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Corporate Governance Matters: Analysing Its Effect on Sustainability Reporting

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Abstract

This study investigates the impact of corporate governance factors on sustainability reporting in Sri Lanka. A sample of 40 listed companies was drawn from the Colombo Stock Exchange using a stratified random sampling method, and data were collected from the period of 2013- 2023. The proposed hypotheses were tested using the panel regression analysis. The findings indicate that board independence, dual leadership, and board diversity are significantly associated with sustainability reporting practices, and board size has no significant impact on sustainability reporting practices. This study focuses on the development of sustainability reporting by public listed companies in a developing country context and the firm-specific characteristics that influence their sustainability reporting. The findings of this study focus on the management implications of board involvement, which is important to policymakers in the emerging capital markets. The outcomes of this study advise enterprises to intentionally seek to design an effective corporate governance mechanism that would inspire and persuade leaders to commit to initiatives related to sustainability and modify their disclosure procedures accordingly.

Keywords: Board size, Board Independence, Board diversity, Dual leadership structure, Public listed companies in Sri Lanka, Sustainability Reporting practices

1. Introduction

Sustainability has grown to be a key concern in business management in that companies are viewed as being able to meet the needs of the current generation without compromising the requirements and capabilities of future generations. People incorporate sustainability into their businesses and ensure that resources are utilized in such a way that both ecological efficiency and social equity are achieved (Hariram et al., 2023). As businesses expand their accountability beyond shareholders to include a broader set of stakeholders, such as customers and the public, the role of sustainability

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reporting (SR) has grown significantly (Lee, 2023). Sustainability reporting provides a platform for firms to disclose their environmental, social, and governance (ESG) impacts, driven by increasing regulatory expectations in this domain. As stakeholder expectations continue to evolve, many firms adopt sustainability reporting as a means of enhancing transparency, strengthening brand value, and achieving competitive advantage (Birth et al., 2008; Hahn & Kühnen, 2013; Magness, 2006; Suhartini et al., 2024). However, despite the recognition of the importance of sustainability in corporate ethics and the push towards sustainable development (Banai & Sama, 2000; Kolk & Van Tulder, 2004), research in developing countries remains scarce (Farisyi et al., 2022).

Sri Lanka presents a compelling context for this investigation, given its unique socio-economic and institutional context. Although a country's sustainability reporting practices are voluntary, it remains crucial for firms aiming to strengthen corporate image, enhance firm value and remain competitive (Swarnapali, 2020). The voluntary nature of SR in Sri Lanka provides an opportunity to examine how corporate governance characteristics, particularly board composition, influence these practices

While existing studies give some description of sustainability disclosures, they fall short in examining the governance mechanisms influencing such reporting behaviour within the unique institutional context of an emerging capital market (Oriaifoh & Lodikero, 2025). Sri Lanka's corporate sector has a unique trait of having concentrated ownership structures, family-controlled businesses, and one-tier boards where board characteristics are particularly important in influencing strategic reporting decisions. Nevertheless, the specific role of board composition in determining sustainability reporting practices has not been sufficiently theorized or empirically examined in the context of Sri Lanka, resulting in an evident void in local literature. Furthermore, agency, legitimacy, and resource-dependence theories suggest that boards are central to monitoring, legitimacy seeking, and resource provision, and more studies are required to link these theoretical predictions to sustainability reporting outcomes (Bartolacci et al., 2022). In light of this gap, this research aims to determine how the characteristics of the board affect the sustainability reporting in the context of the institutional and governance structures of Sri Lanka. This offers a deeper explanation of why the specific characteristics of the board are especially important, governing factors of sustainability reporting in developing countries.

Therefore, the motivation for this study is to respond to the important research gap by investigating how sustainability reporting practices have changed in developing nations. It attempts to examine the key corporate governance factors that support these reporting endeavors and how governance structures in these countries may strive to enhance accountability, transparency, and sustainable development in their economies. The study contributes to the growing body of literature on sustainability reporting and offers new insights into its adoption and implementation in developing economies. The findings of this study will provide valuable implications for policymakers, business leaders, and researchers aiming to promote sustainable practices in emerging markets, ultimately addressing the pressing global challenges of environmental degradation and social inequality.

2. LITERATURE REVIEW

2.1. Sustainability reporting and its theoretical foundation

This study investigates the link between corporate governance (CG) attributes and sustainability reporting practices, relying on agency, legitimacy, and theoretical perspectives.

Sustainability reporting, along with other contemporary corporate reporting practices such as corporate social responsibility and integrated reporting, has received increasing scholarly attention. However, the lack of sustainability reporting frameworks has resulted in disparate practices worldwide (Oluwatobi et al., 2024). Moreover, many organizations follow Global Reporting Initiative (GRI) guidelines to increase trust and focus on sustainability reporting (Friske et al., 2024). The GRI Framework supports the concept of sustainable development by defining a set of principles, offering guidance and recommendations and providing a comprehensive list of KPIs and disclosures that the organization must adopt to communicate its sustainability performance. Compliance with GRI principles increases transparency in a company, assists in internal management processes and improves relations with the stakeholders. Because sustainability reporting is a voluntary disclosure practice, its adoption is shaped not only by societal expectations but also by board-level governance decisions that respond strategically to these external pressures. Companies that are part of the global economy are compelled to engage in more socially and environmentally constructive practices and are encouraged to be accountable to many stakeholders, including shareholders, consumers and the public (Kathy Rao et al., 2012).

The board structure plays a critical role in shaping the extent of sustainability disclosures (Zhang, 2012). Agency theory is relevant to the discussion of the principal-agent problem in an organization by depicting the role of the board in overseeing managers in controlling agency problems and costs (Eisenhardt, 1989). Managers can improve their disclosure quality by adopting sustainability reporting practices that reduce agency costs and enhance the firm's value. According to legitimacy theory, firms pursue legitimacy by optimizing their actions to align with societal expectations (Newson & Deegan, 2002). Companies strive to maintain legitimacy by reporting sustainability information so as to continue to conform to societal expectations. The integration of agency theory and legitimacy theory offers a more comprehensive perspective of sustainability reporting practices. Agency theory highlights the role of internal mechanisms in regulating managers, while legitimacy theory emphasizes the need for external legitimacy in the context of sustainability disclosures in a firm (Hahn & Kühnen, 2013).

