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THE IMPACT OF SUSTAINABILITY REPORTING ON FIRM VALUE: WITH SPECIAL REFERENCE TO PUBLIC LISTED COMPANIES IN SRI LANKA

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ABSTRACT

Sustainability has become an important concept during the past decades due to the enormous increase in sustainability-related issues faced by business organizations. It is a concept which consists of three facets, namely economic, environmental, and social. Even though there are many studies conducted related to sustainability reporting (SR), many of them are related to financial performance and there were only a few studies related to firm value. However, similar studies which have been carried out in the international context pertaining to this topic might not apply to the Sri Lankan context directly. Since there is a major shortfall of academic work conducted, the foremost intention of conducting this research work is to evaluate the effect of SR on firm value in the Sri Lankan context. This research also identifies the level of SR according to the Global Report Initiative (GRI) Framework. SR is measured by generating a disclosure index using the GRI G4 guidelines, while Tobin's Q ratio is used to measure the firm value. The simple random sampling technique was employed to get the sample of 20 companies that are listed on the Colombo Stock Exchange (CSE), Sri Lanka out of the population of companies who make SR practices in line with the GRI framework. The data was collected through means of the reports generated annually by the selected sample of companies for the period of study from 2016 to 2020, which are available to the general public. Furthermore, the researcher applies a panel data regression model to analyze the data. The results of the study indicate that the impact of SR on firm value is statistically significant with a negative relationship between SR and firm value when controlled for the effect of firm size and leverage. The findings of this study will influence the capital market participants to make more informed investment decisions.

Keywords: Disclosure index, Firm value, GRI framework, Sustainability reporting, Tobin's Q

1. Introduction

The concept of sustainability, also known as the triple bottom line, indicates that maintaining social consensus, preserving the natural resources of the environment and securing society's economic growth in an equitable manner as the ultimate goals of sustainability (Laskar, 2018). Recently, stakeholders' interest in corporate sustainability practices has increased (Amran & Keat Ooi, 2014). As a result, companies have increasingly provided their engagement with sustainability through reporting practices. This in turn creates a strong relationship between the firm and its interested parties, which is vital for the growth of the firm (Laskar, 2018) and to build positive perceptions which helps to maintain the legitimacy of the business (Amran & Keat Ooi, 2014).

World Business Council for Sustainable Development (2002), illustrates that even if the SR has an evolving history, some companies have not yet produced their first sustainability report while some other companies move towards the next step of reporting sustainable development in more complex areas after producing and publishing the reports for many years. When it comes to the Sri Lankan context, the number of companies that issue sustainability reports has rapidly increased, even though SR is a voluntary practice and not a mandatory requirement (Dissanayake et al., 2016; Sooriyaarachchi, 2018). Even though it is not a mandatory requirement in Sri Lanka to engage in SR activities, there are some professional accounting bodies like the Association of Chartered Certified Accountants (ACCA) and trade associations such as the Ceylon Chamber of Commerce (CCC) that play a dominant role in promoting SR by imposing slight regulatory pressures on business organizations (Beddewela & Herzig, 2013). However, SR is still a developing topic in Sri Lanka despite the number of environmental issues faced by the country having increased in the present than in the past (Goger, 2013). Today, ethical investment has taken global attention as contrary to the traditional business belief of generating profits without paying consideration to the environmental and societal effects of the business organization. Due to this, at present, capital market participants have started to consider investing in sustainable companies and this has become a value-enhancing strategy for business organizations (Lo & Sheu, 2007). As cited in Swarnapali and Le (2018), Moser and Martin (2012) stated that disclosure of such information will lead to higher share prices and higher firm value as this information influences the capital market participants to make more accurate risk profiles and financial forecasts to the firm. However, research on the impact of SR on firm value is lacking in the South Asian context. Further, the contradictory findings of previous researchers encourage further research exploring the relationship in other contexts.

In view of the above, this study explores the association between SR and firm value further. As a result, this research work aims to determine the impact of SR on firm value in Sri Lanka, a country in South Asia with cultural roots embedded in sustainability due to its predominant Buddhist culture. Furthermore, corporate SR has been improving in Sri Lanka over the years (Cooray, Senaratne, Gunarathne, Herath, & Samudrage, 2022; Dissanayake et al., 2016) which makes it an interesting setting to conduct the current study.

