a:** Environmental disclosure significantly affects firm performance among Malaysian public listed Firms.*

***H1b**: Social disclosure significantly affects firm performance among Malaysian public listed Firms.*

***H1c**: Governance disclosure significantly affects firm performance among Malaysian public listed Firms.*

Methodology

In this section, the discussion on the sample of the study is presented first. Followed by methodology, where the study's variables, measurements and models are described.

Sample

The population of this study consist of public listed firms in Malaysia in which their score is available in Thomson Reuters Database. This study excludes banking and financial institution due to different regulation and high volatility. The final sample comprises 42 firms that were assigned an ESG score consistently for five years from 2017 to 2021. The year 2017 was chosen because the "apply and explain" concept of MCCG was implemented in 2017. The data on the ESG scores and financial data were downloaded from Thomson Reuters Eikon Database. Further, the final sample can be classified into nine industries. Table 1 illustrates the distribution of 42 collected firms according to the type of industries.

Table 2:

Distribution of Firms by Industries

Type of industries	Number of firms	No. of Observations
Basic Materials	4	20
Consumer Cyclical	5	25
Consumer Non-Cyclical	9	45
Energy	5	25
Healthcare	3	15
Industrials	6	30
Real Estate	3	15
Technology	4	20
Utilities	3	15
Total	**42**	**210**

Variables And Measurement

Dependent variables

This study measures firm performance using two widely used performance proxies: Return on assets (ROA) and return on equity (ROE). ROA is commonly used in the literature to examine the effects of ESG on firm performance (Velte, 2017; Kim & Li, 2021; Fatemi et al., 2018; Duque-Grisales & Aguilera-Caracuel, 2021; SokHun et al., 2023). This ratio can be used to analyse and compare the performance of firms in the same industry over time (Garcia et al., 2017). ROE is another indicator of its overall financial performance used by prior research (Baran et al., 2022; Alareeni & Hamdan, 2020; De Lucia et al., 2020; Bunea et al., 2019; Buallay, 2018). ROE measures firms' performance in maximizing shareholder return (Febrianto et al., 2022).

Independent variables

The independent variables are the total ESG score and the individual Environmental, Social, and Governance score (Halid et al., 2023). The score is derived from the Thomson Reuters Eikon database, which displays each score according to the used parameter. Thomson Reuters ESG Scores (2017) uses 57 distinct parameters to establish an environmental score disclosure for Environmental disclosure score. This category includes activities such as pollution control and the use of renewable energy. While for the social score, 60 indicators provide information on the policies and programs implemented by businesses in relation to health, safety, workplace diversity, and other categories. As for the governance score, 48 indicators measure the leadership team's transparency with stakeholders, such as the completion of

sustainability reports and minority shareholder rights. The total ESG score was calculated as the sum of each individual score. The score has a minimum value of 0 and a maximum of 100.

Control variables

Our model used the firm size and debt ratio as control variables. Size is another crucial factor that can affect performance. In the literature, size is widely employed as a control variable to investigate the effects of ESG on firm performance (Aydomuş et al., 2022; Oprean-Stan et al., 2020; Wasiuzzaman et al., 2022). The debt ratio assesses a firm's financial structure and reflects its riskiness. It significantly influences the firm's financial performance (Zhao et al., 2018). Table 3 below shows the variables and the explanation on measurement.

Table 3:

Summary Of Variables

Dependent Variables	**Explanation**	**Sources**
ROA	Net Profit/ Total assets	Eikon Datastream
ROE	Net Profit/ Total equity	Eikon Datastream
Independent Variables	**Explanation**	**Sources**
ESG	Environmental, Social and Governance Performance Score	Eikon Datastream
ED	Environmental disclosure score	Eikon Datastream
SD	Social disclosure score	Eikon Datastream
GD	Governance disclosure score	Eikon Datastream
Control Variables	**Explanation**	**Sources**
SIZE	Measured by natural logarithm of total assets	Eikon Datastream
DR	Leverage/ Total assets	Eikon Datastream

Equation Model

The OLS regression method is used to investigate this study's research objectives. The data consists of 42 public listed firms over five years. To investigate how ESG affects firm performance proxied by ROA and ROE among public listed firms in Malaysia, the following empirical model is developed as below:

