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The Effect of Environmental, Social and Governance Disclosures on Firm Value: With Special Reference to Listed Firms in CSE

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ABSTRACT

This study empirically verifies whether the environmental, social, and governance disclosures impact on firm value of the companies listed on the Colombo Stock Exchange. The Data were drawn from published annual reports and sustainability reports covering the period from 2014/2015 to 2018/2019 relating to 50 companies. The study developed individual and integrated indices to measure the ESG disclosures and examine the individual and collective effect of ESG disclosures on firm value. The study found that social and governance disclosures positively and significantly impact firms' value, whereas environment disclosures do not significantly impact firms' value. However, integrated ESG disclosures positively and significantly influence the firm value. The study suggests that the market positively and significantly values the social and corporate governance disclosures as well as the combined ESG disclosures carried out by the companies in Sri Lanka. This study contributes to the extant literature being the first empirical study to examine the impact of ESG factors on the value of the Sri Lankan public quoted companies.

Keywords: ESG Disclosures, ESG Score, Firm Value, Tobin's Q, Sri Lanka

INTRODUCTION

Environmental, Social, and Governance factors known as ESG include a set of determinants that affect an entity's business operations, and socially conscious investors consider these factors when evaluating their investment decisions. The traditional belief is that the shareholders are the sole important party of an entity and try to maximize shareholders' wealth as much as possible by increasing firm value. However, stakeholder theory argues that entities must consider all the other parties who affect firms' operations and strategic decisions. Scholars argue that the traditional financial analysis of firm value is insufficient because investors with long-term expectations demand more. Structural and systemic shifts, such as climate changes, resource scarcity, regulatory pressure, and the importance of human capital and diversity, increasingly pose material business risks and opportunities for issuers and investors globally. Global awareness of the importance of social, environmental, and corporate governance responsibilities has increased in the last two decades due to corporate scandals involving accounting irregularities; share price manipulation. Additionally, the focus on ESG has increased due to the labour conditions, environmental damages, and natural disasters due to irresponsible business

activities, growing legislative pressure, and increasing public awareness of the global climate (Susilowati, 2013). Individual and institutional investors increasingly outline the importance of global environmental, social, and governance factors as essential determinants of investment decisions. ESG data act as a vital factor in sustainable finance. Hence, most countries, financial markets, and rating agencies have introduced several market indices and ranking methodologies to incorporate the impact of ESG factors on investment decisions.

Many studies have examined the direct relationship between corporate social responsibility (CSR) and firm value (eg. Chen & Lee, 2017; Hu, Chen, Shao & Gao, 2018). Although, there are growing debate on the relationship between ESG performance and firm value, most of the extant literature can be found in developed market contexts (for example, Harjoto & Jo, 2015; Plumlee et al., 2015) and very few studies have focused on emerging markets. For example, Abound and Diab (2017) in the Egyptian context and Atan, Alam, Said and Zamri (2017) in the Malaysian context. Additionally, most researchers have done the research on the relationship between CSR and firm performance and relationship between corporate governance and firm performance (eg. Goffi et al.,2021), and few studies have combined the CSR and governance in finding the effect on firm performances and then to the firm value (Fatemi et al., 2015). In the Sri Lankan context, Rajapaksha et al. (2019) have examined the effect of ESG reporting on banks' and financial companies' performances, suggesting that improved ESG reporting could enhance company performances. An important finding was drawn by Machmuddah and Wardhani (2020) relating to ESG disclosures. Their findings indicated that Sri Lanka has the highest ratings for corporate ESG disclosures, and the highest rating for corporate environmental and corporate social performances of the ESG rating scores based on the Bloomberg database from 2014 to 2018. Thus, given the higher rating scores of the ESG reporting by the Sri Lankan companies and considering the previous studies, this study contributes to the literature by addressing the effect of ESG reporting disclosures on firm value covering many industries of the Colombo Stock Exchange (CSE). Further, this study follows the World Federation of Exchanges (WFE) ESG metrics as a comprehensive coverage of the ESG disclosures compared to the previously applied Global Reporting Initiative Sustainability Reporting Guidelines (G3) by Nanayakkara (2019) and Code of Best Practices of ESG by Rajapaksha et al. (2019) relating to the Sri Lankan context.