1.1. Problem statement and research question

The majority of the studies related to SR and firm value are based on developed countries such as the USA, Australia, and Germany (Nguyen, 2020; Yu & Zhao, 2015), and there are only limited studies carried out in the Sri Lankan context (Swarnapali & Le, 2018) to identify the association between the SR and the firm value. According to empirical studies with regard to the impact of SR on firm value, different authors provide contradictory arguments. Some scholars have found that there is a positive association between SR and firm value. (Lo & Sheu, 2007; Loh et al., 2017; Yu & Zhao, 2015). In contrast, Nguyen (2020) found that SR is negatively related to the firm's market value. In the meantime, Iswati (2020), found that SR does not affect the firm value.

Because of the above contradictory arguments, it is still debatable and a researchable area. Therefore, to fill this knowledge gap, this study makes an effort to examine whether there is an impact of SR on firm value according to the Sri Lankan context. Hence the research question guiding the study is; Does sustainability reporting have a significant impact on firm value?

2. Literature Review

2.1. Established theoretical perspectives

Stakeholder theory, legitimacy theory, agency theory and signaling theory are the 04 prevailing theories which highlight the requirement of SR towards the firm value. Sustainability reports build strong relationships with all the interested parties in the organization and assist the organization in cost reduction by allocating scarce resources efficiently and effectively (KPMG, 2013; Laskar, 2018). Moreover, the stakeholder theory ensures a positive association between SR and firm value as when firms incorporate sustainability practices (social responsibility practices) into their business operations, it would support the organizations in achieving the stakeholders' support for a longer period which then results in enhancing the firm value (Nguyen, 2020).

Further, signaling theory also recommends that sending signals by the organization to all the stakeholders about their strategies which are mainly executed towards solving environmental issues is also important to let them know about the voluntary disclosures made by the organization (Abu Bakar & Ameer, 2011; Clarkson, Li, Richardson, & Vasvari, 2008). Moreover, such positive signals will attract capital market participants towards the organization for investment purposes and thereby, increase the firm value (Dionne & Ouederni, 2011; Loh et al., 2017).

According to Cho and Patten (2007), legitimacy theory demonstrates that most organizations which are performing well towards the benefits of the environment require their annual financial reports to be disclosed with more positive environmental-related information. Thereby, the need to prepare sustainability reports by the organizations has emerged and such transparent sustainability reports prepared by the organizations ensure that they are performing well according to the sustainability practices (social responsibility practices) and have good compliance with the business operations which will lead towards increasing the firm value (Nguyen, 2020).

The study conducted by Loh et al. (2017), explained that a reduction in the agency cost of the organization could influence the profits generated by the organization and the estimated risk evaluations which will thereby influence the firm value. On the contrary, the agency theory also supported a negative relationship between SR and firm value. According to Nguyen (2020), agency theory explains that making investments by organizational managers in Corporate Social Responsibility (CSR) or SR is a waste of organizational resources. This is mainly due to the managers' intention of gaining a reputation by using the organizational scarce resources at shareholders' costs (Barnea & Rubin, 2010; Surroca, Tribo, & Waddock, 2010).

2.2. Empirical reviews related to sustainability reporting and firm value

Research presents contradictory findings about the association between SR and firm value. A Singapore-based study conducted by Loh et al. (2017), found a positive relationship between SR and the firm value by taking a sample of 502 companies in different sectors which are listed on the Singapore Exchange. Similarly, Yu and Zhao (2015) found that there is a positive relationship between these two variables based on data from multiple countries. Further, they revealed that these positive impacts mainly derive from the countries that have disclosed sustainability practices at a higher level and those that have taken actions to protect their investors. Also, Lo and Sheu (2007), found a significant positive association between SR and firm value. On the contrary, a study by Nguyen (2020), found a significant negative relationship between the level of SR and firm value based on a sample of the largest listed firms in Germany. On the other hand, Iswati (2020) revealed that there is no effect of the SR disclosures on the firm value based on a sample of manufacturing companies in Indonesia.

To the researcher's knowledge, only one study related to this area could be found in the Sri Lankan context. Swarnapali and Le (2018) have found that there is a positive relationship between the SR and firm value. Here, the independent variable was measured as a binary variable and the dependent variable was measured using Tobin's Q ratio. To arrive at this result, they employed a regression analysis of the selected sample. Further, they explained that the companies which made higher disclosures on sustainability would be able to receive a surcharge from the investors.

