Impact of Sustainability Reporting on the Firm Performance and Financial Decision Making with Special Reference to Material Sector in Sri Lanka

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Abstract: This study examines the impact of sustainability reporting on the firm performance and financial decision making within the material sector in Sri Lanka. Through quantitative analysis of data from a sample of listed material companies of eleven, correlations were found between disclosure practices and various financial indicators, including Return on Equity (ROE), Return on Assets (ROA) and Financial Decision Making (FDM). Through quantitative analysis of data, the results reveal that environmental disclosure has a significant negative effect on both Return on Assets (ROA) and Return on Equity (ROE) but Economic and social disclosures show insignificant relationships with ROA and ROE. Regarding financial decision making (FDM), economic and environmental disclosures both positively influence FDM, with environmental disclosure showing statistical significance, while social disclosure has a significant negative impact. These findings emphasize the significance of targeted sustainability reporting to improve financial outcomes and strategic management by highlighting the complex and varied effects of various sustainability disclosures on firm performance and decision-making processes. The study offers recommendations for companies to enhance disclosure practices and identifies avenues for future research to address methodological limitations and explore emerging trends in disclosure practices.

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01. Introduction

Sustainability reporting is a type of corporate communication that reveals the economic, environmental and social effects of a business to its stakeholders. It's a voluntary action intended to show the company's commitment to sustainable development and corporate responsibility. Sustainable reporting can also improve the company's organization/competitive position/information to the stakeholder, decision making and performance review.

Material sector is a wide sector that encompasses companies engaged in the extraction, processing, and of raw and finished goods, which are subsequently transformed into products used in innumerable areas, this includes: metals, minerals, chemicals, construction materials and paper products. The materials sector plays a crucial role in the global economy, supplying the necessary resources for different industries and sectors. Still, the material sector faces serious hurdles and dangers, especially concerning environmental, social, and economical matters like resource depletion, pollution, climate change, along with issues of human rights, labor practices, and corruption. These challenges faced can really influence how profitable, expansive, and sustainable the sector is, not to mention the expectations and needs of its stakeholders. As a result, companies in the materials sector should really embrace sustainability reporting. It serves as a vital strategy for showing their ESG performance and how they impact stakeholders, plus it can lead to better management and decision-making overall.

The problem statement of my study is "Impact of sustainability reporting on firm's performance and financial decision making, with special reference to material sector in Sri Lanka. By focusing on the above problem statement, the research questions can be defined as:

I. Is Sustainability reporting significantly Impact Company's ROE?

II. Is Sustainability reporting significantly Impact Company's ROA?

III. Is Sustainability reporting significantly Impact Company's Financial Decision Making?

Alagiyawanna and Tilakasiri (2023) empirically examined the impact of sustainability reporting on the financial performance of listed manufacturing companies in Sri Lanka before and after COVID-19 (2015–2020). The study used a GRI-based scoring model to rate the quality of sustainability disclosures and ROA and ROE as indicators of financial performance. It then used panel data regression analysis to look at how the relationship changed over time. The results showed that there was a consistently positive and statistically significant link between sustainability reporting and both ROA and ROE in both periods. This means that companies that had better sustainability reports tended to do better financially. This positive effect lasted even during the COVID-19 crisis, which shows that good sustainability practices make operations more efficient and boost investor confidence, which helps businesses stay strong and create long-term value creation.

Currently, there isn't much documentation or analysis available on sustainability reporting within Sri Lanka's material sector. There is lack of solid data about how much, how good, and what influences sustainability reporting in Sri Lanka's material sector, nor do we understand how this reporting affects a company's performance and its financial choices. This paper intends to address the existing gap by thoroughly examining sustainability reporting practices in Sri Lanka's material sector, employing various quantitative techniques.

02. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Tilakasiri and Wanninayake (2023) employed descriptive statistics and panel data regression and tested how sustainability index related to financial performance measured by Return on Assets (ROA) and Sales Growth (SG). Contrary to expectations, the findings revealed a negative association: higher levels of sustainability reporting were significantly correlated with lower ROA and reduced Sales Growth, and the overall results sug-

gested that transparency in sustainability disclosures did not enhance firm performance in this sector in Sri Lanka. A cross-regional study of energy companies by Mititean and Sărmaș (2023) found that ESG scores were negatively correlated with ROA and ROE. This could mean that companies are putting too much money into areas that aren't their main business. This was supported by Wu (2024) which looked at the global cruise industry and found that ESG performance negatively impacted company profits, especially when money was tight. This shows that sustainability investments can make things less efficient in places with a lot of debt.

Chava (2014) focused on how the cost of debt and equity relates to environmental challenges. The author points out that enterprises that contribute to environmental issues have greater debt and equity costs. This was supported by Cheng et al. (2014) which concludes that Sustainable businesses have less financial restraints and have greater access to finance. Economic sustainability disclosure and the cost of equity capital are found to be statistically significantly correlated negatively by Ng and Rezaee (2015), who also observe that this association is stronger when ESG performance is high. Similarly, Gupta (2018) examined a large worldwide sample of 43 nations and found a statistically significant negative link between environmental performance and cost of equity. Fonseka et al. (2018) in another research of the Chinese market found that the cost of debt and environmental disclosure have a statistically significant negative association. According to Caceres (2024), the impact of ESG disclosures on financial performance and capital structure. The authors found that ESG disclosures significantly influence financial performance, with governance performance specifically impacting return on assets (ROA).

Numerous studies demonstrate the positive impacts of sustainability reporting on performance metrics. Kwaghfan (2015) looked at how Nigerian firm performance was affected by sustainability reporting and noticed a favorable correlation between net profit margin, ROA, ROE, EPS, and sustainability reporting. Several researches have looked into the connection between firm's performance and sustainability reporting. According to some research (Pava and Krausz, 1996; Preston and O'Bannon, 1997; Waddock and Grave, 1997; Simpson and Kohers, 2002; Ngwakwe, 2009; Callan and Thomas, 2009), there is a positive correlation between sustainability reporting and financial performance.

According to a Höck et al. (2020), firms with strong environmental, social, and governance (ESG) performance tend to enjoy lower bond yields and reduced credit risk premiums. Cheng et al. (2014) discovered that companies that exhibit superior sustainability performance are more likely to secure advantageous terms in their loan agreements. Supporting this, Dhaliwal et al. (2011) reported that companies exhibiting superior CSR performance saw a decrease in their cost of equity capital within the year following the launch of CSR initiatives, leading to increased analyst coverage, devoted institutional investors, and the capacity to raise equity capital.

Other studies, in the meantime, has produced mixed or inconclusive findings. For example, a research by Clarkson et al. (2008) discovered no connection at all between financial performance and sustainability reporting. These contradictory findings emphasize the need for more investigation to pinpoint the precise contextual elements influencing how sustainability reporting affects business success. In a similar vein, Orlitzky et al. (2011) discovered that different industries and nations have different effects of sustainability on financial performance. These contradictory results emphasize the complex nature of the relationship between sustainability reporting and firm performance, implying that it could be impacted by a number of variables, including the nature of the industry, the setting of the nation, and the particular performance metrics employed. Similarly, Buys, et al. (2011) found no correlation between performance and sustainability reporting after examining the economic performance of sustainability reporting using data from the McGregor BFA database from 2002 to 2009.

Hussain et al. (2018) examined the sustainability reports of the top 100 US-based companies using both accounting performance (ROA and ROE) and market-based performance (Tobin's Q), they found no meaningful relationship between any ESG metric and financial performance.

According to Al Amosh et al., (2024), debt financing improves ESG performance across the board, whereas equity financing had no effect on ESG. As a result, managers of Jordanian businesses are investing in ESG initiatives in an effort to lower agency costs. Dhaliwal et al. (2011) examined a sample of US companies and discovered no proof that debt financing and CSR disclosure are related. These inconsistent results emphasize the need for more investigation to fully comprehend the complex relationship between capital structure choices and sustainability reporting. Goss and Roberts (2009) find no correlation at all between corporate social responsibility and the cost of debt financing as shown by lower loan spreads.

