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Research Article

Environmental Disclosure and Firm Value in Emerging Markets: Insights from Sri Lankan Listed Companies.

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Abstract

The growing emphasis on environmental, social, and governance (ESG) criteria has increased pressure on firms to disclose environmental information. However, evidence on how corporate environmental disclosure (CED) affects firm value remains limited in emerging markets such as Sri Lanka, particularly in the post-COVID-19 period. This study examines whether voluntary CED enhances market valuation in a context where reporting practices are still evolving. Using a quantitative approach, panel data were collected from 100 companies listed on the Colombo Stock Exchange between 2020 and 2024. Environmental disclosure was measured through content analysis of annual reports based on the Global Reporting Initiative framework, while firm value was proxied by Tobin's Q. Firm size, leverage, profitability, sales growth, and age were included as control variables. Fixed-effects panel regression results reveal a significant positive relationship between environmental disclosure and firm value. The findings support stakeholder and legitimacy theories, suggesting that transparent environmental reporting enhances investor confidence and market credibility. The study highlights the strategic importance of environmental disclosure for firms and policymakers in emerging markets.

Introduction

Corporate sustainability reporting has become a crucial tool for promoting a sustainable global economy, as it integrates traditional financial performance measures with broader environmental, social, and governance (ESG) objectives (Padilla-Rivera et al., 2025). Central to this reporting is Corporate Environmental Disclosure (CED), which enables firms to communicate environmental performance and demonstrate how risks associated with environmental impacts are managed (Wilmshurst & Frost, 2000). By providing this information, firms can mitigate both financial and operational risks associated with environmental issues (Jamil & Khan, 2024; Wilmshurst & Frost, 2000). The increasing importance of ESG criteria in investment decisions further amplifies the significance of CED, as transparent reporting can enhance investor confidence and reflect long-term resilience (Dhaliwal et al., 2011; Swarnapali, 2020).

Although global research has examined the relationship between CED and firm value, evidence from Sri Lanka remains scarce. The COVID-19 pandemic disrupted economic activity and altered stakeholder priorities, highlighting the need to reassess whether CED continues to affect firm value in emerging markets (Nuskiya et al., 2021). Moreover, the role of firm characteristics, specifically firm size, leverage, return on equity, sales growth, and firm age, as control variables in this relationship remains underexplored, particularly in smaller markets such as Sri Lanka.

The theoretical basis for expecting a positive link between CED and firm value stems from signaling and legitimacy theories. Environmental disclosure reduces information asymmetry, builds stakeholder trust, and signals proactive management of environmental risks, potentially increasing market valuation (Hassel et al., 2005; Plumlee et al., 2015). Yet, empirical findings are mixed. Some studies demonstrate a positive and statistically significant effect of CED on firm value (Prado-Lorenzo & Garcia-Sanchez, 2010; Yang et al., 2020; Zhang et al., 2020). Other research suggests that high levels of disclosure may be interpreted as costly or symbolic, especially in contexts where reporting practices are not fully institutionalized, resulting in minimal or even negative effects on valuation (Fan et al., 2020; Matthews et al., 2025).

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Sri Lanka provides a unique context for this investigation. CED in Sri Lanka is largely voluntary and generally at an early stage compared to developed countries, where mandatory frameworks have led to more widespread disclosure (Inun Jariya, 2015; Nuskiya et al., 2021). Adoption of global reporting standards, such as the Global Reporting Initiative (GRI), remains limited among firms listed on the Colombo Stock Exchange (CSE), often producing disclosures that are symbolic rather than substantive (Swarnapali, 2020). Empirical evidence on the impact of CED in Sri Lanka remains limited and often contradictory, particularly regarding the influence of firm size, profitability, and firm age on firm value, highlighting the need for updated research focused on listed companies in the country (Khlif et al., 2015; Nuskiya et al., 2021).

Despite these insights, a clear research gap exists: it remains uncertain whether voluntary CED in an under-regulated, emerging market context, particularly post-COVID-19, enhances firm value while accounting for firm-specific characteristics. Building on this gap, the present study addresses the research question is "What is the effect of voluntary Corporate Environmental Disclosure on the firm value of Sri Lankan listed firms, after controlling for firm characteristics such as size, leverage, return on equity, sales growth, and firm age?".