Hence, in this study, the theory of agency outlines how certain characteristics of a board decrease the information asymmetry and agency costs through better monitoring (Girella et al., 2022; Wang, 2017), in turn, leading to further sustainability disclosures. Legitimacy theory explains why boards incorporate certain demographic and structural features (McHugh & Perrault, 2018), such as gender diversity, ethnic representation, and separate leadership, to conform to societal standards. Consequently, these lenses offer a foundation to be able to conceptualize the connection between the governance characteristics and the practice of sustainability reporting.

2.2 Development of hypotheses

Boards are involved not only in the monitoring role but also in shaping strategic decisions, including those concerning voluntary disclosures such as sustainability reporting (Clarke, 2015). The board's involvement in sustainability reporting, particularly in firms with a single-tier board structure, is seen as crucial, as these boards hold the authority to define the company's mission and policy, and ensure alignment with stakeholder interests (Wijethilake et al., 2015). In Sri Lanka, where one-tier boards govern listed companies, the influence of board involvement on corporate strategic direction is more pronounced than that in other countries. In particular, board composition plays an essential role in motivating firms to become accountable to shareholders and a broader set of stakeholders (Kathy Rao et al., 2012; Reverte, 2009; Zhang, 2012). From a legitimacy perspective, companies disclose corporate social responsibility (CSR) information to demonstrate their adherence to societal norms (de Villiers & Marques, 2016). Ethical considerations in corporate decision-making are pivotal, as they affect all aspects of a company's operations (Banai & Sama, 2000). Zhang, (2012) states that board composition plays a significant role in maintaining an ethical business environment, supporting sustainability reports, and enhancing legitimacy. Agency theory and resource dependence theory serve as a basis for engagement in sustainability disclosures, and the board aids in the disclosure's aim (Shamil et al., 2014).

2.2.1. Board size and the sustainability reporting practices

Literature on board size presents two arguments. There are advocates for larger boards as well as smaller boards. Larger boards are said to be efficient because of the diversity of knowledge, whereas smaller boards have efficient control (Said et al., 2009). As this pertains to an agency, large boards might be able to improve monitoring abilities due to the incorporation of multiple perspectives, which in turn would decrease managerial discretion and foster more open sustainability reporting (De Villiers et al., 2011). A body of literature reports a positive association between board size and voluntary disclosures (Adebayo et al., 2023; Boateng et al., 2022; Lim et al., 2007), CSR disclosures (Esa & Anum, 2012; Ntim & Soobaroyen, 2013), and sustainability disclosures (Githaiga & Kosgei, 2023; Shamil et al., 2014). Other results, however, conflict, whereby board size was not significantly associated with managers' disclosure (Jasman et al., 2023). Based on the above findings, the following hypotheses are proposed.
H1. Board size has a significant impact on sustainability reporting practices.

2.2.2. Board Independence and the Sustainability Reporting Practices

From an agency theory perspective, the separation of the CEO and chairman role, known as CEO duality, is important in mitigating information asymmetry and increasing board independence. Hence, independent directors strengthen board oversight, reducing agency costs and ensuring that sustainability reporting reflects stakeholder expectations rather than managerial preference. The monitoring and transparency of boards are believed to be positively affected by the presence of independent directors, which in turn enhances the quality of corporate governance, as suggested by (Barako & Brown, 2008). However, views on the relationship between board independence and sustainability disclosures are not unanimous. For instance, some authors argue that with a greater number of independent directors, the nature and extent of dissemination of CSR information increases (Kiliç et al., 2015; Muttakin & Subramaniam, 2015), affecting voluntary reporting practices (Adebayo et al., 2023; Boateng et al., 2022) and sustainability reporting practices (Githaiga & Kosgei, 2023; Jasman et al., 2023). However, other studies have not found a significant or even a negative relationship between the level of board independence and the voluntary disclosures of the firm (Barako & Brown, 2008; Chau & Gray, 2010). Given these differing opinions, the following hypothesis is proposed:

H2. Independent directors have a significant impact on sustainability reporting practices.

2.2.3. Board Ethnicity and the Sustainability Reporting Practices

Legitimacy theory posits that firms with ethnically diverse boards are better able to meet the pluralistic demands of society (Abdelkader & Gao, 2023) within multi-ethnic contexts such as Sri Lanka. This may prompt firms to disclose sustainability information to achieve and maintain social legitimacy. These dynamics create a stronger expectation compared to more homogeneous markets that ethnically diverse boards will promote transparent sustainability reporting to build trust and mitigate legitimacy risks. Some studies claim that heterogeneous (multi-ethnic) boards enhance CSR disclosures, whereas others report no significant correlation (Shamil et al., 2014). The appointment of directors of various ethnicities is often regarded as a strategy of legitimization, which mirrors the socio-cultural context (Walt & Ingley, 2003). However, some studies suggest that such practices, such as sustainability reporting, are more prevalent among boards with different ethnic backgrounds (Barako & Brown, 2008; Zhang, 2012). Therefore, the following hypothesis is proposed:

H3. Board Ethnicity has a significant impact on sustainability reporting practices.

2.2.4. Board Gender Diversity and the Sustainability Reporting Practices

Gender diversity on boards has become an important determinant of the extent of sustainability reporting disclosures. Agency theory supports the argument that gender-diverse boards reduce agency costs by strengthening oversight (Ain et al., 2021), as female directors are often associated with ethical sensitivity and stakeholder-oriented governance, which may translate into greater sustainability disclosure. Several studies have found a strong positive correlation between the presence of women on boards and corporate social responsibility (CSR) reporting (Gennari, 2016). Women's board members are regarded as having greater emphasis on moral behaviour and stakeholder participation, which can influence companies to report sustainability disclosures more in detail (Adams & Ferreira, 2009; Barako & Brown, 2008; Githaiga & Kosgei, 2023). In contrast, some scholars have concluded that gender diversity has little or no influence on the extent of sustainability disclosures, with the conclusion that perhaps other factors also influence such reporting (Jasman et al., 2023; Ntim & Soobaroyen, 2013). Based on the above findings, this study proposed the following hypothesis.

H4. Board gender diversity has a significant impact on sustainability reporting practices.