Currently, the world is suffering several natural disasters and a sever climate change risk due to some profit-oriented and environment-sensitive business activities. And several financial scandals have occurred around the world and including Sri Lanka due to the lack of transparency, good governance, and unethical behaviours of organizations. Today the dynamic environment, business activities have become even more complex than earlier. Therefore, there is an increasing interest by investors in the ESG impacts on businesses performances and Socially Responsible Investments (SRI). Furthermore, most organizations disclose their ESG performance and conduct much of CSR activities to attract existing and potential investors.

Sri Lanka as a developing country, ESG factors play a vital role in organizations. Ahmed and Suphachalasai (2014) emphasized that Sri Lanka would face a 1.2 percent loss of annual GDP by 2050 if measures are not taken to address the climate change. Therefore, it is important to consider the impact of environmental, social and governance factors on the firms'

operations and then to the economy. Therefore, the CSE and Central Bank of Sri Lanka (CBSL) have been encouraging companies to exercise good governance practices and assign adequate emphasis on CSR issues. This study is an attempt to empirically investigate the impact of environmental, social and corporate governance disclosures on the listed companies in the CSE. In Sri Lanka, there is increasing trend among the investors and other stakeholders on how the businesses are effectively deals with ESG factors. This study contributes to the extant literature by examine the impact of ESG disclosures on the firm value of the listed companies in Sri Lanka for the first time. Therefore, this study will be a step towards to filling the gap by studying the impact of ESG disclosures on the firm value of listed companies in Sri Lanka as an emerging market perspective.

LITERATURE REVIEW

Theoretical Review

Various theories are recognized in relation to ESG factors. There are numerous philosophies to explain the reasons why corporations concern about environmental, social and corporate governance factors. These include, stakeholder theory, value enhancing theory, legitimacy theory and agency theory.

Stakeholder Theory

The stakeholder theory of Freeman (1984) describes that entities must consider all the parties in the micro and macroeconomic environment that business operates when making decisions. This includes shareholders, customers, employees, suppliers, society, government, etc. This theory replaces the traditional view of the shareholder's theory. The existence of a business is not only to maximize the wealth of the shareholders but also to the stakeholders. Thus, this theory helps to recognize the area that are valued by the several other parties in addition to the shareholders of a company such as environmental, social and governance information.

Value Enhancing Theory

The value-enhancing theory embraces that incorporation of governance, environmental, and socially responsible activities into the business strategies and practices generate competitive advantages and business opportunities that enhance the longer-term shareholder value. Some of those advantages are the improvement in brand reputation, the improvement in employee productivity and efficiency, and the ease of funding.

Legitimacy Theory

The legitimacy theory explains that lawfulness is the general perception that the act of a company complies with the value system or social norms. The environmental and social responsibilities are done by a company to get legitimacy from the society to do its business activities (Susilowati, 2013). According to this theory companies must pay attention on the rights of both investors and society.

Agency Theory

In the publicly listed companies and large organizations, management and the shareholders are two different parties. This is called 'Agency Theory'. Managers take decisions as decision-making authority in an organization and shareholders are the owners of the organization. Management act as agents of the shareholders. Managers should act in the best interest of the shareholders, but sometimes managers may not act in the best interest of the owners, and they may pursue their own goals. In this situation management of the company may tries to manipulate the financial performance of the company to achieve their personal

goals. Sometimes they do not consider the impact of its operation to the environment and society. The board should communicate with stakeholders at regular intervals, a fair and understandable assessment of how the company is achieving its business purpose and governance practices. This theory helps in implementing the various governance mechanism to regulate the agent's action in the jointly held corporations.

Empirical Studies on ESG and Firm Performances

The empirical studies on the area of ESG and firm performances have been well examined in the context of developed markets (for example, Brammer, Brooks & Pavelin, 2006). Previous studies have started the studies in the area by examining the relationship between corporate governance and firm performances (for example, Gompers, Ishii & Metric, 2003), later the focus has given to CSR and firm performances (For example, Nyeadi, Ibrahim & Sare 2018), Very recently, the studies have combined the areas of governance and CSR and known as ESG to find the impact on firm performances (For example, Atan, Alam, Said & Zamri, 2018)

Denis and Mcconnell (2003) emphasized that effective corporate governance should fundamentally guarantee shareholders' value by ensuring the appropriate use of firms' resources, enabling access to capital and improving investor confidence. Therefore, corporate governance acts as an energetic role in enhancing the performance of companies. Corporate governance can have an important effect on the availability and cost of capital for all firms, and good corporate governance of financial firms is essential in fostering financial stability and healthy economic growth (Atacik & Jarvis, 2006). Gompers, Ishii and Metric (2003) investigate the association between governance index with corporate performance and find that corporate governance is significantly correlated with stock returns. Firms with better governance practices have a lower cost of equity capital and ultimately resulting in higher firm value (Asbaugh, Collins & LaFond, 2004).