Model 1	$ROA_{it} = \beta0 + \beta1\ ESG_{it} + \beta2\ SIZE_{it} + \beta3\ DR_{it} + \varepsilon$
Model 2	$ROA_{it} = \beta0 + \beta1\ ED_{it} + \beta2\ SIZE_{it} + \beta3\ DR_{it} + \varepsilon$
Model 3	$ROA_{it} = \beta0 + \beta1\ SD_{it} + \beta2\ SIZE_{it} + \beta3\ DR_{it} + \varepsilon$

Model 4	$ROA_{it} = \beta0 + \beta1\ GD_{it} + \beta2\ SIZE_{it} + \beta3\ DR_{it} + \varepsilon$
Model 5	$ROE_{it} = \beta0 + \beta1\ ESG_{it} + \beta2\ SIZE_{it} + \beta3\ DR_{it} + \varepsilon$
Model 6	$ROE_{it} = \beta0 + \beta1\ ED_{it} + \beta2\ SIZE_{it} + \beta3\ DR_{it} + \varepsilon$
Model 7	$ROE_{it} = \beta0 + \beta1\ SD_{it} + \beta2\ SIZE_{it} + \beta3\ DR_{it} + \varepsilon$
Model 8	$ROE_{it} = \beta0 + \beta1\ GD_{it} + \beta2\ SIZE_{it} + \beta3\ DR_{it} + \varepsilon$
Where, ROA_{it} and ROE_{it} are the dependent variables for Firm (i) in period (t), and ESG_{it}, ED_{it}, SD_{it} and GD_{it} are the independent variable "ESG score", "Environmental score", "Social score", and "Governance score" for Firm (i)in period (t). Furthermore, the control variables size and leverage are $SIZE_{it}$ and LEV_{it} for Firm (i) in period (t), and ε is the error term.	

Results And Discussion

The study's results and findings are presented in this section. The descriptive result is presented first, followed by the empirical findings. The study's regression model is then presented, indicating whether the null hypothesis should be rejected if the significance level is less than 0.1 at 90% confidence interval.

Descriptive Analysis

Table 5 shows the descriptive statistics employed for this study to measure variables. The average value for the ROA is 0.509, with ranging from -0.562 to 0.799. The average ROE is 0.181, with values ranging from -0.860 to 2.846. For the independent variable of ESG score, the mean is 57.538, with value ranging from 12.193 to 90.544. The value of ESG reveals that low ESG among the sample which is only 13%. Specifically, environmental disclosure (ED) has a mean value of 52.383, with a minimum of 3.2189 and a maximum of 90.881. Social disclosure (SD) has a mean value of 62.554, with a minimum of 23.088 to a maximum 97.397. The Government disclosure (GD) has a mean value of 54.072, with a minimum of 10.437 to a maximum 95.234. Furthermore, the control variables, the mean for firm size (SIZE) is 6.54, with a range of 5.4 to 7.397. The mean value of debt ratio (DR) is 0.508, with a range from 0.053 to 1.32. The table 4 shows that the standard deviation for all the variables is within the expected range.

Table 4:

Descriptive Statistics

	Mean	Median	SD	Min	Max	Skewness	Kurtosis

Dependent Variables							
ROA	.0509	.0338	. 121	-. 562	. 799	0.916	2.742
ROE	.181	. 0606	. 437	-. 860	2.846	2.113	3.804
Independent Variables							
ESG	57.538	58.116	13.829	13.193	90.544	-0.141	3.086
ED	52.384	53.190	18.793	3.2189	90.881	-0.350	2.660
SD	62.554	62.466	15.814	23.088	97.397	0.081	2.463
GD	54.072	54.859	20.760	10.437	95.234	-0.123	2.062
Control Variable							
SIZE	6.540	6.637	. 450	5.400	7.397	-0.499	2.776
DR	.509	.478	. 203	. 053	1.320	0.491	3.878

Notes: ROA is derived from net profit divided by total assets; ROE is derived from net profit divided by total equity; ESG derived from Environmental, Social and Governance performance Score; ED derived from Environmental disclosure score; SD derived from social disclosure score; GD derived from Governance disclosure score; SIZE derived from natural logarithm of total assets; DR derived from leverage divided by total assets.