3. Methodology

3.1. Research design

The previous researchers who conducted their research on the impact of SR on firm value (Loh et al., 2017; Nguyen, 2020; Swarnapali & Le, 2018; Yu & Zhao, 2015) have mostly conducted their research using quantitative techniques in a positivist research paradigm. Therefore, this study is explanatory research that incorporates quantitative techniques and a positivist research paradigm to carry forward this research.

3.2. Conceptual framework

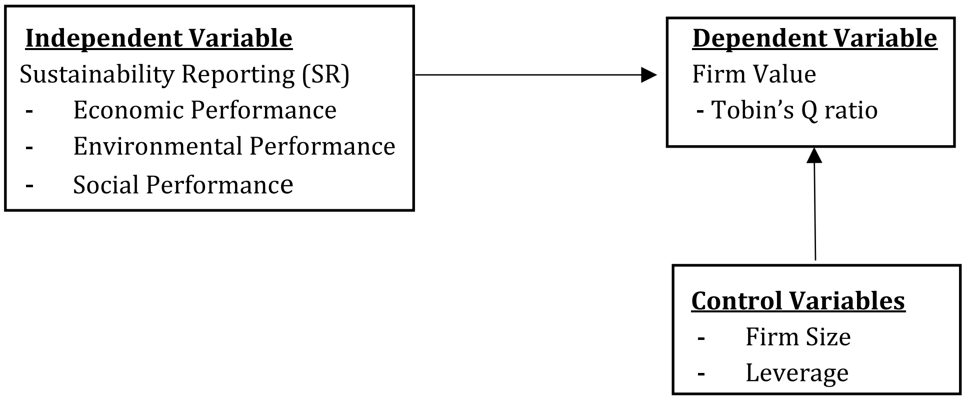

Figure 1. Conceptual framework.

3.3. Eligible population of the study

Table 1. Eligible population.

Description	Number of companies
Companies listed in CSE as at 31.05.2021	283
Less: Companies that do not report on sustainability	(155)
Companies that report on sustainability	128
Less: Companies that do not report on sustainability using the GRI framework	(72)
Total companies eligible for the population	56

A simple random sampling technique was employed to select the sample of 20 companies out of 56 companies that used the GRI framework to report sustainability practices and which were listed in CSE as of 31st May 2021. This research incorporated panel data and was conducted by using secondary data sources that can be collected through stand-alone sustainability reports or the publicly available annual reports which were published on the company website or CSE website for the period of 2016-2020.

Based on the study conducted by Asuquo, Temitayo, and Raphael (2018), the independent variable, SR, is measured by generating a sustainability disclosure index using the GRI G4 guidelines. This index was made up of the three facets of sustainability. The disclosure index will be calculated by assigning "0" points when a company has not disclosed any indicator and "01" points will be allocated when a particular company disclosed any indicator. And if the disclosure made by the company is quantitative the researcher will be assigned "02" points while "03" points will be assigned if the disclosure is qualitative (Asuquo et al., 2018). Finally, the disclosure index will be calculated by taking the total occurrence of the indicators disclosed and the total number of indicators that should be disclosed. Accordingly, the core disclosures consisting of GRI G4 guidelines have generated a maximum score of 273 points. According to that, the maximum score of disclosure for the economic aspect, environmental aspect and social aspect are 27, 102 and 144 points respectively. The dependent variable, firm value was measured using

Tobin's Q ratio (Iswati, 2020; Lo & Sheu, 2007; Swarnapali & Le, 2018). Based on the previous research (Lo & Sheu, 2007; Nguyen, 2020; Swarnapali & Le, 2018), this study used firm size as a control variable in order to separate the effect of firm size on the firm value, as the sample of this study has consisted of firms which vary with their size and leverage is used as a control variable due to its unfavourable effect on the firm value. Moreover, these control variables were measured using the natural log of total assets and debt-to-equity ratio respectively. The regression analysis technique is executed for analyzing the panel data to carry out this research to achieve the primary objective of assessing the impact of SR on firm value.

$$Firm\ Value_{it} = a + ß_1 SRDI_{it} + ß_2 SIZE_{it} + ß_3 LEV_{it} + \mu_{it}$$

In the equation, *a* denotes the intercept, *i* denotes the entity, *t* represents the time period and μ represents the error term. Finally, *ß* stands for the regression coefficients of the variables of SRDI – sustainability reporting disclosure index, SIZE – firm size, LEV – leverage.