Study by Tarmuji, Maelah and Tarmuji (2016) examine the social and governance practices on economic performances and found that they significantly influence on economic performances. Further, Mitra and Gaur (2020) indicate that the developed stock markets among Asian countries such as Hong Kong and Singapore are transitioning from a strong focus on environmental issues to a more social equity-based economy, which is driving greater governance performance. They highlighted the challenges of re-modelling existing corporate social responsibility framework among Asian firms, which do not have a clear road map on how to succeed environmental performance to achieve higher levels of human well-being, as well as the ethical concerns of achieving the wealth maximization goal.

With regards to the CSR and firm performances, Nyeadi, Ibrahim and Sare (2018), found a strong positive association between CSR and financial performance and with firm value based on the listed firms in South Africa. Furthermore, they found that the positive impact is higher in large firms and has no impact on firm performance of firms in the financial sector. A study by Madurasinghe and Jahfer, (2016) found a positive association between CSR and firm performances based on the banking sector in Sri Lanka. Yoon, Lee and Byun (2018) suggest that for firms in environmentally sensitive industries, the value-creating effect of CSR is lesser than for firms that do not belong to those sensitive industries.

Brammer, Brooks, and Pavelin (2006) show the impact of CSR performances on stock returns in UK, a developed market

perspective. To closely examine the relationship between social and financial performance, they used set of social performance indicators for environment, employment and community activities. Their findings revealed that the combined scores of social performance indicators are significantly and negatively related with the stock returns and abnormal returns are available for stockholders who are holding a portfolio of the socially least desirable stock. Further,

According to Porter and Kramer (2011), in the long run, in addition to good operating performance, non-financial performance like environmental and social performance also helps to a better valuation of listed companies. Aboud and Diab (2018), describe that firms listed in the ESG index have higher firm value and there is a positive relationship between higher ESG ranking firms in the index and firm value. A similar study had been conducted by Miralles-Quirós, Miralles-Quirós and Valente-Gonçalves (2018), on Brazil capital market to identify the value relevance of ESG performance in Brazilian context and found that investors positively value the CSR practices carried out by firms listed on Brazilian Stock Exchange. The study used a modified version of the Ohlson model propose by Barth and Clinch (2009). They incorporate financial performance such as Earning per Share (EPS) and non-financial performance like CSR performance to measure the firm value and price per share used to measure the dependent variable. Further, they revealed that overall results of the study support the value enhancing theory rather than shareholder expense theory.

Atan, Alam, Said and Zamri (2018) focuses on combining the effect of environmental, social, and governance factors on firm performance in Malaysian context. They found that there is no significant relationship among individual or collective factors of ESG on firm profitability and ultimately the firm value. Furthermore, combined ESG factors are positively and significantly influence the weighted Average Cost of Capital (WACC) of a company.

Furthermore, the value relevance of sustainability report disclosure was examined and shown that the annual financial reports, published by companies after the incorporation of ESG information are more value relevant than the reports published prior to incorporation of ESG disclosure (Aureli, Gigli, Medei and Supino, 2019). In addition, they also revealed that transparency is value relevant and is to be expected to improve market efficiency. The continuing commitment by businesses to behave ethically and contribute to sustainable economic development is needed to improve the quality of life of the workforce and their families as well as of the local community and society (World Business Council for Sustainable Development).

Previous literatures provide conflicting results on the relationship between ESG performance and firm value with some studies showing a positive relationship, others negative and still others showing that there is no relationship between the two variables.

Hypotheses Development

In recent few decades, the environmental deterioration caused largely by poor management of natural resources has greatly increased public interest in protection of the environment. Developed stock markets among Asian countries such as Hong Kong and Singapore are transitioning from a strong focus on environmental issues to a more social equity-based economy, which is driving greater governance performance. Moreover, the challenges of re-modelling

existing corporate social responsibility framework among Asian firms, which do not have a clear road map on how to succeed environmental performance to achieve higher levels of human well-being, as well as the ethical concerns of achieving the wealth maximization goal (Mitra and Gaur, 2020). Many studies have done on this and have shown a positive association between the introduction of environmental performance models, mechanisms and strategies and financial and economic performance (Henri & Journeault, 2010; Wagner & Schaltegger, 2004).