Correlation Analysis

According to Hair (2010), the acceptable correlation value should not greater than 0.8 to reduce multicollinearity issues. As presented in Table 5 below, we can see that the dependent variables, which are ROA and ROE, and independent variables of ESG total score and individual score, as well as control variables of firm size and debt ratio are not highly correlate. However, for ESG total score and individual score the correlation is slightly high due to total score of ESG is made up of individual score of ED, SD, and GD. But the correlation value is still within the accepted level. The positive and significant correlation among variables is an early prediction that the relationships among variables are positive. However, a negative and significant correlation exists for control variables: size and debt ratio (Sharma et al., 2020).

Table 5:
Correlation Result

Variables	ROA	ROE	ESG	ED	SD	GD	SIZE	Debt Ratio
ROA	1.000							
ROE	0.560***	1.000						
ESG	0.246***	0.275***	1.000					
ED	0.212***	0.133*	0.697***	1.000				
SD	0.215**	0.249***	0.857***	0.466***	1.000			
GD	0.140**	0.191***	0.712***	0.168	0.478***	1.000		
SIZE	-0.338***	-0.330***	-0.272***	-0.122*	-0.309***	-0.134**	1.000	
DR	-0.170**	0.400***	0.127*	0.086	-0.022	0.154**	0.001	1.000

Note(s): *, ** and ***denotes the significance level of correlation at 1, 5 and 10%, respectively. ROA is derived from net profit divided by total assets; ROE is derived from net profit divided by total equity; ESG derived from Environmental, Social and Governance performance Score; ED derived from Environmental disclosure score; SD derived from social disclosure score; GD derived from Governance disclosure score; SIZE derived from natural logarithm of total assets; DR derived from leverage divided by total assets.

Regression Analysis

Tables 6 and 7 below present the OLS regression result for both proxies of performance: ROA and ROE. The results indicate that total ESG disclosure positively and significantly affects ROA and ROE. This is consistent with prior research that discovered a significant positive relationship between ESG and firm profitability (Chouaibi et al., 2022; Albitar et al., 2020). Therefore, it has been demonstrated that ESG disclosure boost company performance in which regulatory enforcement may one of the contributing factors towards the increase in disclosure that led to increase in firm performance (Zhao et al., 2018). Furthermore, ESG dislosure is able to increase the firm's reputation and customer trust, attract investors and create product value, all of which will lead to improved performance (Alareeni & Hamdan, 2020; Ademi & Klungseth, 2022). The result is also consistent with the legitimacy theory, which posits that firms' ESG strategies, including ESG disclosure, can boost firm performance, better stakeholder relationships, and legitimize their existence in the market. Therefore, the first hypothesis H1 is therefore supported. Our findings also differ from previous studies conducted in Malaysia, which showed mixed or non-significant results (Md Nor et al., 2016; Atan et al., 2018).

Furthermore, this study looked at individual Environmental, Social, and Governance pillars and found that each pillar affects performance differently. Based on Table 6, all ESG pillars positively and significantly affect ROA. While based on Table 7, only social pillars affect ROE positively and significantly. This discovery is intriguing and fascinating because it differs from previous research that examined the pillars separately. For instance, in past studies conducted by Buallay (2019) when reviewing the pillars individually, only the environmental score significantly affects ROA, indicating that firms need to pay more attention to the environment than social and governance (Yixi & Sharon, 2023). In another study, Tarmuji et al. (2016) found that only social and governance pillars significantly impact performance, but

the environment does not because environmental efforts require a huge investment. Therefore, our result showed that all pillars significantly affect ROA, demonstrating that they are all equally important. In addition, the social pillar needs further attention because it significantly impacts both ROA and ROE. In conclusion, all H1a, H1b and H1c are supported when performance is measured by ROA. However only H1b is supported when performance is measured by ROE.

For the control variable, the outcome showed that firm size and debt ratio negatively affect firm performance when measured by ROA. However, for ROE, only size is negatively and significantly affecting performance. This is consistent with previous studies that discovered a negative relationship between firm size and firm performance (Hirdinis, 2019; Niresh & Velnampy, 2014).

