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CEO DUALITY AND FIRM SIZE AS DETERMINANTS OF ESG DISCLOSURE: EVIDENCE FROM ASEAN AND BRICS DEVELOPING COUNTRIES (2012-2021)

ABSTRACT

Environmental, Social, and Governance (ESG) disclosure has become an increasingly important aspect of corporate reporting, particularly in developing economies where regulatory frameworks and governance practices often differ from those in developed markets. This study investigates how CEO duality and firm size are associated with ESG disclosure among 280 non-financial listed firms across seven ASEAN and BRICS countries Brazil, Indonesia, Malaysia, the Philippines, Russia, South Africa, and Thailand over the 2012–2021 period. Panel data were analysed using a fixed-effects regression model with standard errors clustered at the firm level to account for firm-specific characteristics. The findings suggest that CEO duality is associated with a negative, but statistically insignificant, relationship with ESG disclosure (coefficient = -4.312 , $p > 0.05$). This may indicate that combining the roles of chief executive officer and board chair does not consistently influence disclosure practices across the sampled developing economies. In contrast, firm size exhibits a strong and statistically significant positive association with ESG disclosure (coefficient = 2.151 , $p < 0.001$), suggesting that larger firms are generally more likely to provide extensive sustainability-related information. Additional analyses across individual countries and regional groupings show that these patterns remain broadly consistent, although the institutional setting may still shape the strength of these relationships. The study adds to the growing body of ESG research by comparing the relative influence of leadership structure and organisational scale on voluntary disclosure in emerging markets. The findings also suggest that firm size appears to be a more consistent determinant of ESG disclosure than CEO duality in environments often characterised by concentrated ownership and relatively weak regulatory enforcement.

Keywords: CEO duality, firm size, ESG disclosure, emerging markets, corporate governance, developing countries, ASEAN, BRICS

1. INTRODUCTION

1.1 Background and Research Motivation

Environmental, Social, and Governance (ESG) disclosure has become an increasingly important means through which firms communicate their commitment to transparency, accountability, and sustainable business practices. In recent years, sustainability reporting has shifted from being largely voluntary to becoming an important consideration for investors, regulators, and other stakeholders.

For example, the proportion of S&P 500 companies publishing sustainability reports increased from 53% in 2012 to 82% in 2017 (Yu et al., 2018). Despite this progress, ESG reporting remains uneven across regions. Although global ESG assets under management are projected to reach approximately USD 53 trillion by 2025 (Bloomberg Intelligence, 2021), most ESG-focused investment continues to flow toward developed markets rather than developing economies (Mbeni, 2022). The ASEAN region illustrates why ESG disclosure has attracted growing attention. Alongside strong foreign direct investment inflows rising from USD 123 billion in 2016 to USD 149 billion in 2018 (ASEAN Secretariat, 2018) the region faces considerable environmental and sustainability challenges. Covering only about 3% of the Earth's surface while supporting nearly 20% of global plant, animal, and marine species, ASEAN countries occupy an ecologically significant position (Economist Impact, 2022). At the same time, increasing pollution, biodiversity loss, and climate-related risks have heightened expectations for greater corporate transparency. Indonesia, for instance, has been identified among the world's most polluted countries (Hardini et al., 2023), highlighting the environmental pressures confronting many firms operating within the region.

Comparable trends can also be observed across the BRICS economies. Collectively, Brazil, Russia, India, China, and South Africa account for approximately 42% of the world's population and nearly 23% of global gross domestic product (Shodrova & Asngari, 2024). Over the past two decades, these countries have gradually strengthened ESG-related initiatives, although the pace and scope of implementation have differed. Brazil introduced its Corporate Sustainability Index in 2005 (Reale et al., 2017), Russia expanded non-financial reporting requirements (Ievdokymova, 2019), and South Africa established Africa's first socially responsible investment index in 2004 (Zou et al., 2019). Such developments may indicate a growing institutional commitment to sustainability, even though regulatory quality and enforcement continue to vary considerably across countries. Even with these advances, relatively little empirical evidence explains which firm-level characteristics consistently influence ESG disclosure across developing economies. Much of the existing literature has focused on individual countries or developed markets, making it difficult to determine whether commonly identified determinants operate similarly under different institutional conditions.