For firms in environmentally sensitive industries, the value-creating effect of CSR is lesser than for firms that do not belong to sensitive industries (Yoon, Lee & Byun, 2018). There are many studies have done in developed context and emerging markets, but few studies examined the Asian and Sri Lankan context. Thus, the relationship of environmental factors on firm value in this study is hypothesized as follows:

H1: *Environmental performance significantly impact on firm value of listed companies in Sri Lanka.*

The World Business Council for Sustainable Development defined that the Corporate Social Responsibility is the commitment of a business organizations to contribute to sustainable economic development. Although a general view agrees that the social responsibility increase long term benefit as well as support to the stakeholders, there is also criticism that the execution of the corporate social responsibility may distract the company business focus (Ho, 2010).
However, there is an ongoing debate about the relationship between CSR and firm value. Some researchers claim that the social performance indicators are significantly negatively related to the stock returns and abnormal returns are available for stockholders who are holding a portfolio of the socially least desirable stock. Following the results of prior research, the relationship of CSR performance and disclosures with firm value in this study is hypothesized as follows.

H2: *Social performance significantly impact on firm value of listed companies in Sri Lanka.*

Corporate governance is about putting in place the structure, processes and mechanism that ensure that the firm is being directed and managed in a way that enhances long term shareholder value through accountability of managers and enhancing organizational performance (Velnampy & Pratheepkanth, 2013). Then good corporate governance practices will help to achieve higher performance because it enhances the firm's profitability and firm's values. As well as OECD (2004) indicate that company should continuously pursue good corporate governance practices to use resources more efficiently to achieve higher growth. The corporate governance can have an important effect on the availability and cost of capital for all firms, and good corporate governance of financial firms is essential in fostering financial stability and healthy economic growth (Atacik & Jarvis, 2006). Therefore, good corporate governance practices help to achieve higher performance because it reduces frauds, company risks, inefficiencies and increase the investor's confidence. Based on the similar premise of previous literature, it is predicted that,

H3: *Corporate governance performance significantly impact on firm value of listed companies in Sri Lanka.*

Entities face varying levels of ESG based risks and opportunities based on the

industry and culture in which they operate. Companies incorporate ESG factors into their long-term strategies and communicate those factors and strategies to investors to get complete picture of that company's prospective value and to get competitive advantage (CFA Institute, 2008). There are several studies have conducted to examine the impact of environmental, social, and governance performance on firm profitability and firm value. However, there is still an ongoing debate about the relationship between firm value and ESG factors. Several studies have reported a positive impact of ESG performance on firm value. According to Porter and Kramer (2011), in the long run, in addition to good operating performance, non-financial performance like environmental and social performance also helps to a better valuation of listed companies. However, no researchers have examined the impact of ESG disclosures on the firm value of companies in Sri Lanka. Therefore, these findings can be extended to the current study to identify the impact of ESG performance on firm value in Sri Lankan context and it is hypothesized that:

H4: *The integrated* disclosures *of environmental, social and governance have significant impact on firm value of listed companies in Sri Lanka.*

ESG Reporting of Sri Lanka

Over the decade, the accounting profession in Sri Lanka has achieved a tremendous development and has become a global hub of accountants in Asia (Senaratne and Gunarathne, 2017). The universities and professional bodies in Sri Lanka play a significant contribution in achieving this status. World Bank (2015) report on "Observance of Standards and Codes on Accounting and Auditing," stated that Sri Lanka is a country that has made significant improvements in accounting and auditing practices after 2004.

Considering the ESG reporting, The Code of Best Practice on Matters Relating to Financial Aspects of Corporate Governance was issued in 1997 by the Institute of Charted Accountants of Sri Lanka (CASL) followed by the Code of Best Practice on Audit Committees in 2002, the Code of Best Practice on Corporate Governance in 2003, the Code of Best Practice on Corporate Governance in 2008 and Code of Best Practice on Corporate Governance in 2013.

