

## BEYOND THE SCORE: AN ANALYSIS OF ESG IMPACT ON PERFORMANCE IN MALAYSIAN FAMILY FIRMS

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**Abstract:** *Environmental, social, and governance (ESG) factors have gained prominence, and stakeholders have begun to place a greater emphasis on a company's performance than they had previously, with a firm's financial success being the primary criterion for evaluation. ESG disclosure is becoming increasingly popular among organizations worldwide as a result of stakeholder demands for greater openness on ESG concerns. The purpose of this study is to explore the relationship between ESG on firm performance focusing on the family firms in Malaysia. Firm performance is being measured using operational return on assets (ROA) and market capitalization through an observation of 441 listed family firms in Malaysia between 2020 and 2022. The results showed that by using market capitalization to represent firm performance, value is positively and significantly impacted by all ESG. This research highlights the significant impact of ESG score on market capitalization. The results suggest that ESG performance, as well as earnings and the choice of audit firm, are key factors influencing market capitalization. These findings have important implications for investors, stakeholders, and companies aiming to understand the drivers of market capitalization in the context of sustainability and financial performance. The research contributes to stakeholders, investors, and decision-makers, as well as regulators, legislators, and academics to better understand ESG and firm performance by using ROA and market capitalization.*

**Keywords:** *ROA, ESG, Firm Performance, family firm*

## Introduction

In recent years, investor interest in Environmental, Social, and Governance (ESG) practices has increased significantly, as ESG-compliant firms are associated with stronger governance, sustainable development, lower risk, and enhanced firm value (Jamali et al., 2017; Kumar, 2020; Mohammad & Wasiuzzaman, 2021). Prior studies show that investors tend to reward firms with strong ESG performance, while weak ESG disclosure signals higher idiosyncratic risk and poor corporate practices (Wasiuzzaman et al., 2023; Mohammad & Wasiuzzaman, 2021). In response, international initiatives such as the United Nations' sustainability agenda and local governance frameworks, including the Malaysian Code of Corporate Governance (MCCG 2012; MCCG 2021), encourage firms to disclose ESG practices to improve transparency, reputation, and long-term competitiveness (SSE, 2015; Jallai, 2020; Schramade & Schoenmaker, 2018; Zrigui et al., 2024).

Family firms are a significant contributor to economic growth and social development and play an important role in ESG-related activities due to their long-term orientation and strong sense of stewardship. Prior research suggests that family ownership positively influences environmental and social performance, as family firms tend to prioritize reputation, control, and sustainability over short-term gains (Agostino & Ruberto, 2021; Graafland, 2020; Espinosa et al., 2023). However, empirical evidence on the relationship between ESG disclosure and firm performance remains mixed, particularly in emerging markets such as Malaysia, where ESG disclosure is mandatory but reporting practices are not standardized (Mohammad & Wasiuzzaman, 2021; Wong et al., 2021; Azmi et al., 2021). This highlights the need to further examine the impact of ESG disclosure on the financial and market performance of family firms

The next chapter proceed with literature review, research methodology, data analysis and conclusions.

## Literature Review

### Institutional Setting on ESG Reporting in Malaysia

In Malaysia, CSR reporting became mandatory in 2006 and was strengthened in 2015 with the introduction of the Sustainability Framework, which requires companies to disclose their environmental, social, and governance (ESG) practices (Mohammad & Wasiuzzaman, 2021; Wong, 2019). ESG reporting provides information on firms' environmental management, employee welfare, and social and governance responsibilities, helping companies operate responsibly and transparently. Prior studies show that ESG disclosure improves corporate sustainability performance and reduces information asymmetry by providing investors with more comprehensive and reliable non-financial information (Alsayegh et al., 2020; Yen-Yen, 2019).

In ASEAN, Malaysia records a relatively high sustainability disclosure rate compared to other countries, and most of Malaysia's top public listed companies have reported their sustainability performance (Ismail et al., 2020). Mandatory ESG reporting has been found to improve both the quality and quantity of disclosures, particularly for firms with weaker ESG performance, while many Malaysian companies voluntarily enhance ESG reporting to remain competitive and support long-term sustainability (Kee et al., 2020; Krueger et al., 2021).

## Firm Performance

ESG disclosure is widely viewed as an indicator of firm success because it reflects overall organisational performance and long-term business development. Previous studies show that firms with well-managed social and environmental practices generally achieve better financial performance and higher firm value (Johari & Komathy, 2019). Evidence from Malaysian public listed companies suggests mixed results, where ESG disclosure is positively related to return on assets (ROA), earnings per share (EPS), and firm value, but shows a weak or no relationship with return on equity (ROE) and dividend per share (DPS).