Three main gaps provide the motivation for this study. First, research on CEO duality and corporate disclosure has been dominated by evidence from developed economies, where ownership is generally more dispersed and institutional investors exert stronger governance pressure. Whether these findings extend to developing countries where concentrated ownership, family-controlled businesses, state ownership, and political connections are more common remains uncertain. Second, although firm size and corporate governance characteristics have frequently been associated with ESG disclosure, relatively few cross-country studies have compared their relative influence within a single analytical framework. Existing research rarely evaluates whether organisational size or governance structure plays the more important role after accounting for other firm characteristics such as leverage, board size, and financial performance. Third, institutional differences across developing economies have received limited attention. Evidence drawn from a single country, such as China, India, or Bangladesh, offers valuable insights but may not capture how legal systems, governance traditions, and regulatory environments shape disclosure behaviour. Examining firms across both ASEAN and BRICS countries provides a broader setting for assessing whether the determinants of ESG disclosure remain consistent under different institutional conditions.

Research Question and Contribution

This study addresses the following research question: What are the independent effects of CEO duality and firm size on ESG disclosure in developing countries, and how do these effects compare in terms of magnitude and statistical significance? The findings offer two principal contributions to the emerging-market ESG literature. First, CEO duality appears to have no statistically significant influence on ESG disclosure across the sampled firms, suggesting that assumptions derived from

developed-market studies may not fully apply in developing economies. Second, firm size emerges as a more consistent determinant of ESG disclosure, particularly among BRICS firms, whereas governance-related factors appear to play a comparatively stronger role within ASEAN countries. These findings underscore the importance of considering institutional context when evaluating the drivers of corporate sustainability reporting.

2. METHODOLOGY

2.1 Sample and Data Source

The study focuses on non-financial firms listed in seven developing economies: Brazil, Indonesia, Malaysia, the Philippines, Russia, South Africa, and Thailand. A final sample of 280 firms was assembled, producing an unbalanced panel covering the period from 2012 to 2021. The empirical analysis centres on three key variables: CEO duality (CEOCD), firm size (LNFSIZE), and ESG disclosure. The selected countries provide a suitable setting for examining ESG disclosure because they represent diverse institutional environments while sharing many characteristics associated with developing markets. The ASEAN economies included in the sample Indonesia, Malaysia, the Philippines, and Thailand face considerable environmental challenges, including climate vulnerability and high levels of biodiversity, while simultaneously expanding ESG-related regulations and reporting frameworks. In parallel, the BRICS members represented in the study Brazil, Russia, and South Africa are among the largest emerging economies and differ in their governance systems, regulatory environments, and stages of economic development. Bringing these countries together creates a broader basis for assessing whether firm-level determinants of ESG disclosure remain consistent across different institutional settings or appear to vary with national context. Collectively, the sample spans four continents, capturing a wide range of economic and governance conditions.

2.2 Variable Definitions and Measurement

ESG disclosure serves as the dependent variable and is measured using the Refinitiv ESG Score, which ranges from 0 to 100. The score reflects a firm's environmental, social, and governance performance based on publicly available information, including annual reports, sustainability reports, corporate governance disclosures, and verified third-party certifications. Refinitiv is widely used in empirical ESG research because of its relatively transparent methodology and broad international coverage, although, like other commercial ESG databases, it may still be subject to differences in reporting practices across firms and countries. CEO duality (CEOCD) is the primary governance variable and is measured as a binary indicator. A value of one indicates that the chief executive officer also serves as chair of the board, whereas a value of zero indicates that the two positions are held separately. Firm size (LNFSIZE) is measured as the natural logarithm of total assets expressed in U.S. dollars. Applying the logarithmic transformation helps reduce the influence of highly skewed asset values and produces a more normally distributed variable, making coefficient estimates easier to interpret.