2.2.5. Dual Leadership structure and the sustainability reporting practices

Agency theory states that CEO duality can undermine a board's independence by vesting power in a single individual. Following the legitimacy theory while considering the leadership structure, the separation of the roles of CEO and Chair allows the company to demonstrate good governance to outsiders, which improves perceived legitimacy and may increase sustainability disclosures. Furthermore, some studies report a dual leadership system as beneficial to a board's independence and monitoring, which in turn leads to higher sustainability disclosures (Shamil et al., 2014). On the other hand, other studies indicate a negative or no relationship between CEO duality and voluntary disclosure. (Boateng et al., 2022; Ntim & Soobaroyen, 2013; Said et al., 2009). Based on these mixed findings, we propose the following hypothesis:

H5.A Dual leadership structure has a significant impact on sustainability reporting practices.

While the previous research has concluded and proposed the impact of different attributes of the board on the sustainability reporting of the enterprise, the findings still remain incomplete and partially relevant. A deeper analysis of the literature demonstrates that most studies have focused on a single governance variable. The studies that have focused on multiple variables have failed to provide a complete theoretical framework to guide the analysis. In addition, most of the relevant empirical studies have focused on the developed nations or highly regulated markets, offering little understanding of how these mechanisms work in the case of emerging markets such as Sri Lanka, which has a unique configuration of ownership concentration, cultural diversity, and institutional pressures. These gaps illustrate the necessity for a better integrated and contextual understanding of the ways in which the multiple board attributes combine to influence the practice of sustainability reporting. This study aims to address this by merging agency and legitimacy theories and examining them in the context of Sri Lanka.

3. METHODS

3.1. Research Designing Process

This research utilizes a deductive research method in which the existing literature is employed to test the existing hypotheses, and the objective of this study is to test theoretically derived hypotheses regarding the influence of board characteristics on sustainability reporting. This study is based on the positivist paradigm, where the researcher uses empirical evidence to test the formulated hypothesis without being too dependent on the subject matter. Such data were then subjected to a quantitative approach, and large-scale panel data along with statistical software were used for hypothesis testing purposes. To provide solid empirical evidence, the study collected a sample of listed companies over a period of ten years from 2013 to 2023. Data collected from the period 2013-2023 in their annual reports, which were published on the Colombo Stock Exchange (CSE). The study used panel data as the type of data. As the data collection method, this study uses a secondary data collection method.

3.2. Population and Sampling Design Process

The study population comprises 290 public listed companies listed on the Colombo Stock Exchange (CSE) in 2023, representing 11 sectors and 20 industry groups. Each company within these sectors served as a unit of analysis. Stratified sampling was employed as the sampling design technique, which divides the population into subgroups or strata based on sector classification. This method ensures the proportional representation of the companies in each sector in the sample. The sampling frame is identified from the CIGS Classification in the CSE, focusing on the list of listed companies as of 2023. Previous studies have utilized similar stratified sampling techniques (Rathnayaka, 2018). The sample size consisted of 40 companies, selected proportionally from each sector using the stratified sampling method. As a result, 400 firm-year observations were included in this study, which is statistically adequate for regression analysis while maintaining internal validity. In order to decrease sampling bias, only firms that had consistent and unbroken reporting were included to allow for comparability across years and to mitigate distortions that occur from missing data. This methodology aligns with previous studies on CSR and sustainability reporting in emerging markets. Secondary data from annual reports, the CSE website, and stand-alone sustainability reports were used for analysis. The sample profile was structured to represent a proportionate number of elements from each subgroup, ensuring comprehensive coverage across sectors.

3.3. Operationalization of variables

SR practices were used as the dependent variable in this study, and the board size, board independence, dual leadership, board ethnicity, and board gender diversity were used as the independent variables. Firm size and firm age were used as control variables.

Table 1- Measurement of independent and control variables

Variable	Measurement	References
Board size (BSZ)	Natural logarithm of the number of directors	(Esa & Anum, 2012; Lim et al., 2007; M. Shamil et al., 2014; Ntim & Soobaroyen, 2013; Said et al., 2009)
Board independence	proportion of independent directors to total directors.	(Barako & Brown, 2008; Chau & Gray, 2010; Eng & Mak, 2003; Haniffa & Cooke, 2002; Haniffa & Cooke, 2005)
Dual leadership (BLD)	Chairman and CEO roles are combined = 0 Chairman and CEO roles are separated 1	(Hafsi & Turgut, 2013; Liao et al., 2015; Said et al., 2009)
Board ethnicity (BE)	Homogeneous board = 0 Heterogeneous board= 1	(Shamil et al., 2014)
Board diversity	Board with female directors = 1 Board without female directors = 2	(Adams & Ferreira, 2009; Glass et al., 2015; Rose, 2007),
Firm size	Natural logarithm of total assets	(Olawale et al., 2017),(Setiadharma & Machali, 2017)
Firm age	Natural logarithm of years since the incorporation	(Ling & Sultana, 2015; Muslih & Marbun, 2020; Younis & Sundarakani, 2019)

3.4. Econometric Identification

$SR_{i,t} = \alpha + \beta_1 BSz_{i,t} + \beta_2 PIND_{i,t} + \beta_3 BE_{i,t} + \beta_4 BD_{i,t} + \beta_5 DL_{i,t} + \varepsilon_{i,t}$

Where:

$SR_{i,t}$ = Sustainability Reporting Practices
$BSz_{i,t}$ = Board Size
$PIND_{i,t}$ = Proportion of Independent Directors
$BE_{i,t}$ = Board Ethnicity
$BD_{i,t}$ = Board Diversity
$DL_{i,t}$ = Dual Leadership Structure
α = Constant.
β = Regression coefficient
ε_{it} = Error term

This econometric model follows prior governance–disclosure literature and is designed to capture both firm-specific governance attributes and temporal variations, making it suitable for panel data analysis.

3.5. Measurement of Sustainability reporting practices

Content analysis, which has been used in previous studies, is used to measure sustainability reporting disclosure, which is based on the GRI guidelines. (Jasman et al., 2023; Suhartini et al., 2024). In the GRI guidelines, the indicators are classified into broader categories, specifically economic, environmental and social, and subsequently further divided into narrower fields, such as economic performance, labour, human rights and environmental protection. (Barako & Brown, 2008).

To measure sustainability reporting practices, the study utilized a disclosure index by employing the checklist method. This approach assigns equal weights to each variable, allocating one mark for the disclosed variables and zero for non-disclosed ones. An unweighted sustainability reporting index was utilized because, in previous studies, weighting itemized disclosures was shown to incorporate subjective bias (Brink et al., 2020; Mayer, 2008). Hence, the checklist method ensures objectivity and consistency in assessing sustainability reporting practices based on the GRI. With 59 indicators covering economic, environmental, and social aspects, the GRI guidelines offer a comprehensive framework for sustainability reporting.