Consequently, based on the above discussion and analysis, the following researcher hypotheses are developed:
H1: There is a significant impact of Sustainability Reporting on ROA of Listed Material companies in Sri Lanka
H1.1: There is a significant impact of Economic Disclosure on ROA of Listed Material companies in Sri Lanka.
H1.1: There is a significant impact of Environmental Disclosure on ROA of Listed Material companies in Sri Lanka.
H1.1: There is a significant impact of Social Disclosure on ROA of Listed Material companies in Sri Lanka.
H2: There is a significant impact of Sustainability Reporting on ROA of Listed Material companies in Sri Lanka
H2.1: There is a significant impact of Economic Disclosure on ROE of Listed Material companies in Sri Lanka.
H2.2: There is a significant impact of Environmental Disclosure on ROE of Listed Material companies in Sri Lanka.
H2.2: There is a significant impact of Social Disclosure on ROE of Listed Material companies in Sri Lanka.
H3: There is a significant impact of Sustainability Reporting on Financial Decision Making of Listed Material companies in Sri Lanka
H3.1: There is a significant impact of Economic Disclosure on Financial Decision Making of Listed Material companies in Sri Lanka.
H3.2: There is a significant impact of Environmental Disclosure on Financial Decision Making of Listed Material companies in Sri Lanka.
H3.3: There is a significant impact of Social Disclosure on Financial Decision Making of Listed Material companies in Sri Lanka.

03. RESEARCH METHODS AND METHODOLOGY

3.1 SAMPLE AND DATA COLLECTION

The Colombo Stock Exchange (CSE) has 285 listed companies including twenty-two Listed Material sector companies as of 2025. The entire population is considered as the sample of the study. In this study, firms from material sector that has filed annual report and embraced sustainability reporting for study period from 2018 to 2023 is chosen, which includes 11 material sector companies.

3.2 MODEL SPECIFICATION

a. ROE = β0+β1(Economic Disclosure) +β2(Environmental Disclosure) +β3 (Social Disclosure) + ϵ

b. ROA = β0+β1(Economic Disclosure) +β2 (Environmental Disclosure) +β3 (Social Disclosure) + ϵ

c. Debt/equity ratio (Financial decision making) = β0+β1(Economic Disclosure) +β2(Environmental Disclosure) +β3(Social Disclosure) + ϵ

04. RESULTS AND DISCUSSIONS

Table 1 presents descriptive statistics of the variables which have been used in the study. With a view to explain the general characteristics of the sample drawn for the study, this table reports the minimum, maximum, mean, median, standard deviations, kutosis and skewness.

Sustainability scores are received from the index. ROA is calculated by dividing Net Income by Total Assets, ROE is calculated by dividing Net Income by Total equity and Debt equity ratio is calculated by dividing Total Debt by Shareholder's Equity.

4.1 Descriptive Statistics

Table 1: *Descriptive Results*

		ECND	ENVD	SOCD	ROA	ROE	FDM
N	Valid	66	66	66	66	66	66
	Missing	0	0	0	0	0	0
Mean		.4899	.6017	.4691	11.0450%	19.4474%	.373917
Median		.5000	.6250	.4211	8.9387%	15.6774%	.310000
Std. Deviation		.34329	.27176	.24508	10.09360%	19.53295%	.3183964
Skewness		.040	-1.042	.072	.718	.389	1.714
Std. Error of Skewness		.295	.295	.295	.295	.295	.295
Kurtosis		-1.311	.025	-.630	.729	3.502	3.704
Std. Error of Kurtosis		.582	.582	.582	.582	.582	.582
Minimum		.00	.00	.00	-16.00%	-51.40%	.0000
Maximum		1.00	.88	.89	35.74%	86.00%	1.5373
Sum		32.33	39.71	30.96	728.97%	1283.53%	24.6785

For economical disclosure (ECND), the mean value is approximately 0.49, indicating that, on average, companies disclose economic-related information around 49% of the time. The median value of 0.5 suggests that half of the companies disclose economic-related information below this level, while the maximum value of 1 indicates that some companies fully disclose in this aspect. The standard deviation of 0.34 implies moderate variability in the extent of economical disclosure among the companies. The skewness value of 0.040 suggests that the distribution is positively skewed, indicating that there are few companies with higher than average disclosure. The kurtosis value of -1.311 indicates a platykurtic distribution, meaning the distribution has thinner tails and flatter peak compared to a normal distribution.