Several control variables are included to reduce the likelihood that the estimated relationships are driven by omitted firm characteristics. Board Independence (BIP) is measured as a binary variable, where a value of one indicates that a firm maintains an independent board and has an established policy supporting board independence, while zero indicates otherwise. The measure follows Refinitiv's governance criteria, which are broadly aligned with internationally recognised corporate governance principles. Board Gender Diversity (BGD) is also treated as a binary variable. A value of one indicates that board composition meets Refinitiv's criteria for supporting the objectives of the

United Nations Sustainable Development Goal 5 on gender equality, whereas zero represents firms that do not satisfy those criteria. Although this binary measure captures policy alignment, it may not fully reflect the actual level of female representation or the influence of women on board decision-making. Leverage (LEV_W) is calculated as total debt divided by total assets and is winsorised at the 5th and 95th percentiles to limit the influence of extreme observations. Before winsorisation, the maximum leverage ratio reached 275.68, a value that may reflect reporting anomalies or firms experiencing severe financial distress. Board Size (BS_W) is measured as the total number of directors serving on the board and is likewise winsorised at the 5th and 95th percentiles to reduce the effect of unusually small or exceptionally large boards. Lagged Firm Performance (TOBIN'S_Q_W) is measured using Tobin's Q, calculated as the market value of equity plus total debt divided by total assets. The variable is lagged by one year to lessen potential reverse-causality concerns and is winsorised at the 5th and 95th percentiles to minimise the influence of extreme market valuations.

Table 1: Descriptive Statistics by Country

Country	N (firm-year)	ESG Mean	ESG SD	Firm Size Mean
Brazil	627	52.55	19.81	22.35
Indonesia	262	43.29	20.68	21.73
Malaysia	369	46.63	17.21	22.03
Philippines	176	39.67	20.52	22.63
Russia	273	42.54	17.42	23.51
South Africa	677	52.91	16.49	21.53
Thailand	248	57.82	18.70	22.39
Total	2,632	49.78	19.14	22.18

ESG disclosure varies substantially by country, with Thailand showing a high mean of 57% and Indonesia a low mean of 39%, reflecting institutional and regulatory heterogeneity see also ([Pratama et al., 2022](#)).

Table 2. Correlation

Variable	ESG	CEOCD	LNFSIZE	BIP	BGD	LEV_W	BS_W	TOBINS'Q_W
ESG	1.000							
CEOCD	-0.133*	1.000						
LNFSIZE	0.163*	0.022	1.000					
BIP	0.165*	0.082*	0.061*	1.000				
BGD	0.249*	0.006	0.088*	0.122*	1.000			
LEV_W	0.062*	0.096*	0.157*	0.115*	0.072*	1.000		
BS_W	0.190*	-0.123*	0.266*	0.016*	0.012	0.067*	1.000	
TOBINS'Q_W	0.013	-0.008	-0.358*	-0.079*	-0.050*	-0.178*	-0.085*	1.000

*p < 0.05

ESG disclosure is positively correlated with firm size ($r = 0.163$), board gender diversity ($r = 0.249$), and board size ($r = 0.190$), but negatively correlated with CEO duality ($r = -0.133$). Firm size is negatively correlated with Tobin's Q ($r = -0.358$), consistent with mature, large firms trading at lower market-to-book multiples. No VIF concerns; maximum correlation magnitude is 0.358 (well below multicollinearity threshold of 0.70).

Econometric Specification

The following model was estimated $ESGDit = \alpha + \beta_1 CEOCD_{it} + \beta_2 LNFSIZE_{it} + \beta_5 CONTROL_{it} + \mu_i + \varepsilon_{it}$. where: i indexes firms, t indexes years, μ_i = firm fixed effects (time-invariant heterogeneity), θ_t = year dummies (time-period fixed effects) ε_{it} = idiosyncratic error term Estimator: fixed-effects model with robust standard errors clustered by firm. This approach: Corrects for serial correlation within firms (Wooldridge test justified given panel structure); corrects for heteroskedasticity (Breusch-Pagan concerns warranting robust covariance matrix); accounts for repeated observations per firm through clustering; includes year dummies to absorb macroeconomic period effects. Diagnostic checks revealed Variance Inflation Factors (VIF): All < 4.0 (maximum = 1.14) Correlation matrix: All $|r| < 0.36$. Model-level F-statistic significant ($p < 0.001$).