3.6. Data Analysis Technique

This study uses panel regression techniques to analyze the data collected over a period. Diagnostic tests and model assumptions, such as multicollinearity, heteroscedasticity, autocorrelation and cross-sectional dependence, were undertaken to validate the model assumptions. Panel data techniques are augmented to the estimation process to eliminate regression problems, and STATA is considered effective software.

4. RESULTS

4.1. Descriptive Data Analysis

Table 02 presents the descriptive statistics for the dataset, indicating a mean value of 0.444 for Sustainability Reporting (SR) practices, ranging from 0.1525 to 0.9830. This suggests that around 50% of the selected firms publish sustainability reports, potentially influenced by Sri Lanka's strong connection between national ethics and Buddhist philosophy (Thoradeniya et al., 2021). Board characteristics show a mean board size (Ln) of 1.3513, a board independence mean of 0.3884, and a dual leadership mean of 0.87. Most corporate boards exhibit heterogeneous ethnicity. Half of the sample firms had at least one female director, with a mean gender diversity score of 0.5. The average firm size is 10.70, and the mean firm age (Ln) is three years, highlighting the significant role of the board in sustainability disclosure.

Table 02: Descriptive data analysis

Variable		Mean	Std.dev	Min	Max	Observations
SR practices	Overall	0.4444915	0.1620035	0.1525424	0.9830508	N=440
	between		0.1136852	0.2835131	0.835131	n=40
	Within		0.1166842	-0.13664022	0.77226888	T= 11
Board size	Overall	1.351363	0.1617612	1	1.722706	N=440
	between		0.1454296	1.080796	1.722706	n=40
	Within		0.0741531	1.150979	1.5922745	T= 11
Board Independence	Overall	0.3884046	0.1285697	0.125	0.8333333	N=440
	between		0.1053099	0.2329545	0.644251	n=40
	Within		0.0754493	-0.0058464	0.621305	T= 11
Dual Leadership	Overall	0.8704545	0.3361849	0	1	N=440
	between		0.2619369	0	1	n=40
	Within		0.2144114	-0.0386364	1.779545	T= 11
Board Ethnicity	Overall	1	0	1	1	N=440
	between		0	1	1	n=40
	Within		0	1	1	T= 11
Board Diversity	Overall	0.5727273	0.4952456	0	1	N=440
	between		0.4309493	0	1	n=40
	Within		0.2525496	-0.2454545	1.481818	T= 11
Firm size	Overall	10.70754	1.657195	7.172189	15.39579	N=440
	between		1.653425	7.440196	14.8765	n=40
	Within		0.2734146	9.862024	12.05228	T= 11
Firm age	Overall	2.273987	0.412323	1.29203	3.219623	N=440
	between		0.4109649	1.574253	3.201816	n=40
	Within		0.70465	1.991764	2.495623	T= 11

4.2. Inferential data analysis

Before conducting regression analysis, it is essential to select an appropriate model for panel data analysis. The two primary techniques for this are fixed effects (FE) and random effects (RE) models. Unlike the FE model, which assumes that time-invariant characteristics are unique to each entity and cannot be correlated with explanatory variables, the RE model allows for random variations between entities and assumes that the error terms are uncorrelated with the predictors (Bell & Jones, 2015; Hunter & Schmidt, 2000). This study includes categorical variables such as board ethnicity, diversity, and dual leadership and aims to analyze how sustainability reporting evolves. Considering the existence of categorical variables along with the ability to generalize conclusions beyond the sample, it seems that the RE model is the best option (Crouchley, 1995; Gillies et al., 2006; Pfarr et al., 2010). The analysis was performed using STATA, which is appropriate for handling panel data, and the results of the RE model were chosen for further analysis.

In the regression analysis, several diagnostic tests were performed to check whether the data were appropriate for panel regression analysis using the RE model. First, the Breusch and Pagan Lagrangean Multiplier (LM) test for random effects was applied to determine the appropriateness of the RE model over the pooled OLS regression. Furthermore, multicollinearity was assessed using a correlation matrix and the Variance Inflation Factor (VIF) test. VIFs were below the commonly accepted threshold of 10. Hence, the results confirmed that multicollinearity was not an issue, thus ensuring that the independent variables were not excessively correlated.

Heteroskedasticity was examined to determine whether the variance of errors remained constant over time, as non-constant variance (heteroskedasticity) can bias standard errors and affect inferences. The Wald test for groupwise heteroskedasticity was applied; however, owing to a matrix size limitation in STATA, the test could not be executed. Given this limitation, further diagnostic tests, including serial correlation and cross-sectional dependence tests, were conducted. The Wooldridge test was used to detect serial correlations in panel data. The null hypothesis (H_0), which assumes no serial correlation, was rejected because the test yielded a probability value of 0.0000, indicating the presence of serial correlation.

Additionally, cross-sectional dependence was assessed using Pesaran's test, which examines whether the residuals are correlated across entities. The test result revealed a probability value of 0.000, leading to rejection of the null hypothesis (H_0) and confirming the presence of cross-sectional dependence. The presence of cross-sectional dependence implies that residuals from different entities are correlated, potentially biasing standard errors and model estimates.

To address the issues of heteroskedasticity, serial correlation, and cross-sectional dependence, this study employed the panel-corrected standard errors (PCSE) method. Although Driscoll–Kraay standard errors are a recognised alternative for correcting cross-sectional dependence and serial correlation, they are most suitable for panels with a large time dimension (Driscoll & Kraay, 1998). Hence, given the structure of the dataset of this study, which has a relatively larger cross-sectional dimension and a modest time dimension, PCSE is theoretically more appropriate. Furthermore, this approach provides robust standard errors that correct these violations, thereby ensuring reliable statistical inferences. By applying the PCSE method, this study enhances the accuracy of the coefficient estimates and mitigates the impact of model misspecifications, thereby strengthening the validity of the findings.

4.3 Findings of the study & the hypothesis testing

Panel regression analysis is a statistical method used in econometrics and other fields to data sets that include both cross-sectional and time series observations. The regression results for the impact of corporate governance factors on sustainability reporting practices are assessed in the table below.