Similarly, for environmental disclosure (ENVD), the mean value is approximately 0.602, indicating that, on average, companies disclose environmental-related information around 60.2% of the time. The median value of 0.625 suggests that half of the companies disclose any environmental-related information, while the maximum value of 0.88 indicates that some companies substantially disclose in this aspect. The standard deviation of 0.27 implies moderate variability in the extent of environmental disclosure among the companies. The skewness value of -1.042 suggests a substantial negative skew in environmental disclosure. The kurtosis value of 0.25 indicates a significantly platykurtic distribution, meaning the distribution is flatter than normal with light tails.

For social disclosure (SOCD), the mean value is higher at 0.47 indicating that, on average, companies disclose social-related information around 47% of the time. The median value of 0.4211 suggests that most companies disclose social-related information half of companies disclose at this value. The maximum value of 0.89 indicates that some companies substantially disclose in this aspect. The standard deviation of 0.25 suggests moderate variability in the extent of social disclosure among the companies. The skewness value of 0.072 indicates a positively skewed distribution, suggesting more companies with lower levels of disclosure. The kurtosis value of -0.630 indicates a platykurtic distribution, meaning that the distribution is flatter than normal.

Mean value and SD of ROA is 11.05 and 10.09 repectively. The median is 8.94, suggesting that half of firms have ROA below this level. Out of the companies in material sector there are firms with both maximum 35.74 and minimum -16.

Mean value and SD of ROE is 19.45 and 19.53 repectively. The median is 15.68, suggesting that half of firms have ROE below this level. Out of the companies in material sector there are firms with both maximum 86 and minimum -51.4.

Mean value and SD of FDM is 0.374 and 0.318 repectively. The median is 0.31 suggesting that half of firms have FDM below this level. Out of the companies in material sector there are firms with both maximum 1.54 and minimum 0.00.

4.2 Correlation Analysis

Bivariate Pearson Correlation produces a sample correlation coefficient, r, which measures the strength and direction of the linear relationship between pairs of continuous variables by extension. The Pearson Correlation evaluates whether there is statistical evidence for a linear relationship among the same pairs of variables in the population. The Pearson correlation is a paramedic 4.3.1 Correlation Analysis

Table 2 Summary of Correlation

Correlations

		ECND	ENVD	SOCD	ROA	ROE	FDM
ECND	Pearson Correlation	1					
	Sig. (2-tailed)						
ENVD	Pearson Correlation	.587**	1				
	Sig. (2-tailed)	.000					
SOCD	Pearson Correlation	.783**	.725**	1			
	Sig. (2-tailed)	.000	.000				
ROA	Pearson Correlation	-.088	-.177	-.020	1		
	Sig. (2-tailed)	.481	.155	.874			
ROE	Pearson Correlation	-.076	-.221	-.041	.930**	1	
	Sig. (2-tailed)	.546	.074	.745	.000		
FDM	Pearson Correlation	.278*	.222	.096	-.418**	-.254*	1
	Sig. (2-tailed)	.024	.073	.444	.000	.040	

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Source: Annual Report

4.3 Regression Analysis

The multiple regression analysis is used to determine the functional relationship between the dependent variable and independent variable for predictions and making other inferences.

4.3.1 Model -1 Sustainability Reporting and ROA

Table 3: Coefficients - *ROA*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14.106	3.061		4.608	.000
	ECND	-5.055	5.805	-.172	-.871	.387
	ENVD	-12.488	6.622	-.336	-1.886	.064
	SOCD	14.772	9.562	.359	1.545	.127

a. Dependent Variable: ROA

Source: Annual data

The regression model for Return on Asset (ROA) is presented in Table 3, incorporating three sustainability disclosure variables: Economic Disclosure (ECND), Environmental Disclosure (ENVD), and Social Disclosure (SOCD). Economic Disclosure (ECND) and ROA is negatively insignificant at all levels. The result is

inconsistent with the hypotheses that there is a significant relationship between Economic Disclosure (ECND) and ROA and the hypotheses is rejected.