Accordingly, this study aims to investigate the impact of CED on firm value in Sri Lanka, using Tobin's Q as the primary measure of firm valuation, while controlling for firm size, leverage, return on equity, sales growth, and firm age. This objective addresses the paucity of evidence in the Sri Lankan context and contributes to the literature by providing updated empirical insights in an underexplored market. By analyzing environmental reporting practices, the research seeks to provide robust evidence on the role of CED in enhancing firm value, improving stakeholder engagement, and reducing legitimacy gaps. Such insights are critical to supporting a sustainable and climate-resilient economic transition in Sri Lanka.

Literature Review

The literature review is divided into theoretical and empirical sub-sections. The theoretical review focuses on stakeholder theory, legitimacy theory, and Neo-Institutional Theory to explain the relationship between CED and firm value. The empirical review draws on studies from emerging and developed markets and proposes hypotheses based on the evidence.

Theoretical Review

There are several well-established theoretical frameworks, such as stakeholder theory, legitimacy theory, Neo-Institutional Theory, etc., that explain the association between CED and firm value (Moroney et al., 2012). The stakeholder theory frequently explains that environmental disclosure has a strong positive link with firm value, commonly measured using Tobin's Q (Fan et al., 2020; Ghosh, 2025). Transparency in environmental practices allows companies to reduce uncertainty, enhance investor confidence, and foster trust, factors that are often reflected in higher market valuations (Arshad et al., 2025). High-quality, forward-looking disclosures are particularly effective, signaling a firm's long-term commitment to sustainability and accountability (Cormier et al., 2011). Recent studies support this perspective: environmental accounting disclosures have been found to increase firm value by aligning firms with stakeholder expectations (Fan et al., 2020).

In contrast, legitimacy theory emphasizes normative pressures, suggesting that disclosures are a mechanism to align firm behaviour with societal expectations, positive environmental initiatives enhance legitimacy and firm value, whereas poor environmental performance can erode legitimacy and market valuation (Bani-Khaled et al., 2025; Khlif et al., 2015). While both theories address external perceptions, Stakeholder Theory frames disclosure as a strategic tool for relationship management, whereas Legitimacy Theory emphasizes social compliance.

Neo-Institutional Theory adds to these perspectives by emphasizing how institutional norms and peer behaviour influence disclosure practices. Firms may provide symbolic disclosures to simply signal compliance, or substantive disclosures that demonstrate genuine environmental improvements, with markets generally rewarding the latter when they are credible and high-quality (Cho et al., 2015). Importantly, combining these perspectives suggests that the effect of environmental disclosure on firm value is not automatic; it depends on factors such as the quality and credibility of the information, the firm's strategic intent, industry conditions, ownership structure, and stakeholder expectations (Arshad et al., 2025; Fan et al., 2020; Ghosh, 2025; Plumlee et al., 2015).

Empirical findings in the Sri Lankan context provide robust support for this theoretical framework, demonstrating a statistically significant and positive relationship between CED and firm value(Nuskiya et al., 2021; Viduranga & Fernando, 2022). Stakeholder Theory elucidates that investors respond favorably to firms providing high-quality CED because transparency reduces information asymmetry and uncertainty, signaling proactive management of environmental risks and a commitment to long-term sustainability (Nawarathne et al., 2025; Viduranga & Fernando, 2022). Conversely, Legitimacy Theory accounts for broader societal pressures in emerging markets where firms may utilize disclosure symbolically to bridge the "legitimacy gap" and secure continued social acceptance, even when substantive reporting practices are still in their early stages (Inun Jariya, 2015; Nuskiya et al., 2021). The application of these frameworks is uniquely salient in Sri Lanka due to the nation's steady industrial growth and economic recovery following the end of the armed conflict, which has heightened public awareness of ecological imbalances and industrial pollution (Swarnapali, 2020) . In this specific socio-economic landscape, CED functions as both a strategic mechanism to build investor confidence and a vital tool to align corporate behavior with the evolving environmental accountability expectations of society and regulators.

Empirical Review and Hypotheses Development

Over the past decades, scholars exploring the relationship between CED and firm value has grown considerably. Scholars have frequently used Tobin's Q as the primary indicator of market valuation in this context. Evidence suggests that firms that actively engage in high-quality environmental reporting often achieve higher Tobin's Q (Arshad et al., 2025; Gerged et al., 2021). Furthermore, voluntary reporting appears to reduce perceived investment risks, which can lower the cost of equity and, indirectly, enhance firm value (Dhaliwal et al., 2011).

However, the relationship between environmental disclosure and firm value is not always straightforward. In several emerging markets, the costs associated with disclosure or the reporting of unfavorable outcomes, such as high pollution levels or environmental penalties, have been observed to decrease firm value. For instance, companies that report environmental fines or elevated carbon emissions frequently experience negative reactions from investors, which often translate into lower Tobin's Q (Bani-Khaled et al., 2025).