3. RESULTS

3.1 Main Regression Results

Table 3: Regression of ESG Disclosure on CEO Duality, Firm Size, and Controls

Variable	All Firms	ASEAN	BRICS	Std. Error
CEO Duality (CEOCD)	-4.312*	-10.44***	-0.757	2.415
Firm Size (LNFSIZE)	2.151***	0.00366	3.093***	0.804
Board Independence (BIP)	6.829***	13.89***	2.017	2.020
Board Gender Diversity (BGD)	8.064***	4.482*	10.49***	1.658
Leverage (LEV_W)	0.475	-0.65	1.449	0.888
Board Size (BS_W)	0.949***	0.835*	0.889**	0.311
L.TOBIN'S Q (TOBIN'S Q_W)	2.029**	1.419	2.429*	0.917
Constant	-6.151	47.3	-31.19	18.58
Model Statistics				
Observations	1,813	826	987	
R ²	0.176	0.293	0.162	
N Firms	280	121	159	
F-statistic (p-value)	15.78 (0.000)	—	—	

The reported coefficients represent fixed-effects estimates. Standard errors, shown in the Std. Error column, are heteroskedasticity-robust and clustered at the firm level. Statistical significance is indicated as follows: *** $p < 0.01$, ** $p < 0.05$, and * $p < 0.10$. The standard errors presented in the table are rounded for ease of presentation, while the exact values are reported in the corresponding model output. All regression models include year dummy variables to account for common time-specific effects, and firm fixed effects capture unobserved characteristics that remain constant within firms over time.

3.2 Key Findings on CEO Duality

The estimated coefficient for CEO duality is -4.312 (standard error = 2.415; $t \approx -1.79$; $p \approx 0.074$). Although the coefficient is negative, it does not reach the conventional 5% level of statistical significance. It is, however, marginally significant at the 10% level, suggesting only limited evidence of an association between CEO duality and ESG disclosure. The estimated 95% confidence interval, which ranges from approximately -9.05 to 0.43, includes zero, indicating that the true effect may be

negligible. Across the full sample of 1,813 firm-year observations representing 280 firms, the findings do not provide strong evidence that combining the roles of chief executive officer and board chair systematically reduces ESG disclosure. This contrasts with several studies conducted in developed markets that report a stronger negative relationship between CEO duality and sustainability disclosure (Amran et al., 2011; Husted & Sousa-Filho, 2018). A closer examination by region reveals that the overall result masks important institutional differences. Within the ASEAN sample, CEO duality is negatively associated with ESG disclosure and the relationship is highly significant ($\beta = -10.44$, $p < 0.001$). By comparison, the coefficient for the BRICS sample remains negative but is statistically insignificant ($\beta = -0.757$, $p > 0.10$). These contrasting findings may suggest that the influence of CEO duality depends, at least in part, on the institutional environment in which firms operate. One possible explanation is that governance structures become more consequential in settings where sustainability reporting requirements are relatively more developed, such as Malaysia, whereas weaker regulatory enforcement in parts of the BRICS group may reduce the practical impact of leadership structure on disclosure decisions.

3.3 Key Finding: Firm Size

Firm size exhibits a positive and statistically significant association with ESG disclosure (coefficient = 2.151; standard error = 0.804; $t \approx 2.68$; $p < 0.01$). The estimated coefficient indicates that a one-unit increase in the natural logarithm of total assets equivalent to roughly a 2.7-fold increase in asset value is associated with an average increase of approximately 2.15 points in the ESG disclosure score, measured on a 0–100 scale. The economic significance of this relationship is also noteworthy. Moving from the 25th percentile of firm size (approximately 21.3 log assets) to the 75th percentile (approximately 23.0 log assets) represents an increase of about 1.7 log units. Based on the estimated coefficient, this translates into an expected increase of roughly 3.66 ESG disclosure points, equivalent to about 19% of one standard deviation in the disclosure score. Compared with the estimated effect of CEO duality, the influence of firm size is approximately seven to ten times larger, suggesting that organisational scale is more closely associated with ESG reporting practices.