While there are no mandatory requirements in place for companies to incorporate sustainability reporting, the voluntary Code of Best Practice on Corporate Governance jointly issued by the Securities & Exchange Commission of Sri Lanka and CASL in 2013 requires disclosures on Sustainability. The National Green Reporting System of Sri Lanka; The Global Reporting Initiative; Guidelines; AA 1000 Framework and Stakeholder Engagement Standard; United Nations Global Compact; ISO 9000 Quality Management; Assurance Standard; ISO 14000 Environmental Standard; ISO 26000 on Social Responsibility; OHSAS 18000 Occupational Health and Safety Standard standards are accepted for reporting purposes as described in Principle G1.7 of the Code of Best Practice on Corporate Governance (Principles of Sustainability reporting)

METHODOLOGY

Data and Sample Selection

The study obtained secondary data from the published annual financial statements of the listed companies of the Colombo Stock Exchange (CSE) for the period of 2015-2019. The Colombo Stock Exchange (CSE) had 289 companies representing 20 Global Industry Classification Standard (GICS) industry

groups at the end of 2020. The study used non-probabilistic sampling method to select the sample and it includes top 50 companies based on the highest market capitalization. And also, researcher exclude the companies which do not disclose their ESG disclosures and sustainability reports when selecting the sample.

Based on the previous literature the research framework of this study is built upon the stakeholder theory and the Ohlson's model (1995) is used to measure the firm value, assuming the firm value in terms of market value of equity is a function of the firm's financial as well as non-financial firm's information. The ESG measures were designed based on the World Federation of Exchanges (WFE) ESG metrics, which is also recommended by the CSE Sri Lanka.

Table 1: Operationalization of The Variables

ID	Category	Metric	Calculation/Measurement
E1	Environmental	GHG Emissions	Total amount, in CO2 equivalents
E2	Environmental	Emissions Intensity	Total GHG emissions per output scaling factor
E3	Environmental	Energy Usage	Total amount of energy consumed
E4	Environmental	Water Usage	Total amount of water consumed
E5	Environmental	Environmental Operations	Does the company follow a formal Environmental Policy? Yes, No
S1	Social	Employee Turnover	Percentage: Year-over-year change for full-time employees
S2	Social	Gender Diversity	Percentage: Total enterprise headcount held by men and women
S3	Social	Injury Rate	Percentage: Frequency of injury events relative to total workforce time
S4	Social	Child & Forced Labor	Does the company follow a child and/or forced labor policy? Yes/No
S5	Social	Human Rights	Does the company follow a human rights policy? Yes/No
G1	Governance	Board Diversity	Percentage: Total board seats occupied by men and women
G2	Governance	CEO duality	Does the Chairman & CEO positions are holds two different persons? Yes/No

G3	Governance	Board Independence	Percentage: Total board seats occupied by independents
G4	Governance	Sustainability Reporting	Does the company publish a sustainability report? Yes/No
G5	Governance	External Assurance	Are your sustainability disclosures assured or validated by a third party? Yes/No

Source – World Federation of Exchanges, CSE

Table 2: Measurements of Concepts and Variables

Concept	Indicators	Measurement
ESG Performance	Environmental Performance Social Performance Governance Performance	ESG Score Index
Control Variables	ROA	Net income / Average total assets
	EPS	Profit attributable to ordinary equity holders/ Weighted average No. of ordinary shares
	Firm Size	Log of total Assets
Firm Value	Tobin's Q	Total market value of firm/ Total book value of firm

Development of the Indices

Environmental, Social and Governance disclosures measured by using an ESG index developed by the authors following the World Federation of Exchanges initiatives and Refinitiv ESG scores. These two sources have employed publicly available information consisting of 2,100 data points. These scores are grouped into 15 themes that reformulate three pillar scores and the final ESG score, which reflects the company's ESG performance. The category scores are rolled into three pillar scores, which is environmental, social and corporate governance. ESG combined score is a relative sum of the category scores which vary each industry for the Environmental, Social categories and governance scores. And also, it provides a rounded and comprehensive scoring of a company's ESG performance. Each category scores are normalized to the range of 0 (for companies that have less ESG performance) to 1 (for companies that have higher ESG performance).