In addition to environmental disclosure, firm-specific characteristics are expected to influence its relationship with firm value. Larger firms may have more resources to implement sustainability initiatives and absorb disclosure costs (Gidage et al., 2025). Firms with higher financial leverage may face constraints that affect investor perceptions (Wu et al., 2025). Profitability and market performance may further shape how environmental disclosures are valued (Dhaliwal et al., 2011). Firm age may indicate stability, experience, and credibility, influencing investor response (Bani-Khaled et al., 2025). Based on these insights, the study proposes the following hypothesis:

H_1- Corporate environmental disclosure is positively associated with firm value, controlling for firm size, leverage, return on equity, sales growth, and firm age.

The conceptual framework of this study illustrates the hypothesized relationship between CED and firm value (Tobin's Q), incorporating several firm-specific control variables. It is assumed that higher levels of CED improve firm transparency, stakeholder trust, and legitimacy, which in turn positively influence firm value. However, firm value may also be affected by firm-specific characteristics such as firm size, leverage, profitability, sales growth, and firm age. These variables are therefore included as control factors to isolate the effect of CED on firm value. As shown in Figure 1, CED is the independent variable influencing firm value (the dependent variable), while firm size, leverage, return on equity, sales growth, and firm age serve as control variables that may moderate this relationship.

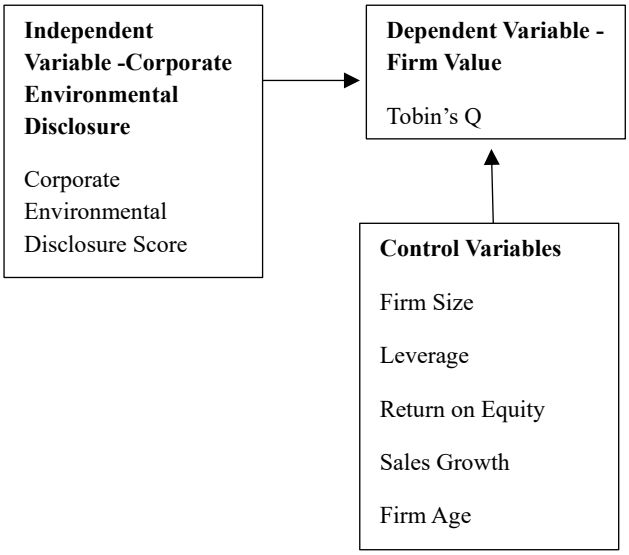

Figure 1: Conceptual Framework
Source: Own Elaboration

Research Gap

Despite extensive global research on the relationship between CED and firm value, significant gaps remain in understanding this linkage within under-regulated emerging markets such as Sri Lanka, particularly in the post-COVID-19 period. Existing studies largely focus on developed economies with mandatory disclosure regimes, leaving a paucity of empirical evidence in contexts where environmental reporting remains voluntary and institutionally weak. Moreover, previous findings are inconsistent; some suggest that CED enhances firm value through stakeholder confidence and signaling effects, while others find negligible or even negative outcomes, especially when disclosures are symbolic rather than substantive. Furthermore, limited attention has been given to how firm-specific factors such as size, leverage, profitability, and age control variables with CED to shape firm value. Accordingly, this study addresses these gaps by examining whether voluntary CED contributes to firm value in the Sri Lankan context during the post-pandemic recovery period, while controlling for key firm-level characteristics.

Methodology

This study adopted a quantitative research design to explore how CED influences firm value in Sri Lanka, an emerging market. To achieve a representative sample while maintaining a dataset of manageable size for detailed analysis, a random selection of 100 companies was drawn from the 286 firms listed on the CSE as of 30th June 2025. This sample size was determined to provide sufficient statistical power to detect medium effect sizes, consistent with established guidelines for comparative and longitudinal analyses in environmental accounting (Eakpisankit & Pirzada, 2025). The random selection process was applied overall to enhance representativeness and to minimize potential selection bias (Inun Jariya, 2015). By including both high-profile, environmentally sensitive industries and low-profile sectors, the study captures the diversity of the Sri Lankan corporate landscape (Nuskiya et al., 2021). The study relied on secondary data collected from the annual reports of these companies for the period 2020 to 2024, providing a consistent and reliable dataset to examine the impact CED on firm value in Sri Lanka.