Besides, Environmental Disclosure (ENVD) and ROA is significant at the 10% significance level. Theresult is consistent with the hypotheses that there is a significant relationship between Environmental Disclosure (ENVD) and ROA and the hypotheses is accepted.

Moreover, The result of Social Disclosure and ROA is inconsistent with the hypotheses that there is a significant relationship between Social Disclosure and ROA and the hypotheses is rejected.

From the above table following regression model can be formed

$$Y = 20.709 – 5.182\ X1 – 20.658\ X2 + 20.264\ \ X3 + e$$

Where

Y – ROA (Return on Asset)

X1- Economic Disclosures

X2 - Environmental Disclosures

X2 - Social Disclosures

4.3.2 Model -2 Sustainability Reporting and ROE

Table 4: *Coefficients - ROE*

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	Std. Error	Beta		
1	(Constant)	27.311	5.876		4.648	.000
	ECND	-5.308	11.142	-.093	-.476	.635
	ENVD	-28.828	12.711	-.401	-2.268	.027
	SOCD	25.756	18.353	.323	1.403	.166

a. Dependent Variable: ROE

Source: Annual data

Table 4 presents the coefficients for a regression model that aims to understand the relationship between sustainability reporting and Return on Equity (ROE). Economic Disclosure (ECND) and ROE is negatively insignificant at all levels. The result is inconsistent with the hypotheses that there is a significant relationship between Economic Disclosure (ECND) and ROE and the hypotheses is rejected.

There is negative relationship between ENVD and ROE. The result is consistent with the hypotheses that there is a significant relationship between Environmental Disclosure (ENVD) and ROE and the hypotheses is accepted. There insignificant positive impact of Social Disclosure on ROE. The result is inconsistent with the hypotheses that there is a significant relationship between Social Disclosure and ROE and the hypotheses is rejected.

Table 5: *Coefficients - FDM*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.248	.092		2.704	.009
	ECND	.474	.174	.511	2.723	.008
	ENVD	.353	.198	.301	1.777	.080
	SOCD	-.679	.286	-.522	-2.368	.021

Table 5 presents the coefficients for a regression model that aims to understand the relationship between sustainability reporting and Financial Decision Making (FDM). Economic Disclosure (ECND) and FDM is positively insignificant. The result is consistent with the hypotheses that there is a significant relationship between Economic Disclosure (ECND) and FDM and the hypotheses is accepted.

There is positive relationship between ENVD and FDM. Environmental Disclosure (ENVD) and FDM is significant at the 10% significance level. The result is consistent with the hypotheses that there is a significant relationship between Environmental Disclosure (ENVD) and FDM and the hypotheses is accepted. There is a significant negative impact of Social Disclosure on FDM. The result is consistent with the hypotheses that there is a significant relationship between Social Disclosure and ROE and the hypotheses is accepted.

05. Conclusion

Through comprehensive statistical analyses, it was discovered that economic and social disclosures have an insignificant impact on performance metrics like return on equity (ROE) and return on assets (ROA), while environmental disclosure has a significant impact on these same performance metrics. These findings highlight the fundamental role that disclosure practices play in influencing the financial performance, market valuation, and strategic decision-making of Sri Lankan listed material companies.

Meanwhile, economic, environmental and social disclosures significantly impact financial decision making. This underscores the critical role of comprehensive sustainability reporting in guiding strategic financial decisions within Sri Lankan listed material sector companies.

REFERENCES

Al Amosh, H., Khatib, S. F., Alkurdi, A., & Bazhair, A. H. (2024). Capital structure decisions and environmental, social and governance performance: Insights from Jordan. *Journal of Financial Reporting and Accounting*, *22*(4), 972-989.