Although some studies report no significant relationship between ESG disclosure and performance among regular sustainability reporters, firms with long-term ESG recognition demonstrate stronger firm value and competitive advantages (Sani et al., 2020). Overall, prior literature supports that higher ESG disclosure enhances firm performance and market valuation, as reflected by measures such as Tobin's Q and price-to-book ratio (Chauhan & Kumar, 2018; Dianawati, 2021; Mohammad & Wasiuzzaman, 2021).

## Theoretical Development

### Stakeholder Theory

Stakeholder theory (Freeman, 2001) explains sustainability as a combination of sustainability performance and sustainability disclosure, both of which aim to benefit all stakeholders. Stakeholders include employees, customers, suppliers, management, and the wider community, and firms must manage these relationships effectively to create value (Phillips et al., 2019). ESG practices reflect a company's commitment to meeting stakeholders' expectations and improving transparency, which helps strengthen governance and corporate performance (Rodríguez-Fernández et al., 2020; Abdi et al., 2021). Prior studies, including evidence from Malaysian listed companies, show that effective ESG management enhances competitiveness and long-term firm performance, supporting the relevance of stakeholder theory in explaining the ESG-performance relationship (Jasni et al., 2020; Mohammad & Wasiuzzaman, 2021).

## Hypotheses Development

### ESG and Firm Performance Using ROA

Prior studies suggest that ESG disclosure provides firms with additional benefits by reducing stakeholder concerns and enhancing corporate credibility (Ammer et al., 2020; Le et al., 2021). Evidence from the UK and Germany shows a positive relationship between ESG practices and business performance, driven by strong commitments to social responsibility and ethical behaviour, while UK firms also use ESG disclosure to enhance reputation and create long-term value (Albitar et al., 2020; Chouaibi et al., 2022). Moreover, environmental disclosure has been found to increase stock market liquidity and positively influence firm valuation, encouraging listed companies worldwide to adopt more extensive ESG reporting (Razali, 2019; Nurcahyanti & Widhianningrum, 2018). Based on this literature, the study proposes that:

**H1: There is a significant relationship between ESG scores and Firm Performance using ROA.**

### ESG and Firm Performance using Market Capitalisation

By giving more insightful information of the financial statements to the investors and other consumers, it could improve corporate governance practices and assist businesses in improving

their operations (Merza Radhi & Sarea, 2019). According to Dianawati (2021), the disclosure of corporate social responsibility has a direct effect on the value of the company, independent of both consumer and worker reaction. A company's value is heightened, and systemic risk is mitigated through its commitment to corporate social responsibility, as asserted by Albuquerque et al. (2019). Consequently, the study postulate that:

## **H2: There is a significant relationship between ESG and Firm Performance Using Market Capitalization.**

### **Research Methodology**

The population chosen is the listed family firms in Malaysia, and the sample size is 182 family firms for a period spanning over three years, beginning in 2020 and ending in 2022, with a total of 546 observations (family firms-year) after considering missing data/ unavailability of ESG score (refer Table 3.2). The final observation is 441 after excluding 105 unavailability of ESG score. The three-year time frame is selected primarily to increase the number of observations and therefore generalization. In addition, this study utilizes unbalanced panel data, where unbalanced panel datasets comprise missing values for specific time observations within particular groups.

This quantitative study relies on secondary data obtained from company annual reports, which are publicly accessible online, as well as from separate disclosures on corporate social responsibility, sustainability, governance, and environmental practices. Firms may report ESG information either as part of their annual report or as a standalone document. Using a quantitative archival approach, the study analyses historical documents from 182 family-run businesses in Malaysia. ESG data—including environmental, social, and governance information—are extracted from annual reports through content analysis, while firm performance measures are collected from the same sources.

This study considers the CG, environmental (ENV), and CSR sub-ESG scores. The study is able to identify which variable has the most influence on firm performance and which element of the ESG score is the most significant driver of enhancing firm performance as a consequence of this categorization. Return on assets (ROA) is a measure of a family firm's profitability, expressed as a percentage, indicating how efficiently a company uses its assets to generate revenue. A higher ROA reflects greater effectiveness in converting assets into profits, and comparisons are most meaningful within the same industry due to sector differences (Khoury et al., 2021). Market capitalization, or market cap, measures the total value of a company's outstanding shares by multiplying the current share price by the total number of shares.

This study also examines the Big 4, CEO duality, leverage, size and earning as the control variables. Larger firms may take advantage of economies of scale to enhance the firm performance value. Due to the economies of scale, an increase in firm size may lead to high corporate performance (Abeyrathna & Priyadarshana, 2019). The natural logarithm of a firm's total assets is used as a proxy for size.