Table 03

Group Variable: company1						**Number of obs = 440**
Time variable: Year						Number of groups 40
Panels: correlated (balanced)						Obs per group: min= 11
Autocorrelation: no autocorrelation						Avg= 11
Estimated Covariances: 820						Max =11
Estimated autocorrelations = 0						R-squared 0.0855
Estimated coefficients = 7						Wald chi2(6) = 118.58
						Pro > chi2 = 0.000
SR Practices	Coef.	Panel - corrected St. Err	z	P > [z]	[95% conf. Interval]	
Board Size	-.0435756	0.0281655	-1.55	0.122	-.9877	0.116277
Board Independence	0.0992	0.0573826	1.73	0.084	-.0132679	0.2116679
Board diversity	0.01746	0.0082181	2.13	0.034	0.0013598	0.0335743
Dual Leadership	-.0537193	0.0326101	-1.65	0.099	-.1176338	0.0101953
Firm size	0.0195092	0.0039993	4.88	0.000	0.0116707	0.273477
Firm age	-.026304	0.0182958	-1.44	0.151	-.062163	0.0095551
_cons	0.3525	0.1188947	2.97	0.003	.1194943	0.585553

The results of the linear regression model used to test the hypotheses in the study are as follows: The R-squared value given the governance variables used in the model was 0.0855, indicating a small amount of variation in sustainability reporting. However, this low explanatory power is common in disclosure studies (Chau & Gray, 2010; Eng & Mak, 2003; Githaiga & Kosgei, 2023), where reporting practices are shaped by multiple unobserved institutional, cultural, and firm-specific factors.

The coefficient for board size was negative (β = -0.4355, p = 0.122), indicating a statistically insignificant relationship between board size and sustainability reporting practices. finding contradicts previous studies that suggest a positive association (Mohd-Said et al., 2018; Halme and Huse, 1997). However, this aligns with other research findings indicating an insignificant relationship (Budiharta, 2020; Sufian and Zahan, 2013). The null hypothesis (H0) was accepted, implying that larger boards do not significantly impact sustainability reporting practices.

The coefficient of board independence was positive (β = 0.009, p = 0.084), indicating a statistically significant association at the 90% confidence level. This suggests that board independence significantly influences sustainability reporting practices, supporting hypothesis two (H2). This finding is consistent with previous research by Ali (2022) but contradicts the findings of Mohd-Said et al. (2018), who reported a negative relationship.

Board ethnicity was omitted because of collinearity issues, but previous studies have reported mixed findings on the influence of ethnically diverse boards on sustainability reporting (Hafsi & Turgut, 2013; Shamil et al., 2014). This indicates that ethnicity is strongly correlated with other board attributes in Sri Lankan firms—likely due to overlapping demographic and governance structures. The exclusion of this variable limits our ability to formally test the corresponding hypothesis. Hence, the third hypothesis (H3) was not tested in this study because of this omission. The coefficient for board diversity was positive and significant (β = 0.017, p = 0.034) at the 95% confidence level, supporting hypothesis four (H4). This implies that board diversity positively influences sustainability reporting practices, consistent with previous research (Barako & Brown, 2008; Hafsi & Turgut, 2013). However, this contradicts the findings of Fernando and Pandey (2012) and Shamil et al. (2014).

The coefficient for the dual leadership structure was negative (β = -0.053, p = 0.099) but significant at the 90% confidence level. This finding suggests a significant impact on sustainability reporting practices, supporting hypothesis five (H5). This finding contradicts some previous studies (Ntim & Soobaroyen, 2013) but aligns with others (Shamil et al., 2014; Chau & Gray, 2010).

Among the control variables, the natural logarithm of total assets was highly significant at the 95% confidence level, indicating a positive association with sustainability reporting practices. This is consistent with previous research (Akhtaruddin & Haron, 2010; Brammer & Pavelin, 2008). However, firm age was found to be insignificant at the 95% confidence level, consistent with other studies (Elijido-Ten, 2007; R. M. Haniffa & Cooke, 2005b).

In summary, this study found that board independence, board diversity, and dual leadership structure significantly influence sustainability reporting practices in Sri Lankan firms. However, board size and ethnicity were found to have insignificant effects. These findings contribute to the understanding of corporate governance factors affecting sustainability reporting practices and highlight the importance of diverse and independent boards in promoting corporate transparency and accountability. Furthermore, the marginal significance of dual leadership may reflect concentrated ownership structures, while the insignificance of board size may be due to boards being symbolic rather than functional oversight bodies in some firms. These findings underline the importance of contextual and institutional factors in shaping sustainability reporting behaviour.

5. CONCLUSION

This study examined how board characteristics influence sustainability reporting among publicly listed firms in Sri Lanka. Sustainability reporting, aimed at enhancing transparency and brand value, is crucial for companies to demonstrate competitiveness and to support corporate information control processes (Magness, 2006; Hahn & Kühnen, 2013). Drawing on agency theory, legitimacy theory, and resource dependence theory, this study collected longitudinal data from 2012 to 2023, selecting a sample of 40 companies from 290 listed on the Colombo Stock Exchange (CSE) using stratified sampling. Sustainability reporting practices were measured based on Global Reporting Initiative (GRI) guidelines, comprising economic, environmental, and social indicators categorized into 59 subthemes. This study employed a deductive methodology to test hypotheses related to board attributes and sustainability reporting practices. The findings indicated significant associations between board diversity, dual leadership structure, and independent directors with sustainability reporting practices,. Board size was not significantly associated with sustainability reporting practices. The limitations include data accessibility constraints and companies' reluctance to disclose sensitive information. This study's implications suggest the importance of effective internal governance mechanisms, urging policymakers in Sri Lanka and other Asian capital markets to commit to sustainability endeavours and reform disclosure practices accordingly. Further research avenues have identified (Hahn & Kühnen, 2013; Magness, 2006).

This study found that board size did not significantly impact sustainability reporting practices ($p = 0.122$), contradicting previous research. However, board independence significantly influenced sustainability reporting ($\beta = 0.084$, $p < 0.1$), which is consistent with prior findings. Board ethnicity was omitted because of collinearity issues, which deviate from past studies. Board diversity significantly affected sustainability reporting ($p = 0.034$), supporting previous literature. Similarly, the dual leadership structure significantly impacted sustainability reporting ($p = 0.99$), which is consistent with prior research (Said et al., 2009). These results highlight the varying impacts of different board attributes on sustainability reporting practices in Sri Lanka.