To calculate the environmental and social category scores, companies have been grouped based on Global Industry Classification Standard (GICS) industry

groups and industry median is used as the benchmark. The companies which outperform the benchmark assigned value of 1and vice versa. To calculate the governance category performance, "Code of Best Practices on Corporate Governance" issued by Institute of Chartered Accountants of Sri Lanka and Securities and Exchange Commission of Sri Lanka is used as the benchmark. If the company fulfilled those governance requirements assigned value of 1. Accordingly, a maximum score for Environmental, Social and Governance indices is 5 and the overall index for ESG disclosures is 15.

Empirical Model

The objective of this study is to evaluate the impact of ESG performance on firm value of listed companies in Sri Lanka. To achieve this objective, study use the following two models.

$$TQ_{it} = \beta_0 + \beta_1 ENV_{it} + \beta_2 SOCI_{it} + \beta_3 GOV_{it} + \beta_4 ROA_{it} + \beta_5 EPS_{it} + \beta_6 SIZE_{it} + \beta_7 IND_{it} + \varepsilon_{it} \quad (1)$$

$$TQ_{it} = \beta_0 + \beta_1 ESG_{it} + \beta_2 ROA_{it} + \beta_3 EPS_{it} + \beta_4 SIZE_{it} + \beta_5 IND_{it} + \varepsilon_{it} \quad (2)$$

Where; β_0 = constant term

β_1, β_2, β_3 .....are coefficient of variables

ENV_{it} = environmental performance of ith firm in t period
$SOCI_{it}$ = social performance of ith firm in t period
CG_{it} = corporate governance performance of ith firm in t period
EPS_{it} = Earnings per share of ith firm in t period
$SIZE_{it}$ = Firm size of ith firm in t period
ESG_{it} = Combined index for environment, social and governance disclosures of ith firm in t period
IND = Industry group
TQ_{it} = Tobins q is the ratio of market value of assets to book value of assets of ith firm in t period
ε_t = error term

FINDINGS

Descriptive Statistics

As per the Table 3, the mean value and standard deviation of ESG disclosures are 10.624 and 2.143 respectively. The Minimum and maximum values for ESG performance are 6 and 14 respectively. The mean value of environmental performance is 3.264, while the maximum and minimum values are 5 and 1 respectively. The mean value and standard deviation of governance performance indicate 4.008 and 0.735 respectively. Minimum and maximum values for governance performance are 3 and 5 respectively. Similarly, the mean value of social performance is 3.344, while the maximum and minimum values are 5 and 1 respectively. The Jarque-Bera test indicates that the probability value is 0.115, which underline that the data normally distributed as it is higher than 5%. According to the above statistics the companies had earn average of Rs.16.05 of earning per share during the period between 2014/2015 and 2018/2019 to the shareholders. However the standard deviation of Rs.18.83 suggest that earning per share vary within the range of Rs.34.88 and Rs.-2.77, where the maximum EPS was Rs. 90.78.

Table 3: Summary of Descriptive Statistics

	ESG	ENV	SOCI	GOV	ROA	EPS	SIZE	Firm Value
Mean	10.624	3.264	3.344	4.008	5.792	16.054	17.98	1.151
Median	11.000	4.000	3.000	4.000	4.700	10.050	17.76	0.999
Maximum	14.000	5.000	5.000	5.000	21.00	90.78	21.01	2.702
Minimum	6.000	1.000	1.000	3.000	0.980	-0.400	14.79	0.695
Std. Dev.	2.143	1.420	1.108	0.735	5.057	18.825	1.557	0.522
Skewness	-0.463	-0.304	-0.245	-0.012	1.492	1.900	0.071	1.899
Kurtosis	2.693	1.731	2.233	1.866	4.984	6.068	2.000	5.692
Jarque-Bera	4.95	10.31	4.32	6.70	66.88	134.61	5.95	126.4
Probability	0.084	0.006	0.115	0.035	0.000	0.000	0.051	0.000

Table 4: Correlation Matrix (Model 1)

Variable	Firm Value	ENV	SOCI	GOV	ROA	EPS	SIZE	IND
Firm Value	1							
ENV	0.293*	1						
SOCI	0.344*	-0.008	1					
GOV	0.340*	0.1918**	0.218*	1				
ROA	0.658*	0.216**	0.205**	0.184**	1			
EPS	0.099	0.008	-0.004	0.186**	0.376*	1		
SIZE	-0.460*	0.013	0.128	0.218**	-0.367*	0.077	1	
IND	0.235*	-0.126	-0.042	-0.165**	0.310**	0.094	-0.632*	1

Note: ** and * indicate the coefficients which are statistically significant at 5% and 1% levels, respectively.