Table 6:
Regression Model (ROA)

	Model 1	Model 2	Model 3	Model 4
Intercept	0.5170 3.99***	0.5998 5.08***	0.5778 4.30***	0.6363 5.33***
ESG	0.0017 2.92***	-	-	-
ED	-	0.0012 2.98***	-	-
SG	-	-	0.0009 1.76*	-
GD	-	-	-	0.0007 1.94**
SIZE	-0.0771 -4.35***	-0.0851 -4.96***	-0.0814 -4.49***	-0.0868 -4.99***
DR	-0.168 -3.07***	-0.1112 -2.95***	-0.1005 -2.63**	-0.1137 -2.94***
Adj. R^2 (%)	16.59	16.73	14.41	14.68
N	210	210	210	210

Notes: Note(s): *, ** and ***denotes the significant level of correlation at 1, 5 and 10%, respectively.
ROA is derived from net profit divided by total assets; ESG derived from Environmental, Social and Governance performance Score; ED derived from Environmental disclosure score; SD derived from social disclosure score; GD derived from Governance disclosure score; SIZE derived from natural logarithm of total assets; DR derived from leverage divided by total assets.

Table 7:
Regression Model (ROE)

	Model 5	Model 6	Model 7	Model 8
Intercept	1.3345	1.7235	1.1948	1.6742
	3.08***	4.31***	2.71***	4.21***
ESG	0.0047	-	-	-
	2.40**			
ED	-	0.0014	-	-
		1.00		
SG	-	-	0.0048	-
			2.81***	
GD	-	-	-	0.0019
				1.48
SIZE	-0.2812	-0.3131	-0.2683	-0.3085
	-4.75***	-5.39***	-4.50***	-5.32***
DR	0.8204	0.8495	0.8692	0.8310
	6.44***	6.62***	6.91***	6.44***
Adj. R^2 (%)	27.88	26.23	28.61	26.65
N	210	210	210	210

Notes: Note(s): *, ** and ***denotes the significant level of correlation at 1, 5 and 10%, respectively.
ROE is derived from net profit divided by total equity; ESG derived from Environmental, Social and Governance performance Score; ED derived from Environmental disclosure score; SD derived from social disclosure score; GD derived from Governance disclosure score; SIZE derived from natural logarithm of total assets; DR derived from leverage divided by total assets.

Additional Analysis
Based on the result from Table 6, since ROA showed a positive and significant relationship with ESG disclosure, further analysis is needed to see whether those firms above or below the median score (58.12%) improve performance or fulfilling basic requirement. Table 8 shows that if the firms get a higher ESG disclosure score above the median score, they will have superior performance in, which is significant at 1%. This indicates that firms with higher ESG disclosure improve significantly compared to those below the median score, which will only improve slightly, which is only significant at 10%.

Table 8:
ESG Disclosure Score Median Analysis.

	ROA Above median ESG score (> 58.12%)	ROA Below Median ESG score (<58.12%)
Intercept	-0.2117	0.0363
	-1.99**	0.60
ESG	0.0051	0.0022
	3.52***	1.97*
SIZE	-7.25	-2.34
	-3.04***	-1.17
DR	-0.0697	-0.1822
	-1.27	-3.38***
Adj. R^2 (%)	18.29%	13.11
N	210	210

Notes: Note(s): *, ** and ***denotes the significant level of correlation at 1, 5 and 10%, respectively.
ROA is derived from net profit divided by total assets; ESG derived from Environmental, Social and Governance performance Score; ED derived from Environmental disclosure score; SD derived from social disclosure score; GD derived from Governance disclosure score; SIZE derived from natural logarithm of total assets; DR derived from leverage divided by total assets.

Conclusion

This study added to the growing literature by highlighting the potential association between ESG disclosure and firm performance in the Malaysian setting, one of the developing markets in ASEAN. Previous studies have highlighted the gap in ESG studies, primarily conducted in developed countries (Abdul Rahman et al., 2021). According to Nirino N. et al. (2021), the researcher should ought to investigate the development of ESG in Asia and other developing countries. Besides, this study focuses on one country in which the result is unique to the Malaysian case. This study examines the impact of ESG on the financial performance of public listed Malaysian firms. The data sample consists of 42 firms between 2017 and 2021. A pooled data regression model is applied to test the research objectives and hypothesis using the two most prevalent accounting proxies, ROA and ROE, as dependent variables. The results demonstrated that it is worthwhile for the firm to implement ESG, despite inconsistent findings in the past literature regarding how ESG can enhance performance. Due to the conflicting results of previous researchers, the hypotheses of this study are presented in a positive and significant manner, as ESG is expanding in Malaysia and regulation on ESG is prevalent. The results conclusively demonstrate that both ROA and ROE, two performance indicators, are significantly impacted by total ESG disclosure. This result showed that the firms had fully committed to complying with ESG rather than fulfilling basic requirements, evidenced by good performance. Therefore this relationship suggests that firms should consider ESG as one of the critical elements that could improve performance. Moreover, the results of each individual pillar revealed that ROA was strongly impacted by all of the pillars, whereas ROE was solely affected by the social pillars. The reason could be that all pillars are equally significant and help firms perform better as measured by ROA. Additionally, since it influences both performance measures, the social pillar requires extra attention. Further