To measure ESG impact on firm performance, the study estimates a linear regression model as follows:

$$\begin{aligned} Perfitg = & \beta_0 + \beta_1 ESG\_SCOREitg + \beta_2 ESG\_ENVIRONMENTitg \\ & + \beta_3 ESG\_SOCIALitg + \beta_4 ESG\_GOVERNANCEitg + \beta_5 BIG4itg + \\ & \beta_6 CEO\_DUALITYitg + \beta_7 LEVERAGEitg + \beta_8 SIZEitg + \\ & \beta_9 EARNINGitg + \epsilon itg \end{aligned}$$

## Results

### Descriptive Analysis

Table 1 presents the descriptive statistics for key financial, ESG, and governance variables from 2020 to 2022, based on 441 observations. Panel A shows that the mean market capitalization (MARKET\_CAP) is approximately RM1.43 million, with a high standard deviation of RM4.93 million, while the average ROA is 3.51% with a standard deviation of 12.11, indicating substantial variability across firms. Panel B reports ESG performance, where the mean ESG\_SCORE is 4.63 with a standard deviation of 13.21, and similar variability is observed for ESG\_ENVIRONMENT, ESG\_SOCIAL, and ESG\_GOVERNANCE scores. Panel C highlights corporate governance characteristics, showing that 31.1% of firms are audited by Big Four accounting firms (BIG4), and 12.5% have CEO duality (CEO also serving as board chair). Panel D summarizes other financial indicators, with an average leverage ratio (LEVERAGE) of 52.00, mean firm size (SIZE) of RM2.7 million (SD = 7.68 million), and mean earnings (EARNING) of RM87,989 (SD = 461,517), reflecting significant differences in financial profiles across the sample.

**Table 1: Descriptive Analysis (2020 – 2022, n=441)**

	Mean	Median	Maximum	Minimum	Std. Dev.
<b>Panel A: Dependent Variable</b>					
	1429922.0	252927.0	71170534.0		4931902.0
MARKET_CAP	00	00	00	14022.000	00
ROA	3.510	3.440	84.040	-184.780	12.105
<b>Panel B: Independent Variable</b>					
ESG_SCORE	4.626	0.000	77.220	0.000	13.205
ESG_ENVIRONM					
ENT	3.125	0.000	75.280	0.000	10.889
ESG_SOCIAL	5.098	0.000	86.320	0.000	14.884
ESG_GOVERNAN					
CE	5.670	0.000	83.110	0.000	16.088
<b>Panel C: Control Variables (Corporate Governance Variables)</b>					
BIG4	0.311	0.000	1.000	0.000	0.463
CEO_DUALITY	0.125	0.000	1.000	0.000	0.331
<b>Panel D: Control Variables (Financial Indicators Variables)</b>					
LEVERAGE	52.002	26.660	441.770	0.000	73.653
	2699768.0	584739.0	73863566.0		7679033.0
SIZE	00	00	00	872.000	00
		14244.00	7710327.00	716147.00	461517.40
EARNING	87988.940	0	0	0	0
OBSERVATIONS: 441					

Note: ROA (return on asset) is the earnings before interest and tax deflated by total assets. MARKET\_CAP is a market capitalization for the firms which represents the total market value of a company's outstanding shares of stock, calculated by multiplying the share price by the number of shares outstanding. Meanwhile, ESG\_SCORE reflects the company's performance in ESG\_ENVIRONMENT (Environmental), ESG\_SOCIAL (Social), and ESG\_GOVERNANCE (Governance) areas, typically based on disclosures in the annual report. BIG4 represents the established audit firm, coded as 1 if the auditor is among Big 4 companies or '0' otherwise. CEO\_DUALITY is a control variable, indicating whether the roles of CEO and Chairman of the Board are held by the same person (coded as 1) or not (coded as 0). LEVERAGE is measured as the end-of-the-year total debt divided by total assets. SIZE represent by (total asset) is to measure the firm size. EARNING represents the company's earnings, which may include net income or other relevant financial metrics. There are 182 listed family firms in Malaysia under study which represents 441 firms-year observations. \*, \*\*, and

\*\*\* denote significant at the 10%, 5%, and 1% level respectively.