This study focuses on management implications arising from board involvement, which are very important to policymakers in the Sri Lankan capital market and other markets in the assigned region. The results of this study encourage companies to make a concerted effort to develop an effective corporate governance mechanism that will inspire and persuade governments to commit to sustainability activities and modify their disclosure procedures accordingly. The study's findings encourage businesses to make a concerted effort to develop an effective corporate governance mechanism that motivates and persuades governments to commit to sustainability activities and modify their disclosure procedures accordingly.

The study emphasizes the importance of including a substantial amount of annual company data for robust generalization of the findings, stressing the need to incorporate firms that do not disclose sustainability information for meaningful comparison. .Future studies may extend this analysis to other emerging Asian economies to understand how contextual differences impact social and environmental disclosure practices. While board characteristics offer insights into sustainability reporting adoption, this study advocates exploring the influence of additional internal and external factors in voluntary reporting contexts.

Despite the contributions, the study has several limitations. Possible measurement bias may stem from the use of self-reported sustainability data, as firms may decide what data to release to preserve legitimacy, negatively impacting the internal validity of such data. Additionally, the sustainability disclosure index used may not fully capture the complexity of CSR and sustainability practices, raising potential construct validity concerns. The small sample size further limits statistical power and reduces the generalizability of the findings. Moreover, omitted firm-level variables such as technological innovation, environmental risk exposure, top management support, and isomorphic pressure may bias coefficient estimates. Furthermore, given the modest explanatory power of the model, the policy implications should be interpreted with caution.

Future research is needed to investigate the effects of ownership structure, board effectiveness, committees, and director profiles on sustainability reporting, as prior research has demonstrated that they affect corporate disclosure. Furthermore, investigations must consider the impact of board size. Because board features explain only the subset of the reasons that motivate enterprises to embrace sustainability reporting, it is necessary to investigate the impact of additional internal and external factors on voluntary sustainability reporting. Future researchers can create a sustainable disclosure index capable of capturing all aspects of sustainability disclosure. However, the inclusion of firms that do not disclose sustainability-related information is also essential for comparison. Thus, it is important to ensure that companies are not excluded from the sample.

References

Abdelkader, M., & Gao, Y. (2023). Uncovering the role of foreign ownership in the relationship between board nationality diversity and ESG. *International Journal of Research in Business and Social Science (2147- 4478)*, *12*(9), 288–302. https://doi.org/10.20525/ijrbs.v12i9.3079

Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*, *94*(2), 291–309. https://doi.org/10.1016/j.jfineco.2008.10.007

Adebayo, A. O., Mbah, F. I., Adamu, D., & Abidoye, O. O. (2023). Board Size, Board Composition and Voluntary Disclosure: Evidence from Listed Manufacturing Firms in Nigeria. *FUDMA Journal of Accounting and Finance Research [FUJAFR]*, *1*(2), 102–112. https://doi.org/10.33003/fujafr-2023.v1i2.36.102-112

Ain, Q. U., Yuan, X., Javaid, H. M., Usman, M., & Haris, M. (2021). Female directors and agency costs: Evidence from Chinese listed firms. *International Journal of Emerging Markets*, *16*(8), 1604–1633. https://doi.org/10.1108/IJOEM-10-2019-0818

Banai, M., & Sama, L. M. (2000). Ethical Dilemmas in MNCs' International Staffing Policies A Conceptual Framework. *Journal of Business Ethics*, *25*(3), 221–235. https://doi.org/10.1023/A:1006079511331

Barako, D. G., & Brown, A. M. (2008). Corporate social reporting and board representation: Evidence from the Kenyan banking sector. *Journal of Management & Governance*, *12*(4), 309–324. https://doi.org/10.1007/s10997-008-9053-x

Bartolacci, F., Bellucci, M., Corsi, K., & Soverchia, M. (2022). A Systematic Literature Review of Theories Underpinning Sustainability Reporting in Non-financial Disclosure. In L. Cinquini & F. De Luca (Eds.), *Non-financial Disclosure and Integrated Reporting* (pp. 87–113). Springer International Publishing. https://doi.org/10.1007/978-3-030-90355-8_4

Bell, A., & Jones, K. (2015). Explaining Fixed Effects: Random Effects Modeling of Time-Series Cross-Sectional and Panel Data. *Political Science Research and Methods*, *3*(1), 133–153. https://doi.org/10.1017/psrm.2014.7

Birth, G., Illia, L., Lurati, F., & Zamparini, A. (2008). Communicating CSR: Practices among Switzerland's top 300 companies. *Corporate Communications: An International Journal*, *13*(2), 182–196. https://doi.org/10.1108/13563280810869604

Boateng, R. N., Tawiah, V., & Tackie, G. (2022). Corporate governance and voluntary disclosures in annual reports: A post-International Financial Reporting Standard adoption evidence from an emerging capital market. *International Journal of Accounting & Information Management*, *30*(2), 252–276. https://doi.org/10.1108/IJAIM-10-2021-0220

Brink, M., Hengeveld, G. M., & Tobi, H. (2020). Interdisciplinary measurement: A systematic review of the case of sustainability. *Ecological Indicators*, *112*, 106145. https://doi.org/10.1016/j.ecolind.2020.106145

Chau, G., & Gray, S. J. (2010). Family ownership, board independence and voluntary disclosure: Evidence from Hong Kong. *Journal of International Accounting, Auditing and Taxation*, *19*(2), 93–109. https://doi.org/10.1016/j.intaccaudtax.2010.07.002

Clarke, B. J. (2015). The Role of Board Directors in Promoting Environmental Sustainability. In B. Sjafjell & J. Richardson (Eds.), *Company Law and Sustainability: Legal Barriers and Opportunities*. Cambridge University Press.