Regional estimates again reveal meaningful variation. Among BRICS firms, the relationship between firm size and ESG disclosure is positive and highly significant ($\beta = 3.093$, $p < 0.001$), with particularly strong effects observed in Brazil ($\beta = 5.576$, $p < 0.001$) and South Africa ($\beta = 4.809$, $p < 0.001$). In contrast, the ASEAN sample shows virtually no overall size effect ($\beta = 0.004$, $p > 0.10$), although considerable differences remain across individual countries. Negative coefficients are observed for Indonesia ($\beta = -2.755$) and Malaysia ($\beta = -3.933$, $p < 0.05$), whereas positive coefficients appear for the Philippines ($\beta = 4.129$) and Thailand ($\beta = 7.264$, $p < 0.001$). These regional differences may reflect variations in institutional and regulatory conditions. In the BRICS economies, larger firms are generally more visible to international investors, lenders, civil society organisations, and the media, increasing incentives to disclose ESG information. Greater financial and organisational resources may also allow these firms to establish sustainability reporting systems, employ specialised compliance personnel, engage third-party assurance providers, and meet the disclosure expectations associated with international capital markets. The relatively weak relationship observed within ASEAN could indicate a different reporting environment. In jurisdictions where sustainability disclosure requirements are more established, firms of different sizes may already face similar reporting expectations, reducing the additional advantage typically associated with larger organisations. It is also possible that mandatory reporting frameworks have narrowed disclosure differences between large and small firms, although further investigation would be needed to confirm this interpretation.

3.5 Model Fit and Explanatory Power

The model explains approximately 17.6% of the variation in ESG disclosure ($R^2 = 0.176$). Although this level of explanatory power may appear relatively modest, it is consistent with many studies examining voluntary corporate disclosure, where reporting behaviour is shaped by numerous organisational and institutional influences. Much of the remaining variation is likely to reflect factors beyond the variables included in the model, such as industry characteristics, country-specific regulatory environments, firm strategy, and unavoidable measurement error associated with ESG reporting. Model performance differs across regions. The ASEAN subsample records a higher explanatory power ($R^2 = 0.293$), suggesting that firm-level governance and organisational characteristics account for a larger share of ESG disclosure decisions. By comparison, the BRICS sample produces a lower R^2 value (0.162). This may indicate that disclosure practices in these economies are influenced more strongly by factors that are difficult to observe directly, including state ownership, political relationships, or institutional conditions that vary across countries. The overall regression remains statistically significant. An F-statistic of 15.78 ($p < 0.001$) rejects the null hypothesis that all estimated coefficients are jointly equal to zero, indicating that the explanatory variables collectively provide meaningful insight into differences in ESG disclosure across firms.

4. DISCUSSION

4.1 CEO Duality in the Emerging-Market Context

The absence of a statistically significant relationship between CEO duality and ESG disclosure differs from much of the evidence reported in developed economies. Rather than suggesting that leadership structure is irrelevant, the findings may indicate that its influence depends on the governance environment in which firms operate. A possible explanation lies in ownership concentration. In developed markets, CEO duality is often viewed as weakening board oversight because managerial authority becomes concentrated in a single individual (Küçükocaoğlu & Gökten, 2018). Many emerging economies present a different governance landscape. Ownership is frequently concentrated among founding families, controlling shareholders, or state entities, and the chief executive officer may also be the firm's largest shareholder. Under these conditions, the central governance challenge shifts from conflicts between managers and owners to conflicts between controlling and minority shareholders. As a result, combining the roles of CEO and board chair does not necessarily indicate ineffective governance and, in some cases, may reflect a governance structure designed to align strategic decision-making.