Table 04 illustrates the correlation among the study variables and show a positive and significant relationship between environmental performance and the firm value. These two variables are moderately correlated at 0.293 with a p-value of 0.000. It indicates that the higher disclosures of environment practices increase firm value. Similarly, social and governance disclosures also have a positive and significant relationship with the firm value with moderate positive correlation at 0.344 and 0.340 respectively. The results indicate that the increases in disclosures of social or governance practices (non-financial performance) creates higher firm value and vice versa. Firm size and firm value are negatively correlated with a coefficient of 0.460 at the significant level at 1%. The control variable firm size is negatively correlated with firm value. The correlation coefficient between the environmental and

social indices are -0.008 with a probability of 0.930. Furthermore, correlation illustrates that there is a positive relationship among governance index and EPS which is evidence by coefficient of 0.186 and a p-value of 0.028.

The Coefficient of environmental performance is -0.0077 with a p-value of 0.608. These emphases that environmental performance has negative and insignificant relationship with firm value at 5% significant level. This supports the research finding of insignificant negative relationship between environmental performance and firm value by Atan et al. (2017) and Miralles-Quirós et al. (2018). At the same time there are 0.053 and 0.048 coefficients for social and governance performance with p-values of 0.006 and 0.000 respectively. Therefore, this indicates that there is a positive relationship exists between social, governance and firm value which is significant 95% confident level. That means when social or governance performance increases, firm value will be increases vice versa. As per the regression results, R-squared value reflects that the 58.28% of the total variation in firm value (Tobin's) is explained by the variables used in this model. When considering the control variables, ROA is positively correlated to the firm value and EPS is negatively related to firm value with this relationship is not significant at 1% and 5% level. Furthermore, regression results show that other control variables such as firm size and industry are negatively correlate with firm value which is significant at 5% significant level. According to the above results, implies that social, governance, return on assets, firm size and industry are reasonably significant components which supports in determining the firm value of listed companies in Sri Lanka. Table 6 shows that combined ESG performance and firm value positively correlated with a coefficient of 0.505 at 1%. These results indicate that the increases in integrated ESG practices (non-financial performance) increases higher firm value and vice versa. Furthermore, there is a positive relationship between ESG disclosures and firm size. These two variables are moderately correlated at 0.130 with a probability value of 0.126. Firm size and firm value are negatively correlated with a coefficient of 0.471 and

Table 5: Regression Results (Model 1)

Variable	Coefficient	Std. Error	Z-Statistic	P-value
C	4.5081	0.7554	5.97	0.000
Environmental	-0.0076	0.0149	-0.51	0.608
Social	0.0528	0.1913	2.76	0.006
Governance	0.0478	0.2464	1.96	0.050
ROA	0.0193	0.0035	5.39	0.000
EPS	-0.0023	0.0012	-1.84	0.066
Firm Size	-0.1984	0.0383	-5.18	0.014
Industry	-0.0714	0.0292	-2.45	0.000
R-squared(R^2)	0.5828		Wald Chi2(7)	101.13
Adjusted R-squared	0.5647		Prob > Chi2	0.0000

significant at 1% level. ROA and EPS are positively correlated with coefficients of 0.180 with a p-value of 0.033. The correlation coefficient between firm size and return on assets is -0.593 with a probability value of 0.000.

As per the table 7, the coefficient of integrated ESG disclosures is 0.0164 which is significant at 5% level. This emphasis the ESG disclosures have positive and significant relationship with firm value at 5% significant level. It means firm value (Tobin's Q) increases by 0.0164 when the integrated disclosures of ESG increased by one unit. Based on that we conclude that a firms with have higher ESG performance tend to have a higher firm value. The regression line represents a positive coefficient of 0.0213 at significant level of 5% or 1% since the p-value is 0.000. This emphasis a positive relationship between return on assets and firm value. In term of fitness of the model, the coefficient of determination (R-squared) indicates the variation in dependent variable, firm value is explained by 44.27% of the selected independent variables in the analysis. The probability value of the F-statistics (Prob>Chi2) is 0.000 and it is significant at 5% significant level or 95% of confidence level. Hence it can be concluded that the overall model is significant. When considering the other control variables, earnings per share, firm size and industry variables are negatively related to firm value with a coefficient of

Table 7: Correlation Matrix (Model 2)

Variable	Firm Value	ESG	ROA	EPS	SIZE	IND
Firm Value	1					
ESG	0.505*	1				
ROA	0.616*	0.220*	1			
EPS	0.119	0.147	0.180**	1		
Firm Size	-0.471*	0.130	-0.593*	0.115	1	
Industry	0.247*	-0.147	0.454*	0.022	-0.632*	1

Note: ** and * indicate the coefficients which are statistically significant at 5% and 1% levels, respectively.