Crouchley, R. (1995). A Random-Effects Model for Ordered Categorical Data. *Journal of the American Statistical Association*, *90*(430), 489–498. https://doi.org/10.1080/01621459.1995.10476540 de Villiers, C., & Marques, A. (2016). Corporate social responsibility, country-level predispositions, and the consequences of choosing a level of disclosure. *Accounting and Business Research*, *46*(2), 167–195. https://doi.org/10.1080/00014788.2015.1039476

De Villiers, C., Naiker, V., & Van Staden, C. J. (2011). The Effect of Board Characteristics on Firm Environmental Performance. *Journal of Management*, *37*(6), 1636–1663. https://doi.org/10.1177/0149206311411506

Driscoll, J. C., & Kraay, A. C. (1998). Consistent Covariance Matrix Estimation with Spatially Dependent Panel Data. *Review of Economics and Statistics*, *80*(4), 549–560. https://doi.org/10.1162/003465398557825

Eisenhardt, K. M. (1989). Agency Theory: An Assessment and Review. *The Academy of Management Review*, *14*(1), 57. https://doi.org/10.2307/258191

Eng, L. L., & Mak, Y. T. (2003). Corporate governance and voluntary disclosure. *Journal of Accounting and Public Policy*, *22*(4), 325–345. https://doi.org/10.1016/S0278-4254(03)00037-1

Esa, E., & Anum, M. G. N. (2012). Corporate social responsibility and corporate governance in Malaysian government-linked companies. *Corporate Governance: The International Journal of Business in Society*, *12*(3), 292–305. https://doi.org/10.1108/14720701211234564

Farisyi, S., Musadieq, M. A., Utami, H. N., & Damayanti, C. R. (2022). A Systematic Literature Review: Determinants of Sustainability Reporting in Developing Countries. *Sustainability*, *14*(16), 10222. https://doi.org/10.3390/su141610222

Friske, W., Nikolov, A. N., & Morgan, T. (2024). Making the grade: An analysis of sustainability reporting standards and Global Reporting Initiative adherence ratings. *Corporate Social Responsibility and Environmental Management*, *31*(3), 2098–2108. https://doi.org/10.1002/csr.2686

Gennari, F. (2016). Women on boards and corporate social responsibility. *Corporate Board Role Duties and Composition*, *12*(1–1), 101–108. https://doi.org/10.22495/cbv12i1c1art3

Gillies, C. S., Hebblewhite, M., Nielsen, S. E., Krawchuk, M. A., Aldridge, C. L., Frair, J. L., Saher, D. J., Stevens, C. E., & Jerde, C. L. (2006). Application of random effects to the study of resource selection by animals. *Journal of Animal Ecology*, *75*(4), 887–898. https://doi.org/10.1111/j.1365-2656.2006.01106.x

Girella, L., Zambon, S., & Rossi, P. (2022). Board characteristics and the choice between sustainability and integrated reporting: A European analysis. *Meditari Accountancy Research*, *30*(3), 562–596. https://doi.org/10.1108/MEDAR-11-2020-1111

Githaiga, P. N., & Kosgei, J. K. (2023). Board characteristics and sustainability reporting: A case of listed firms in East Africa. *Corporate Governance: The International Journal of Business in Society*, *23*(1), 3–17. https://doi.org/10.1108/CG-12-2021-0449

Glass, H. C., Costarino, A. T., Stayer, S. A., Brett, C. M., Cladis, F., & Davis, P. J. (2015). Outcomes for Extremely Premature Infants. *Anesthesia & Analgesia*, *120*(6), 1337. https://doi.org/10.1213/ANE.0000000000000705

Hafsi, T., & Turgut, G. (2013). Boardroom Diversity and its Effect on Social Performance: Conceptualization and Empirical Evidence. *Journal of Business Ethics*, *112*(3), 463–479. https://doi.org/10.1007/s10551-012-1272-z

Hahn, R., & Kühnen, M. (2013). Determinants of sustainability reporting: A review of results, trends, and opportunities in an expanding field of research. *Journal of Cleaner Production*, *59*, 5–21. https://doi.org/10.1016/j.jclepro.2013.07.005

Haniffa, R., & Cooke, T. (2002). Culture, Corporate Governance and Disclosure in Malaysian Corporations. *Abacus*, *38*, 317–349. https://doi.org/10.1111/1467-6281.00112

Haniffa, R. M., & Cooke, T. E. (2005). The impact of culture and governance on corporate social reporting. *Journal of Accounting and Public Policy*, *24*(5), 391–430. https://doi.org/10.1016/j.jaccpubpol.2005.06.001

Hariram, N. P., Mekha, K. B., Suganthan, V., & Sudhakar, K. (2023). Sustainalism: An Integrated Socio-Economic-Environmental Model to Address Sustainable Development and Sustainability. *Sustainability*, *15*(13), 10682. https://doi.org/10.3390/su151310682

Hunter, J. E., & Schmidt, F. L. (2000). Fixed Effects vs. Random Effects Meta-Analysis Models: Implications for Cumulative Research Knowledge. *International Journal of Selection and Assessment*, *8*(4), 275–292. https://doi.org/10.1111/1468-2389.00156

Jasman, J., Wijayanti, I., Faculty of Economics and Business, Perbanas Institute, Mawardi, R., Faculty of Economics and Business, Perbanas Institute, Wibisono, O., & Faculty of Economics and Business, Perbanas Institute. (2023). The Effect of Board Size, Board Independence, Board Diversity and CSR Committee on Sustainability Reporting. *JOURNAL OF ECONOMICS, FINANCE AND MANAGEMENT STUDIES*, *06*(11). https://doi.org/10.47191/jefms/v6-i11-51

Kathy Rao, K., Tilt, C. A., & Lester, L. H. (2012). Corporate governance and environmental reporting: An Australian study. *Corporate Governance: The International Journal of Business in Society*, *12*(2), 143–163. https://doi.org/10.1108/14720701211214052

Kiliç, M., Kuzey, C., & Uyar, A. (2015). The impact of ownership and board structure on Corporate Social Responsibility (CSR) reporting in the Turkish banking industry. *Corporate Governance*, *15*(3), 357–374. https://doi.org/10.1108/CG-02-2014-0022

Kolk, A., & Van Tulder, R. (2004). Ethics in international business: Multinational approaches to child labor. *Journal of World Business*, *39*(1), 49–60. https://doi.org/10.1016/j.jwb.2003.08.014

Lee, H. (2023). Drivers of green supply chain integration and green product innovation: A motivation-opportunity-ability framework and a dynamic capabilities perspective. *Journal of Manufacturing Technology Management*, *34*(3), 476–495. https://doi.org/10.1108/JMTM-09-2022-0311

Liao, L., Luo, L., & Tang, Q. (2015). Gender diversity, board independence, environmental committee and greenhouse gas disclosure. *The British Accounting Review*, *47*(4), 409–424. https://doi.org/10.1016/j.bar.2014.01.002

Lim, S., Matolcsy, Z., & Chow, D. (2007). The Association between Board Composition and Different Types of Voluntary Disclosure. *European Accounting Review*, *16*(3), 555–583. https://doi.org/10.1080/09638180701507155