CED, the independent variable in this study, was measured through content analysis of corporate annual reports. Each environmental disclosure item was coded using a binary system, where a score of 1 indicated disclosure and 0 indicated non-disclosure, in accordance with the GRI framework (Nuskiya et al., 2021). The total corporate environmental disclosure score for each firm was calculated as the sum of all disclosed items, with a maximum possible score of 34. Formally, the score was expressed as:

$$CED = \frac{\sum_{i=1}^{n} di}{n}$$

where CED represents the corporate environmental disclosure score, denotes the individual disclosure item, and n is the total number of items assessed. This scoring system provides a systematic and replicable method for quantifying

environmental disclosures, allowing for meaningful comparisons across firms. While content analysis has inherent limitations, such as focusing primarily on textual reporting and emphasizing quantity rather than quality, the reliability of the measurement was enhanced through structured coding procedures and repeated cross-checking. These steps ensured consistency and rigor, facilitating a robust and replicable assessment of environmental disclosure across the sampled companies.

Nevertheless, while this binary index effectively captures the breadth of disclosure, it primarily reflects quantity rather than the depth or quality of reporting. Recognizing this limitation, future studies may adopt weighted or ordinal scoring approaches to differentiate between qualitative narratives, quantitative indicators, and financial environmental disclosures, thereby providing a more comprehensive evaluation of disclosure quality(Gerged et al., 2021).

Firm value, the dependent variable, was measured using Tobin's Q, which is calculated as the ratio of the sum of market value of equity and total debt to the book value of total assets (Swarnapali, 2020). Tobin's Q captures investor perceptions of a firm's long-term profitability, is forward-looking, and is less susceptible to distortions caused by accounting policies compared to traditional accounting-based measures.

To control for other factors influencing firm value, the analysis included several firm-specific variables: firm size, measured as the natural logarithm of total assets; leverage, defined as the ratio of total debt to total assets; profitability, measured by return on equity (ROE); sales growth, calculated as the percentage change in one-year sales; and firm age, measured as the natural logarithm of years since inception (Swarnapali, 2020). These control variables were incorporated to isolate the effect of CED on firm value.

Table 1: Summary of Variables

Variable	Operational Definition
Corporate Environmental Disclosure	Measured via content analysis of corporate annual reports using a binary system (1=disclosure, 0=non-disclosure) based on the GRI framework; total score ranges from 0 to 34
Firm Size	Natural logarithm of total assets
Leverage	Total debt divided by total assets
Return on Equity	Net income divided by total equity
Sales Growth	Percentage change in one-year sales
Firm Age	Natural logarithm of years since inception
Tobin's Q	(Market Value of Equity + Book Value of Debt) / Total Assets (Book Value)

Source: Own Elaboration

Data analysis was carried out using STATA software in three stages. First, descriptive statistics were computed to summarize the key characteristics of the sample, including averages, variation, and range for CED scores, Tobin's Q, and the control variables. Second, correlation analysis examined the relationships among the variables, allowing the identification of the strength and direction of these relationships and highlighting any potential multicollinearity. Finally, regression analysis was conducted to test whether CED had a significant impact on firm value while controlling firm-specific factors.

Robust standard errors were applied to correct for potential heteroskedasticity, ensuring the reliability of coefficient estimates. In addition, potential endogeneity and reverse causality between CED and firm value are acknowledged. To partially address this, lagged independent variables were considered, and sensitivity analyses were conducted. Although formal instrumental variable tests were not performed, these steps enhance confidence in the estimated relationships and highlight that causal claims should be interpreted cautiously.

This approach ensures a rigorous, systematic, and reliable evaluation of the relationship between CED and firm value in an emerging market setting, while acknowledging the limitations posed by potential reverse causality and endogeneity.

Findings and Discussion

Descriptive Analysis

Table 2 reports the descriptive statistics for 500 firm-year observations from Sri Lankan listed companies between 2020 and 2024. Firm value, measured using Tobin's Q, records a mean of 1.02 with values ranging from 0.42 to 2.27. On average, this indicates that the market value of equity plus debt is slightly higher than the book value of assets, suggesting that investors ascribe modest growth potential to Sri Lankan firms. These results are comparable to Swarnapali (2020), who also found Tobin's Q values in the range of 0.9 to 1.1 for Sri Lankan firms, reflecting a consistent market environment in which firms achieve only limited valuation premiums compared to developed markets where Tobin's Q often exceeds 2.0 (e.g., Chung & Pruitt, 1994; Claessens et al., 2002).