### Correlation Analysis

The relationship between firm performance and ESG disclosure was examined using both Pearson and Spearman correlation analyses, as shown in Table 2. Pearson correlation measures linear associations for continuous variables, while Spearman correlation is suitable for ranked or ordinal data. Preliminary results indicate mixed relationships between firm performance and ESG scores. Most correlations among the independent variables are weak, suggesting that multicollinearity is not a concern for the regression models. Notably, strong positive correlations were observed among the ESG dimensions, ranging from 0.921 to 0.999, indicating that companies performing well in one aspect of ESG tend to perform well across other dimensions, reflecting a holistic approach to sustainability.

**Table 2: Correlation Matrix Year (2020-2022, N=441)**

Correlation	MARKET_CAP	ROA	ESG_SCORE	ESG_ENV	ESG_S	ESG_GOV	BIG4	CEO_DUALITY	LEV
<b>Panel A: Dependent Variable</b>									
MARKET_CAP	1.000	0.382 ***	0.359 ***	0.355 ***	0.359 ***	0.351 ***	0.250 ***	-0.079 *	0.234 ***
ROA	0.239 ***	1.000	0.096 **	0.100 **	0.094 **	0.094 **	-0.006	-0.007	-0.143 ***
<b>Panel B: Independent Variable</b>									
ESG_SCORE	0.258 ***	0.089 *	1.000	0.983 ***	0.999 ***	0.997 ***	0.149 ***	-0.028	0.113 **
ESG_ENVIRONMENT	0.331 ***	0.076	0.921 ***	1.000	0.982 ***	0.976 ***	0.157 ***	-0.024	0.111 **
ESG_SOCIAL	0.243 ***	0.094 **	0.979 ***	0.887 ***	1.000	0.995 ***	0.151 ***	-0.030	0.117 **
ESG_GOVERNANCE	0.181 ***	0.073	0.924 ***	0.758 ***	0.860 ***	1.000	0.138 ***	-0.018	0.106 **
<b>Panel C: Control Variables (Corporate Governance Variables)</b>									
BIG4	0.123 ***	0.066	0.168 ***	0.144 ***	0.184 ***	0.126 ***	1.000	0.028	0.070
CEO_DUALITY	-0.072	0.001	-0.053	-0.078	-0.068	-0.001	0.028	1.000	-0.137 ***
<b>Panel D: Control Variables (Financial Indicators Variables)</b>									
LEVERAGE	0.090 *	-0.047	0.055	0.055	0.061	0.039	0.030	-0.069	1.000
SIZE	0.388 ***	0.033	0.293 ***	0.345 ***	0.285 ***	0.222 ***	0.064	-0.088	0.462 ***
EARNING	0.637 ***	0.428 ***	0.216 ***	0.248 ***	0.215 ***	0.154 ***	0.086 *	-0.061	-0.017

Note: ROA (return on asset) is the earnings before interest and tax deflated by total assets. MARKET\_CAP is a market capitalization for the firms which represents the total market value of a company's outstanding shares of stock, calculated by multiplying the share price by the number of shares outstanding. Meanwhile, ESG\_SCORE reflects the company's performance in ESG\_ENVIRONMENT (Environmental), ESG\_SOCIAL (Social), and ESG\_GOVERNANCE (Governance) areas, typically based on disclosures in the annual report. BIG4 represents the established audit firm, coded as 1 if the auditor is among Big 4 companies or '0' otherwise. CEO\_DUALITY is a control variable, indicating whether the roles of CEO and Chairman of the Board are held by the same person (coded as 1) or not (coded as 0). LEVERAGE is measured as the end-of-the-year total debt divided by total assets. SIZE represent by (total asset) is to measure the firm size. EARNING represents the company's earnings, which may include net income or other relevant financial metrics. There are 182 listed family firms in Malaysia under study which represents 441 firms-year observations. \*, \*\*, and \*\*\* denote significant at the 10%, 5%, and 1% level respectively.

### Multivariate Analysis

This section presents the results of the panel data regression used to examine the relationships between the dependent variable (ESG\_SCORE), independent variables (ROA and MARKET\_CAP), and control variables (BIG4, CEO\_DUALITY, LEVERAGE, SIZE, and EARNING). The analysis explores both overall ESG performance and its specific components—environmental, social, and governance—based on the research objectives. Table 3 shows the Hausman test results, which indicate that the fixed effects model is appropriate, as the p-value is less than 0.05. According to the Hausman test, a significant p-value leads to rejection of the null hypothesis, confirming that the fixed effects model should be used for the regression analysis.