analysis revealed that firms with higher disclosure scores above the median would perform noticeably better than those with lower scores below the median. This finding suggests that firms with greater ESG disclosure will outperform those with lower disclosure levels. Since this study focuses solely on Malaysian public listed firms, it benefited specifically to the Malaysian context. These results are also crucial for policymakers, such as the security commission, as they will help them implement ESG-related policies to boost ESG participation among businesses and address potential challenges.

Despite the fact that this study adds to the literature by focusing on Malaysian firms, it is noted that Malaysian firms need to put in more effort in disclosing ESG. This study has some limitations that provide an avenue for future research. Firstly, only a limited number of samples can be obtained through the database. Thus, it would be more meaningful if the data set were more extensive. As the sample is limited, this study employed pooled regression method. Therefore future studies can employ different analyses for a bigger sample. Another limitation of the study is that we focus on accounting-based measurement for the proxies of firm performance when other proxies such as Tobin's Q exist. Therefore this is an opportunity for future research to increase more samples with better proxies involving more years since ESG issues are evolving and still relevant. Besides, the emphasis on ESG issues has risen in the Malaysian Code of Corporate Governance 2021. As a result, studying the sample after 2021 could be interesting for future research. Our research provides valuable information to stakeholders to better understand how ESG influences firm performance to help their investing decisions. Additionally, assist capital market regulators in imposing regulations pertinent to ESG.

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Appendix A

Firm Name	Sector
Lynas Rare Earths Ltd	Basic Materials
Press Metal Aluminium Holdings Bhd	Basic Materials
Kuala Lumpur Kepong Bhd	Basic Materials
Petronas Chemicals Group Bhd	Basic Materials
Astro Malaysia Holdings Bhd	Consumer Cyclicals
UMW Holdings Bhd	Consumer Cyclicals
Media Prima Bhd	Consumer Cyclicals
Genting Malaysia Bhd	Consumer Cyclicals
Genting Bhd	Consumer Cyclicals
Sime Darby Bhd	Consumer Non-Cyclicals
Fraser & Neave Holdings Bhd	Consumer Non-Cyclicals
British American Tobacco (Malaysia) Bhd	Consumer Non-Cyclicals
FGV Holdings Bhd	Consumer Non-Cyclicals
Nestle (Malaysia) Bhd	Consumer Non-Cyclicals
IOI Corporation Bhd	Consumer Non-Cyclicals
Genting Plantations Bhd	Consumer Non-Cyclicals
Hap Seng Consolidated Bhd	Consumer Non-Cyclicals
PPB Group Bhd	Consumer Non-Cyclicals
Bumi Armada Bhd	Energy
Petronas Dagangan Bhd	Energy
Sapura Energy Bhd	Energy
Dialog Group Bhd	Energy
Malaysia Marine and Heavy Engineering Holdings Bhd	Energy
Hartalega Holdings Bhd	Healthcare
IHH Healthcare Bhd	Healthcare
Top Glove Corporation Bhd	Healthcare
Misc Bhd	Industrials
Capital A Berhad	Industrials
Westports Holdings Bhd	Industrials
IJM Corporation Bhd	Industrials
Malaysia Airports Holdings Bhd	Industrials
Gamuda Bhd	Industrials
UEM Sunrise Bhd	Real Estate
S P Setia Bhd	Real Estate
IOI Properties Group Bhd	Real Estate
Axiata Group Bhd	Technology
Digi.Com Bhd	Technology
Telekom Malaysia Bhd	Technology
Maxis Bhd	Technology
YTL Corporation Bhd	Utilities
Petronas Gas Bhd	Utilities
YTL Power International Bhd	Utilities