CED, assessed via content analysis of annual reports based on the GRI framework, has a mean score of 0.21, indicating that firms disclose on average 21% of the possible 34 environmental items. This result confirms that environmental disclosure is at a relatively early stage in Sri Lanka. For comparison, Gerged et al. (2018) reported a mean disclosure level of 13% in the MENA region, while Gerged et al. (2020) observed a 14% mean disclosure level in Kuwait.

Table 2: Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
Tobin's Q	500	1.02	0.58	0.42	2.27
Corporate Environmental Disclosure	500	0.21	0.21	0.00	0.79
Firm Size	500	21.18	2.60	15.74	24.99
Leverage	500	0.23	0.21	0.01	0.62
Return on Equity	500	0.16	0.12	- 0.04	0.37
Sales Growth	500	0.16	0.24	- 0.17	0.61
Firm Age	500	3.70	0.42	3.09	4.47

Source: Based on Secondary Data

In contrast, developed markets demonstrate much higher engagement, with average disclosure levels of 64% in the UK (Barbu et al., 2014) and over 80% in the US (Matisoff et al., 2013). This suggests that although Sri Lanka performs slightly better than some regional peers, disclosure practices remain substantially lower than in developed economies, consistent with the argument that reporting in emerging markets is often symbolic and legitimacy-driven (Habbash, 2016; Khlif et al., 2015).

Firm characteristics provide additional insights. The mean firm size (log of total assets) of 21.18 indicates that the sample includes relatively large firms by Sri Lankan standards, but still considerably smaller than firms in developed markets where mean log assets typically exceed 23 (Nuskiya et al., 2021). Average leverage of 0.23 suggests conservative capital structures, aligning with Abor (2008), who found that firms in emerging economies often limit debt exposure due to underdeveloped capital markets and high borrowing costs.

Firm performance, measured by return on equity (ROE), averages 16%. This is consistent with Swarnapali (2020), who documented profitability averages around 15 - 18% for CSE-listed firms. However, the negative minimum of –0.04 highlights the financial vulnerability of some companies. Sales growth averages 16%, reflecting moderate expansion, though the wide range (-17% to 61%) suggests heterogeneity between declining firms and those with aggressive revenue growth strategies.

Firm age averages 3.70 in log years, equivalent to roughly 40 years since inception. This indicates that the Sri Lankan market is dominated by long-established firms, which is similar to findings in Gerged et al. (2021), who emphasized the role of firm maturity in shaping disclosure in emerging economies. Compared with younger markets such as parts of Africa, where many firms are less than 20 years old (Eljayash et al., 2012), Sri Lanka's firms show higher maturity, which could support both stability and stakeholder pressure for improved disclosure.

In sum, these descriptive results suggest that while Sri Lankan firms are generally profitable, long-standing, and conservatively financed, their CED practices remain underdeveloped compared to international benchmarks. This gap reflects the voluntary nature of disclosure and weaker institutional enforcement in Sri Lanka. The findings are consistent with prior evidence from emerging economies, highlighting both the gradual improvement of reporting practices and the persistence of significant cross-country differences.

Correlation Analysis

Table 3: Correlation Matrix

Variable	Tobin's Q	Corporate Environmental Disclosure	Firm Size	Leverage	Return on Equity	Sales Growth	Firm Age
Tobin's Q	1						
Corporate Environmental Disclosure	0.16***	1					
Firm Size	- 0.06	0.05	1				
Leverage	-0.08*	0.09*	0.18***	1			
Return on Equity	0.36***	0.05	0.03	-0.35***	1		
Sales Growth	0.12***	- 0.01	0.01	0.02	0.32***	1	
Firm Age	0.03	- 0.13***	0.04	0.16***	0.02	-0.03	1

Note:

- Table entries are Pearson correlation coefficients.
- ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Source: Based on Secondary Data

The Pearson correlation matrix presented in Table 3 reveals several noteworthy relationships among the variables. CED is positively correlated with Tobin's Q ($r = 0.16$, $p < 0.01$), indicating that firms with higher levels of environmental disclosure tend to have slightly higher market valuations. This positive relationship aligns with evidence from emerging markets, suggesting that investors may reward transparency and proactive sustainability reporting, viewing it as a signal of long-term value creation and risk management (Gerged et al., 2021; Khlif et al., 2015).

Firm size shows a weak and non-significant negative correlation with Tobin's Q ($r = - 0.06$), implying that larger firms are not necessarily valued higher by the market in this context. Leverage is also negatively associated with Tobin's Q ($r = - 0.08$, $p < 0.10$), indicating that firms with higher debt levels may be perceived as riskier, consistent with previous findings in emerging economies (Abor, 2008).