Board independence offers another perspective. Although many firms formally comply with governance codes by appointing independent directors, previous research suggests that independence on paper does not always translate into meaningful oversight (Abdelfattah & Aboud, 2020). Long-standing business relationships, cross-shareholding arrangements, or political affiliations may reduce the ability of independent directors to challenge executive decisions. If genuine board independence is limited, separating the positions of CEO and board chair alone is unlikely to produce substantial improvements in ESG disclosure. Another possibility is that firms establish legitimacy through different channels. Larger organisations often rely on their market presence, financial strength, and visibility to demonstrate credibility, whereas smaller firms may place greater emphasis on formal governance arrangements. Within this context, CEO duality appears to play a less influential role than broader organisational characteristics in shaping disclosure behaviour. These findings also carry policy implications. Governance reforms in developed economies frequently encourage mandatory separation of the CEO and board chair positions. The present evidence suggests that adopting similar requirements in emerging markets may not produce comparable outcomes (Haroon & Zaka, 2023).

Greater benefits may instead arise from policies that strengthen disclosure quality, improve transparency in related-party transactions, and enhance protections for minority shareholders. Such measures appear more closely aligned with the governance challenges commonly observed in developing economies.

4.2 Firm Size as a Dominant Driver of ESG Disclosure

The positive association between firm size and ESG disclosure is consistent with Resource Dependence Theory (Pfeffer & Salancik, 1978), which proposes that organisations seek external resources by maintaining legitimacy with important stakeholders. Larger firms typically interact with a broader range of investors, regulators, multinational customers, lenders, and development finance institutions. These relationships are likely to increase expectations for transparent sustainability reporting. Several factors may help explain why organisational size matters. First, larger firms receive greater public attention from financial analysts, institutional investors, civil society organisations, and the media. Under such conditions, ESG disclosure may serve as a relatively efficient way to demonstrate accountability and strengthen corporate legitimacy.

Resources also appear to matter. Preparing comprehensive ESG reports often requires specialised staff, dedicated information systems, external assurance providers, and continuous monitoring of environmental and social performance. Large organisations can generally spread these fixed costs across a broader asset base, whereas similar investments may place a much heavier burden on smaller firms. Access to international capital markets provides another plausible explanation. Companies seeking foreign investment, issuing international debt, or participating in global equity markets are more likely to encounter investors who consider ESG performance during financing decisions. Smaller firms that depend primarily on domestic lending institutions may face considerably less pressure to provide detailed sustainability disclosures. Participation in global supply chains may further reinforce these differences. Large firms often operate as lead manufacturers or major suppliers to multinational corporations, exposing them to stricter environmental and social reporting requirements. Smaller firms positioned further down the supply chain may experience less direct scrutiny, reducing the incentive to invest in extensive ESG reporting systems.

The regional findings support this interpretation. Firm size has a much stronger association with ESG disclosure among BRICS firms than among ASEAN firms. One explanation may be that voluntary disclosure carries greater importance in environments where regulatory enforcement is relatively limited. In such settings, larger firms may rely more heavily on ESG reporting to strengthen credibility with investors and international stakeholders. By contrast, several ASEAN countries have introduced more comprehensive sustainability reporting frameworks, reducing differences in disclosure practices between large and small firms. Mandatory reporting requirements, particularly in jurisdictions such as Malaysia, may have narrowed the reporting gap by establishing minimum disclosure expectations regardless of firm size. From a policy perspective, these findings suggest that improving ESG disclosure requires more than governance reforms alone. Expanding reporting infrastructure, simplifying disclosure templates, developing shared digital reporting platforms, and providing targeted financial or technical assistance for small and medium-sized enterprises may encourage broader participation in sustainability reporting. Governance requirements remain important, but they are unlikely to produce substantial improvements when firms lack the resources needed to comply effectively.

5. LIMITATIONS

Several limitations should be acknowledged when interpreting these findings. First, the analysis relies on Refinitiv ESG data, which primarily cover larger publicly listed companies with international market exposure (Dobrick et al., 2023). Smaller domestic firms receive less coverage, limiting the extent to which the findings can be generalised across the wider population of firms operating in emerging economies. Second, the empirical approach identifies statistical associations rather than causal relationships. Although panel estimation helps control for unobserved firm characteristics, reverse causality cannot be ruled out. Firms with stronger ESG disclosure may become more attractive to investors, expand more rapidly, or gain easier access to external finance, potentially reinforcing the observed relationship between firm size and disclosure. Future research could strengthen causal inference by employing instrumental variables, natural experiments, or policy changes that generate exogenous variation. Another limitation concerns the measurement of governance variables. Board independence and board gender diversity are represented using binary indicators, which provide only a simplified picture of governance quality. Continuous measures, such as the proportion of independent directors or the percentage of female board members, would likely capture greater variation and improve the precision of the estimated relationships.