Table 6: Regression Results (Model 2)

Variable	**Coefficient**	**Std. Error**	**Z-Statistic**	**Prob.**
C	3.9191	0.7246	5.41	0.000
ESG	0.0163	0.0083	1.97	0.049
ROA	0.0212	0.0045	4.69	0.000
EPS	-0.0004	0.0012	-0.35	0.727
Firm Size	-0.1620	0.0364	-4.45	0.000
Industry	-0.0547	0.0271	-2.02	0.044
R-squared (R^2)	0.4427		Wald Chi2(5)	84.89
Adjusted R^2	0.4185		Prob > Chi2	0.0000

-0.000432, -0.162011 and -0.054740 respectively. Furthermore, earning per share is not statistically significant. However, firm size and industry are significant at 5% level.

Hypotheses Testing

The first hypothesis of this study states that environmental performance significantly impacts on firm value of listed companies in Sri Lanka. Based on the findings of this study (model 1) the first hypothesis is rejected because the regression results show that the coefficient of environmental performance is -0.0077 with a p-value of 0.608. This emphasis that environmental performance has negative and insignificant relationship with firm value.

The second hypothesis is defined as social performance significantly impact on firm value of listed companies in Sri Lanka. When analyzing regression model 1, it is found that social performance is one of the most important measures that affects the firm value and there is positive and significant relation in between those two variables. Hence, the researcher accepted the second hypothesis.

The study also accepted the third hypothesis of this study that the corporate governance performance significantly impacts on firm value of listed companies in Sri Lanka. Results of the analysis showed a positive and significant relationship among them. The correlation between firm value and governance performance is 0.340 while the regression coefficient of governance performance is 0.0479 in regression model 1. Furthermore, this relationship is significant at 5% level. The final and fourth hypothesis of this study that the integrated disclosures of environmental, social and governance have significant impact on firm value of listed companies in Sri Lanka is accepted by the researcher based on the regression results of model 2. With the coefficient of 0.0163 and a p-value of 0.049. Therefore, results of the regression model 2 reveal that combined ESG disclosures significantly influence firm's value of listed companies in Sri Lanka.

CONCLUSION

This study contributes to the literature by examining the impact of ESG performance on firm value in Sri Lanka. Overall, the results of the empirical analysis support an association between ESG disclosures and firm value of the companies. Furthermore, study find different distinctions between the Environmental, Social and Governance component influences, and the researcher can conclude that investors have started to concern and integrate extra non-financial performance into their investment decisions. The findings of the study reveal that, the environmental disclosures (Hypothesis 1), are negatively and insignificantly influence firm value (Tobin's Q) of companies listed in CSE. This relationship implies that companies with less environmental disclosures, have higher firm value. This supports the two research findings of insignificant negative relationship between environmental performance and firm value by Atan et al. (2017) and Miralles-Quirós et al. (2018).

The results regarding the influence of the social performance on the firm value (Hypothesis 2), it was found that there is positive and significant relationship between social performance and firm value of companies listed in CSE. This relationship is significant at 5% level. Similarly, governance performance (Hypothesis 3) is positively and significantly impact on firm value. This relationship indicates that companies with higher social and governance disclosures, have higher firm value.

The main objective of this study is to examine the impact of integrated environmental, social and governance disclosures on firm value. For this purpose, tested the fourth hypothesis of this study and regression results empirically show that combined score of ESG performance significantly and positively influence the firm value (Tobin's Q) as found by Miralles-Quirós, Miralles-Quirós and Valente-Gonçalves, (2018) and Abound and Diab, (2017). The significant positive relationship implies that companies with higher ESG disclosures, perform well in the market. In addition, ESG is also perceived as increasing firm value, in other words, they are relatively higher valued in the market. The study recommends conducting analysis based on both primary and secondary sources to draw more insights from stakeholder perspectives.

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