Profitability, measured by return on equity, exhibits a strong positive correlation with Tobin's Q ($r = 0.36$, $p < 0.01$), highlighting that more profitable firms are rewarded with higher market valuations. Sales growth is positively related to Tobin's Q ($r = 0.12$, $p < 0.01$), suggesting that firms demonstrating higher growth are viewed favorably by investors. Firm age shows a negligible correlation with Tobin's Q ($r = 0.03$), indicating that firm maturity does not significantly influence market valuation in this sample.

The correlations among control variables are generally weak, with only a few significant associations, such as leverage and return on equity ($r = - 0.35$, $p < 0.01$), reflecting the inverse relationship between debt levels and profitability. Overall, these findings suggest limited multicollinearity concerns, although formal diagnostics are reported below.

Multicollinearity Diagnostics

Table 4: Variance Inflation Factors

Variable	VIF	1/VIF
Corporate Environmental Disclosure	1.04	0.959
Firm Size	1.05	0.955
Leverage	1.28	0.784
Return on Equity	1.34	0.748
Sales Growth	1.15	0.87
Firm Age	1.06	0.939
Mean VIF	**1.15**	

Source: Based on Secondary Data

Variance Inflation Factor (VIF) results in Table 4 confirm that multicollinearity is not a significant concern for the regression analysis. All VIF values are well below the commonly accepted threshold of 10 (Kalnins & Hill, 2023), with a mean VIF of 1.15. Specifically, CED has a VIF of 1.04, and other variables range between 1.05 and 1.34. The corresponding tolerance values (1/VIF) are all above 0.74, further supporting the absence of problematic multicollinearity. These diagnostics indicate that the estimated regression coefficients are likely to be stable and reliable.

Regression Analysis

This section delas with different aspects of regression analysis.

Table 5: Model Selection Based on F-test and Hausman Test

Comparison	Null Hypothesis (H_0)	Test Statistic	p-value	Decision	Preferred Model
Pooled OLS vs Fixed Effects	All firm-specific effects are zero (Pooled OLS is adequate)	$F(99, 394) = 18.70$	0.00	Reject H_0	Fixed Effects
Random Effects vs Fixed Effects	Random effects model is consistent (RE preferred)	$\chi^2(6) = 84.89$	0.00	Reject H_0	Fixed Effects

Source: Based on Secondary Data

Before estimating the impact of CED on firm value, model selection tests were conducted to determine the most appropriate specification. The F-test comparing pooled OLS with fixed effects rejected the null hypothesis that all firm-specific effects are zero ($F(99, 394) = 18.70$, $p < 0.01$), indicating that firm-level heterogeneity is significant and that a fixed-effects model is more suitable. Similarly, the Hausman test comparing random effects with fixed effects rejected the null hypothesis ($\chi^2(6) = 84.89$, $p < 0.01$), confirming that the fixed-effects model provides consistent and unbiased estimates. These results suggest that unobserved firm-specific factors, such as managerial practices or firm culture, play an important role in determining firm value and must be accounted for in the analysis (Wooldridge, 2010).

Table 6: Fixed Effects Regression Results - Determinants of Tobin's Q

Variable	Coefficient	Std. Error	t-value	Significance
Corporate Environmental Disclosure	0.43	0.13	3.44	***
Firm Size	–0.46	0.07	–6.68	***
Leverage	0.97	0.14	6.72	***
Return on Equity	0.90	0.16	5.80	***
Sales Growth	0.05	0.06	0.94	
Firm Age	2.24	0.44	5.05	***
Constant	1.98	1.42	1.40	
Observations	500			
Number of groups (firms)	100			
R-squared	0.37			
Adjusted R-squared	0.16			
F-statistic	33.21			
F-statistic P-value	0.00			

Source: Based on Secondary Data

The fixed-effects regression results (Table 6) reveal several noteworthy findings. CED exhibits a positive and statistically significant coefficient ($\beta = 0.43$, $p < 0.01$), suggesting that firms with higher levels of environmental disclosure tend to experience greater market valuation. This finding aligns with the value-enhancing perspective of sustainability reporting, which posits that transparent disclosure of environmental performance can reduce information asymmetry, enhance stakeholder confidence, and ultimately increase investor valuation (Swarnapali, 2020; Khan et al., 2013). In other words, proactive environmental reporting appears to signal firm quality to the market, consistent with prior evidence from emerging economies (Gerged et al., 2021).