### ESG Disclosure and ROA

Table 3 presents the panel least squares regression examining the relationship between ESG disclosure (ESG\_SCORE) and ROA for the sample of firms from 2020 to 2022. All models have variance inflation factors (VIFs) below 10, indicating no multicollinearity issues, and include period fixed effects and industry dummies. Panel A shows a modest positive relationship between ESG\_SCORE and ROA, significant at the 10% level in the first model, suggesting that higher ESG performance is slightly associated with better firm performance (Ammer et al., 2020; Le et al., 2021). Panel B highlights the influence of corporate governance: association with a Big Four accounting firm (BIG4) and CEO duality both show significant positive effects on ROA. Panel C shows that among financial indicators, earnings positively affect ROA, while leverage and firm size have minimal impact. The models' adjusted R-squared values (0.002 and 0.176) indicate that they explain a modest proportion of variance in ROA, but the significant F-statistic in the second model (12.778) confirms the overall relevance of the included variables. These findings emphasize the importance of corporate governance and earnings, alongside ESG disclosure, in shaping firm performance.

**Table 3: Relationship between ESG Disclosure and ROA**

Variable	Coefficient		Coefficient	
Intercept	3.111	***	2.470	**
	29.516		6.763	
<b>Panel A: Independent Variable</b>				
ESG_SCORE	0.078	*	0.010	
	3.412		0.838	
<b>Panel B: Control Variables (Corporate Governance Variable)</b>				
BIG4			0.810	
			1.114	
CEO_DUALITY			0.772	**
			5.861	
<b>Panel C: Control Variables (Financial Indicators Variables)</b>				

LEVERAGE		-0.001	
		-0.455	
SIZE		0.000	*
		-3.577	
EARNING		0.000	***
		21.003	
VIF (regression)	1.217	1.224	
Period fixed	Yes	Yes	
Adjusted R-squared	0.002	0.176	
F-statistic	1.364	12.778	***

### ESG Disclosure and Market Capitalization

Table 4 presents panel regression results examining the relationship between ESG performance (ESG\_SCORE) and market capitalization. In Panel A, ESG\_SCORE has a positive and statistically significant coefficient of 101,581.60 ( $t = 6.401$ ), indicating that higher ESG scores are associated with higher market capitalization, with the model explaining 6.6% of the variance (adjusted  $R^2 = 0.066$ ) and an overall good fit ( $F = 13.858$ ). Panel B adds corporate governance controls, where BIG4 and CEO\_DUALITY show positive and negative but non-significant effects, respectively, while the adjusted  $R^2$  rises to 0.465, suggesting improved explanatory power, and the F-statistic (49.314) confirms model significance. Overall, ESG\_SCORE, SIZE, and EARNING are significant predictors, whereas other variables like BIG4, CEO\_DUALITY, and LEVERAGE are not, showing that the models, particularly with controls, effectively explain variations in market capitalization.

**Table 4: Relationship between ESG Disclosure and Market Capitalization**

Variable	Coefficient		Coefficient	
Intercept	932950.300	***	294160.800	
	4.769		1.174	
<b>Panel A: Independent Variable</b>				
ESG_SCORE	101581.600	***	28085.520	**
	6.401		1.981	
<b>Panel B: Control Variables (Corporate Governance Variable)</b>				
BIG4			497442.800	
			- 1.324	
CEO_DUALITY			268937.700	
			- 0.520	
<b>Panel C: Control Variables (Financial Indicators Variables)</b>				
LEVERAGE			-817.836	
			-0.307	
SIZE			0.147	***
			5.378	
EARNING			6.033	
			15.345	
VIF	1.399		1.217	
(Regression)				
Period fixed	Yes		Yes	Adjusted R-
squared	0.066		0.465	
F-statistic	13.858	***	49.314	***

## Conclusion

Stakeholders increasingly consider ESG factors alongside financial performance, making ESG disclosure an important aspect of firm evaluation. This study of 182 Malaysian family firms from 2020 to 2022 (441 observations) finds that while Environmental, Social, and Governance components do not significantly affect ROA, ESG disclosure positively and significantly impacts market capitalization. Corporate governance factors, such as having a Big Four auditor and CEO duality, along with financial indicators like earnings, also enhance firm performance. These results suggest that ESG contributes more to perceived firm value and investor confidence than to operational profitability.

The study contributes to both practice and theory. Practically, transparent ESG disclosure improves corporate reputation, attracts socially responsible investors, lowers capital costs, and supports risk management and stakeholder engagement. Theoretically, it aligns with agency theory by reducing information asymmetry and with stakeholder theory by considering broader social and environmental impacts. Future research could examine long-term effects of ESG disclosure, industry-specific differences, regulatory variations, and non-financial outcomes such as reputation, employee satisfaction, and brand loyalty. Developing standardized ESG metrics and analyzing investor responses can further enhance understanding of how ESG disclosure influences firm performance and value creation.

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