Ling, T. C., & Sultana, N. (2015). Corporate social responsibility: What motivates management to disclose? *Social Responsibility Journal*, *11*(3), 513–534. https://doi.org/10.1108/SRJ-09-2013-0107

M. Shamil, M., M. Shaikh, J., Ho, P.-L., & Krishnan, A. (2014). The influence of board characteristics on sustainability reporting: Empirical evidence from Sri Lankan firms. *Asian Review of Accounting*, *22*(2), 78–97. https://doi.org/10.1108/ARA-09-2013-0060

Magness, V. (2006). Strategic Posture, Financial Performance and Environmental Disclosure: An Empirical Test of Legitimacy Theory. *Accounting, Auditing & Accountability Journal*, *19*, 540–563. https://doi.org/10.1108/09513570610679128

Mayer, A. L. (2008). Strengths and weaknesses of common sustainability indices for multidimensional systems. *Environment International*, *34*(2), 277–291. https://doi.org/10.1016/j.envint.2007.09.004

McHugh, P. J., & Perrault, E. (2018). Accelerating time: The effect of social pressures and regulation on board gender diversity post-IPO. *Journal of General Management*, *43*(3), 95–105. https://doi.org/10.1177/0306307017752407

Muslih, M., & Marbun, S. O. (2020). The Effect of Risk Management, Firm Age, and Firm Size on the Performance of Banking Companies Registered in Indonesia Stock Exchange Moderated By Corporate Governance and Budget as Control Variable. *International Journal of Science and Society*, *2*(4), Article 4. https://doi.org/10.54783/ijsoc.v2i4.211

Muttakin, M. B., & Subramaniam, N. (2015). Firm ownership and board characteristics: Do they matter for corporate social responsibility disclosure of Indian companies? *Sustainability Accounting, Management and Policy Journal*, *6*(2), 138–165. https://doi.org/10.1108/SAMPJ-10-2013-0042

Newson, M., & Deegan, C. (2002). Global expectations and their association with corporate social disclosure practices in Australia, Singapore, and South Korea. *The International Journal of Accounting*, *37*(2), 183–213. https://doi.org/10.1016/S0020-7063(02)00151-6

Ntim, C. G., & Soobaroyen, T. (2013). Black economic empowerment disclosures by South African listed corporations: The influence of ownership and board characteristics. *Journal of Business Ethics*, *116*(1), 121–138.

Olawale, L. S., Ilo, B. M., & Lawal, F. K. (2017). The effect of firm size on performance of firms in Nigeria. *Aestimatio: The IEB International Journal of Finance*, *15*, 68–87. https://dialnet.unirioja.es/servlet/articulo?codigo=6637820

Oluwatobi Timothy Soyombo, Olusegun Gbenga Odunaiya, Chinelo Emilia Okoli, Gloria Siwe Usiagu, & Ifeanyi Onyedika Ekemezie. (2024). Sustainability reporting in corporations: A comparative review of practices in the USA and Europe. *GSC Advanced Research and Reviews*, *18*(2), 204–214. https://doi.org/10.30574/gscarr.2024.18.2.061

Oriaifoh, C. L., & Lodikero, O. (2025). Corporate Governance Mechanisms and Sustainability Reporting of Listed Firms in a Developing Country: A Review of Literature. *International Journal of Research and Innovation in Social Science, 2025*, *9*(4), 5545–5556.

Pfarr, C., Schmid, A., & Schneider, U. (2010). Estimating Ordered Categorical Variables Using Panel Data: A Generalized Ordered Probit Model with an Autofit Procedure. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1624954

Reverte, C. (2009). Determinants of Corporate Social Responsibility Disclosure Ratings by Spanish Listed Firms. *Journal of Business Ethics*, *88*(2), 351–366. https://doi.org/10.1007/s10551-008-9968-9

Rose, C. (2007). Does female board representation influence firm performance? The Danish evidence. *Corporate Governance: An International Review*, *15*(2), 404–413. https://doi.org/10.1111/j.1467-8683.2007.00570.x

Said, R., Hj Zainuddin, Y., & Haron, H. (2009). The relationship between corporate social responsibility disclosure and corporate governance characteristics in Malaysian public listed companies. *Social Responsibility Journal*, *5*(2), 212–226. https://doi.org/10.1108/17471110910964496

Setiadharma, S., & Machali, M. (2017). The Effect of Asset Structure and Firm Size on Firm Value with Capital Structure as Intervening Variable. *Journal of Business & Financial Affairs*, *06*. https://doi.org/10.4172/2167-0234.1000298

Suhartini, D., Tjahjadi, B., & Fayanni, Y. (2024). Impact of sustainability reporting and governance on firm value: Insights from the Indonesian manufacturing sector. *Cogent Business & Management*, *11*(1), 2381087. https://doi.org/10.1080/23311975.2024.2381087

Swarnapali, R. (2020). Consequences of corporate sustainability reporting: Evidence from an emerging market. *International Journal of Law and Management*, *62*(3), 243–265. https://doi.org/10.1108/IJLMA-12-2017-0294

Thoradeniya, P., Ferreira, A., Lee, J., & Tan, R. (2021). The diffusion of sustainability key performance indicators in a developing country context. *Accounting, Auditing & Accountability Journal*, *34*(5).

Van Der Walt, N., & Ingley, C. (2003). Board Dynamics and the Influence of Professional Background, Gender and Ethnic Diversity of Directors. *Corporate Governance: An International Review*, *11*(3), 218–234. https://doi.org/10.1111/1467-8683.00320

Wang, M.-C. (2017). The Relationship between Firm Characteristics and the Disclosure of Sustainability Reporting. *Sustainability*, *9*(4), 624. https://doi.org/10.3390/su9040624

Wijethilake, C., Ekanayake, A., & Perera, S. (2015). Board involvement in corporate performance: Evidence from a developing country. *Journal of Accounting in Emerging Economies*, *5*(3), 250–268. https://doi.org/10.1108/JAEE-12-2012-0050

Younis, H., & Sundarakani, B. (2019). The impact of firm size, firm age and environmental management certification on the relationship between green supply chain practices and corporate performance. *Benchmarking: An International Journal*, *27*(1), 319–346. https://doi.org/10.1108/BIJ-11-2018-0363

Zhang, L. (2012). Board demographic diversity, independence, and corporate social performance. *Corporate Governance: The International Journal of Business in Society*, *12*(5), 686–700. https://doi.org/10.1108/14720701211275604