Similar patterns are observed in other emerging contexts, such as the GCC region, Turkey, and China, which report positive associations between environmental transparency and market value, such as Tobin's Q (Gerged et al., 2021). In contrast, disclosure levels in developed markets such as the UK and US average between 64% and 80%, while Sri Lankan firms disclose only about 21%. This considerable gap implies that even modest improvements in disclosure can yield substantial gains in market credibility and investor confidence in data-scarce environments like Sri Lanka. Greater environmental transparency thus not only enhances firm valuation but also strengthens the institutional and informational infrastructure of the Sri Lankan capital market.

Several control variables also demonstrate significant relationships with Tobin's Q. Firm size shows a negative and significant coefficient ($\beta = –0.46$, $p < 0.01$). While global literature often assumes that larger firms enjoy greater market valuation due to superior resources and diversification, this study reveals that larger Sri Lankan firms may experience diminishing marginal benefits from market valuation, potentially due to bureaucratic complexity or constrained growth opportunities in a post-crisis environment. This finding is consistent with the empirical evidence of Balagobei et al. (2024), who reported that firm size has a significant negative impact on Tobin's Q among listed companies in Sri Lanka. Leverage is positively associated with firm value ($\beta = 0.97$, $p < 0.01$), which could reflect the signaling effect of prudent debt usage, where moderate leverage conveys discipline in financial management without imposing excessive risk (Abor, 2008). Return on equity is positively and significantly related to Tobin's Q ($\beta = 0.90$, $p < 0.01$), highlighting that profitability remains a key driver of investor perception and market valuation. Firm age also shows a positive effect ($\beta = 2.24$, $p < 0.01$), suggesting that established firms with longer operating histories enjoy greater investor trust and reputational capital, reinforcing findings from Nuskiya et al. (2021). Sales growth, however, is not statistically significant ($\beta = 0.05$, $p > 0.10$), indicating that short-term fluctuations in revenue growth have limited influence on market valuation relative to profitability, firm size, and governance-related factors.

The overall model demonstrates an R-squared of 0.37 and an adjusted R-squared of 0.16, suggesting that approximately 16% of the variation in firm value can be explained by the included explanatory variables after adjusting for the number of predictors and firm fixed effects. The F-statistic is highly significant ($F = 33.21$, $p < 0.01$), confirming that the model provides a reliable fit to the data. While this suggests moderate explanatory power, it is consistent with disclosure studies in other emerging markets, such as Brazil, which reported similar R-squared values (around 19%) (Lima Crisóstomo et al., 2011). Practically, this means that while CED is a significant value driver, other factors, such as unobserved management quality, corporate reputation, and the broader macro-economic recovery path, also play substantial roles in shaping firm value (Purbawangsa et al., 2019).

Collectively, these results underscore the positive role of CED in enhancing firm value in an emerging market context. The findings suggest that stakeholders, including investors, respond favorably to firms that demonstrate environmental responsibility, consistent with the value-enhancing theory of corporate sustainability reporting (Gerged et al., 2023; Khlif et al., 2015; Swarnapali, 2020) . Moreover, firm-specific factors such as size, profitability, leverage, and age continue to exert significant influence on market valuation, highlighting the need to account for these characteristics when assessing the effects of sustainability disclosure.

Conclusion

This study aimed to investigate the impact of CED on firm value in Sri Lanka, addressing a critical research gap in emerging markets where empirical evidence remains limited.

The research was motivated by the increasing importance of environmental, social, and governance (ESG) criteria in investment decisions, the voluntary and early-stage nature of environmental reporting in Sri Lanka, and the post-pandemic economic environment that has reshaped stakeholder priorities. This study examines the relationship between CED and firm value in Sri Lanka, a middle-income country that presents a unique and dynamic context for environmental reporting. Unlike prior research conducted in developed markets with mandatory regimes, this study captures a pivotal transitional period in an under-regulated, emerging market where reporting is largely voluntary and still in its early stages. Furthermore, this research provides the first post-pandemic empirical evidence (2020–2024) from Sri Lanka, a period of intensive economic recovery where corporate resilience and non-financial accountability have become critical to attracting foreign direct investment. By focusing on this specific socio-economic landscape, the study demonstrates that even in a data-scarce environment, voluntary transparency acts as a vital signal for market valuation.