Amasn, a., & tilakasiri, k. K. Impact of sustainability reporting on firm financial performance of listed manufacturing companies in sri lanka during pre and post covid 19.

Buys, P., Oberholzer, M., & Andrikopoulos, P. (2011). An investigation of the economic performance of sustainability reporting companies versus non-reporting companies: A South African perspective. *Journal of Social Sciences*, *29*(2), 151-158.

Callan, S. J., & Thomas, J. M. (2009). Corporate financial performance and corporate social performance: an update and reinvestigation. *Corporate social responsibility and environmental management*, *16*(2), 61-78.

Chava, S. (2014). Environmental externalities and cost of capital. *Management science*, *60*(9), 2223-2247.

Cheng, B., Ioannou, I., & Serafeim, G. (2014). Corporate social responsibility and access to finance. *Strategic management journal*, *35*(1), 1-23.

Clarkson, P. M., Overell, M. B., & Chapple, L. (2011). Environmental reporting and its relation to corporate environmental performance. *Abacus*, *47*(1), 27-60.

Dhaliwal, D. S., Li, O. Z., Tsang, A., & Yang, Y. G. (2011). Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting. *The accounting review*, *86*(1), 59-100.

Fonseka, M., Tian, G. L., & Al Farooque, O. (2020). Impact of environmental information disclosure and real estate segments on cost of debt: Evidence from the Chinese real estate industry. *Economics of Transition and Institutional Change*, *28*(1), 195-221.

Goss, A., & Roberts, G. S. (2011). The impact of corporate social responsibility on the cost of bank loans. *Journal of banking & finance*, *35*(7), 1794-1810.

Gupta, K. (2018). Environmental sustainability and implied cost of equity: International evidence. *Journal of business ethics*, *147*(2), 343-365.

Höck, A., Klein, C., Landau, A., & Zwergel, B. (2020). The effect of environmental sustainability on credit risk. *Journal of Asset Management*, *21*(2), 85-93.

Kwaghfan, A. (2015). Impact of sustainability reporting on corporate performance of selected quoted companies in Nigeria.(published doctoral dissertation). *Department of Accountancy, University of Nigeria, Enugu*.

Mititean, P., & Sărmaș, F. N. (2023). Harmonizing sustainability disclosure and financial performance. An In-depth exploration within the European energy industry and Beyond. *Management dynamics in the knowledge economy*, *11*(4), 385-401.

Ng, A. C., & Rezaee, Z. (2015). Business sustainability performance and cost of equity capital. *Journal of Corporate Finance*, *34*, 128-149.

Ngwakwe, C. C. (2009). Environmental responsibility and firm performance: Evidence from Nigeria. *International Journal of Humanities and Social Sciences*, *3*(2), 97-103.

Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate social and financial performance: A meta-analysis. *Organization studies*, *24*(3), 403-441.

Pava, M. L., & Krausz, J. (1996). The association between corporate social-responsibility and financial performance: The paradox of social cost. *Journal of business Ethics*, *15*(3), 321-357.

Preston, L. E., & O'bannon, D. P. (1997). The corporate social-financial performance relationship: A typology and analysis. *Business & Society*, *36*(4), 419-429.

Puente De La Vega Caceres, A. (2024). Drivers of value creation and the effect of ESG risk rating on investor perceptions through financial metrics. *Sustainability*, *16*(13), 5347.

Simpson, W. G., & Kohers, T. (2002). The link between corporate social and financial performance: Evidence from the banking industry. *Journal of business ethics*, *35*(2), 97-109.

Tilakasiri, K. K., & Wanninayake, H. M. K. B. (2023). The impact of sustainability reporting practices on financial performance from power and energy sector organisations in sri lanka. *Journal of Desk Research Review and Analysis*, *1*(2).

Waddock, S. A., & Graves, S. B. (1997). The corporate social performance–financial performance link. *Strategic management journal*, *18*(4), 303-319.

Wu, Y. (2024). Does ESG Consistently Promote the Corporate Financial Performance? A Study of the Global Cruise Industry. *arXiv preprint arXiv:2409.00758*.