Several potentially important explanatory variables are also omitted. Political connections, foreign institutional ownership, media visibility, and detailed industry characteristics may influence ESG disclosure and could partly account for the relationships observed in the analysis. Incorporating these factors in future research would provide a more comprehensive understanding of disclosure behaviour. Finally, the study covers the period from 2012 to 2021, which includes the disruption caused by the COVID-19 pandemic. Changes in business operations, reporting priorities, and financial performance during this period may have affected ESG disclosure patterns. Additional sensitivity analyses that exclude the pandemic years, or examine them separately, would help determine whether the reported findings remain stable under different economic conditions.

6. CONCLUSION

The findings provide further evidence on the relative roles of CEO duality and firm size in shaping ESG disclosure across emerging-market firms. By examining these governance and organisational characteristics within a single analytical framework, the analysis offers insight into how disclosure practices may differ across institutional settings rather than assuming that conclusions drawn from developed markets apply universally. Several findings stand out. First, CEO duality does not exhibit a statistically significant association with ESG disclosure in the pooled sample. This result differs from much of the evidence reported in developed economies and may reflect the distinctive ownership structures that characterise many emerging markets. In firms with concentrated ownership, where controlling shareholders often occupy both executive and board leadership positions, CEO-chair duality may not necessarily signal managerial entrenchment. Instead, it may represent an ownership structure in which decision-making authority is already closely aligned with controlling interests.

Second, firm size emerges as the strongest predictor of ESG disclosure. Its estimated effect is substantially larger than that of CEO duality, suggesting that organisational scale is more closely associated with sustainability reporting practices. This finding is broadly consistent with Resource Dependence Theory, which argues that organisations seek legitimacy and access to external resources by responding to stakeholder expectations. Larger firms generally possess greater financial capacity, stronger international visibility, and broader access to capital markets, all of which may encourage more extensive ESG disclosure, particularly where regulatory enforcement remains uneven. The

analysis also indicates that board gender diversity has greater explanatory power than board independence. Although this finding should be interpreted cautiously, it may suggest that board diversity contributes to ESG reporting through perspectives and decision-making processes that extend beyond conventional measures of governance quality. At the same time, the result highlights the need for further research using more detailed governance indicators, as binary measures may not fully capture differences in board effectiveness.

Another important observation concerns institutional heterogeneity. Governance-related factors appear to play a stronger role within the ASEAN sample, whereas organisational scale is more influential among BRICS firms. These differences suggest that ESG disclosure is shaped not only by firm characteristics but also by the broader legal, regulatory, and institutional environment in which firms operate. A uniform governance approach may therefore overlook important contextual differences across developing economies. The findings also have practical implications for policymakers and regulators. Rather than relying primarily on mandatory separation of the chief executive officer and board chair positions, greater benefits may come from strengthening disclosure quality and improving transparency in areas such as related-party transactions and ownership structures. Such reforms may address governance concerns that are more relevant in concentrated ownership systems than leadership structure alone. Improving ESG disclosure may also require greater investment in reporting capacity. Simplified reporting frameworks, digital disclosure platforms, technical guidance, and financial support for small and medium-sized enterprises could help reduce the cost of compliance while encouraging broader participation in sustainability reporting. These measures are likely to be particularly valuable in developing economies where resource constraints remain a significant barrier.

Finally, the findings suggest that ESG reporting requirements could be tailored according to firm size. Comprehensive disclosure standards may be appropriate for large firms with greater financial and organisational capacity, whereas simplified reporting requirements could reduce compliance costs for medium-sized enterprises. For smaller firms, a phased or voluntary approach may encourage gradual adoption without imposing disproportionate administrative and financial burdens. Such a differentiated framework may improve reporting quality while recognising the diverse capacities of firms operating across emerging-market economies.

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