To achieve this objective, a quantitative research design was employed. The population consisted of all 286 companies listed on the CSE as of June 2025. A random sample of 100 firms was selected to ensure representativeness while maintaining manageable data for detailed analysis. Secondary data were collected from corporate annual reports for the period 2020 to 2024, providing longitudinal insights across five years that include the post-pandemic period. CED was quantified through content analysis using the Global Reporting Initiative (GRI) framework, producing a disclosure score based on 34 environmental items. Firm value, the dependent variable, was measured using Tobin's Q, capturing investor perceptions of long-term profitability and growth potential. Control variables, including firm size, leverage, profitability, sales growth, and firm age, were incorporated to isolate the effects of disclosure on market valuation.

The findings demonstrate that CED positively and significantly influences firm value, suggesting that investors reward transparency and proactive environmental management. Firms with higher disclosure scores experienced higher Tobin's Q, reflecting enhanced investor confidence, reduced information asymmetry, and improved stakeholder trust. These results align with stakeholder and legitimacy theory, reinforcing the idea that environmental disclosure functions both as a strategic communication tool and as a mechanism to align firm behavior with societal and investor expectations. Several control variables also showed significant relationships with Tobin's Q. Firm-specific characteristics, including size, financial leverage, profitability, and firm age, also play a role in shaping market valuation. While larger firms may experience diminishing marginal benefits from disclosure, profitability, prudent financial management, and established reputational capital strengthen investor perceptions. Short-term sales growth appears less influential in determining firm value relative to these factors.

Overall, this study provides robust empirical evidence supporting the value-enhancing role of CED in an emerging market context. By integrating theoretical frameworks, firm-specific controls, and post-pandemic data from a representative sample of Sri Lankan listed firms, the research demonstrates that environmental reporting is not only a voluntary compliance activity but also a strategic instrument for strengthening market valuation, enhancing investor trust, and promoting sustainable corporate practices.

Research Implications

This study provides significant theoretical and practical implications. Theoretically, the findings reinforce stakeholder and legitimacy theories by demonstrating that transparent environmental reporting reduces information asymmetry, aligns firms with societal expectations, and enhances market valuation. The results also demonstrate the complementary roles of these frameworks during periods of economic instability: investors reward credible disclosures that reduce uncertainty (Stakeholder Theory), while firms use CED to sustain legitimacy amid growing environmental concerns (Legitimacy Theory). Moreover, the evidence suggests a shift toward substantive disclosure under Neo-Institutional Theory, where markets value genuine environmental performance over symbolic compliance.

The findings suggest that proactive environmental reporting is not merely a compliance activity but a strategic tool for enhancing market credibility and investor trust. Practically, the study offers clear guidance for managers, policymakers, and investors. Managers should strengthen environmental reporting practices to signal long-term sustainability and competitiveness, particularly by aligning disclosures with global standards such as the GRI and SLFRS S1 and S2 requirements. Policymakers and regulators, including the Securities and Exchange Commission (SEC) and the CSE, are encouraged to transition toward mandatory disclosure frameworks to ensure consistency and comparability across firms. Government and professional bodies, such as the Ministry of Environment and CA Sri Lanka, should implement targeted training and capacity-building programs, especially for SMEs, to enhance data collection and reporting quality. Investors, in turn, can use environmental disclosures as a reliable indicator of firm resilience, governance quality, and long-term value creation.

Empirically, the study contributes to the limited evidence from emerging markets, using data from 100 CSE-listed companies over five years to demonstrate a positive link between environmental disclosure and firm value.

Limitations and Future Research Recommendations

Despite the contributions of this study, several limitations warrant attention. First, the analysis focuses on 100 listed firms on the Colombo Stock Exchange, which may limit the generalizability of findings to unlisted or smaller firms that could follow different disclosure practices. Second, the study relies on a binary scoring system, emphasizing the quantity rather than the substantive quality of environmental disclosures, which may overlook nuances such as tone, depth, and credibility. Third, the study period from 2020 to 2024, while capturing post-pandemic adjustments, may not fully reflect longer-term trends in environmental reporting or evolving investor perceptions.

Future research could address these limitations by examining the quality, depth, and credibility of CED and how these factors affect firm value. Investigating industry-specific dynamics, ownership structures, and cultural contexts that may moderate the relationship between environmental disclosure and firm value could yield richer insights, particularly in emerging markets. Comparative studies between emerging and developed economies would be valuable for assessing cross-country differences in the effectiveness of environmental disclosure as a value-enhancing mechanism. Longitudinal studies extending beyond the immediate post-pandemic period

could also shed light on the sustainability of disclosure effects, market responses over time, and potential sectoral variations in the impact of environmental reporting.

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