4. Analysis and Discussion

Table 2. Descriptive statistics.

Variable	Mean	Median	Maximum	Minimum	SD
ECO	0.5385	0.5185	0.9630	0.1111	0.2316
ENV	0.3503	0.3627	0.9706	0.0294	0.2180
SOC	0.4233	0.3958	0.9583	0.1042	0.1680
SRDI	0.4074	0.3883	0.9267	0.1392	0.1739
LEV	0.5539	0.5411	0.9703	0.0100	0.2512
SIZE	24.1050	24.0357	27.7356	20.4655	1.6221
Firm value	0.5492	0.4264	1.7346	0.0466	0.4379

The results presented in Table 2 convinced that the majority of the companies who report sustainability in accordance with GRI G4 guidelines in Sri Lanka have higher compliance on economic disclosure than social and environmental disclosures (because the highest compliance mean rate is reported by the economic disclosure when compared to social and environmental disclosures). This has not been aligned with the research findings of Dissanayake et al. (2016); and Sooriyaarachchi (2018), who show that publicly listed Sri Lankan companies have a higher mean compliance rate to the social disclosure over the other 02 indicators. Sooriyaarachchi (2018), further indicates that GRI G4 guidelines allocate the highest score to social disclosure and that makes the companies start disclosing more on social indicators. It is also shown that the mean compliance rate of overall SR by the sample is 40.74% which is relatively a lower compliance mean rate when compared with the study performed by Swarnapali and Le (2018) in Sri Lanka (it shows the Mean = 63% and SD = 48%) according to GRI G4 guidelines. Finally, when it comes to this study, it can be concluded that there are many disclosures under GRI G4 guidelines that companies were not reporting in their annual reports or standalone sustainability reports even if they follow SR practices. Further, SheConsults (Pvt) Ltd (2016), mentioned that all the sectors listed in CSE need to be encouraged to disclose more material aspects of SR that are represented in the GRI framework. It is also evident that as a developing country still Sri Lankan listed companies were not adherent to the GRI framework in a consistent manner and they reveal only a few disclosures.

Table 3. Fixed effect panel regression results.

Variables	Coefficient	t- statistic	*p*-value	VIF
Intercept	8.6977*	3.6622	0.0006	
SR	-1.3928*	-3.1756	0.0026	1.0319
SIZE	-0.2674*	-2.6906	0.0098	1.0269
LEV	-2.1893*	-4.0565	0.0002	1.0060
R^2 – Overall	85.94%			
Adjusted R^2	79.65%			
F-test	13.6809 and p = 0.0000			
Durbin-Watson test	1.8515			

*Notes: Dependent variable: Firm value. * Significance at the 1% level.*

The final objective of this study is to assess the impact of SR on firm value. To achieve this objective, a panel data regression model is employed. Under the panel data regression model, fixed effects model (FEM) specification is chosen over pooled OLS and random effects model (REM) based on the results arrived from the Hausman test and the Redundant fixed effect test. Therefore, FEM was employed by this study to control the problems that arise due to unobserved heterogeneity of data and endogeneity when analyzing the panel data.

As per Table 3, there is a significant negative association between the SR and firm value ($ß_1$ = -1.3928, p = 0.0026) which is compatible with the findings of Nguyen (2020). This negative association could be due to the variations in SR practices among Sri Lankan companies and due to many companies still being in their initial stage of SR (Kowsana & Muraleethran, 2021). This negative relationship between SR and firm value is also supported by the agency theory. Agency theory explains that making investments by the organizational managers on SR is a waste of the organization's resources (Nguyen, 2020). That is mainly because the managers intend to gain a reputation by using the organizational scarce resources at shareholders' costs (Barnea & Rubin, 2010; Surroca et al., 2010).

Further, Nguyen (2020) has mentioned that the negative association between SR and firm value has been supported by another theory named slack resources theory. Slack resources theory demonstrates that spending in SR will be a reason for the reduction of firm value because the managers' focus on achieving the organizational goals will be distracted when focused on covering the expenditure that arises from SR with the use of the company's revenue (Campbell, 2007). On the contrary, these findings will deny the signaling theory, legitimacy theory and stakeholder theory which discussed a positive association between SR and firm value.

Moreover, the firm size which is one of the control variables of the study also has a significant negative relationship with the firm value ($ß_2$ = -0.2674, p = 0.0098) while the second control variable of firm leverage also has a significant negative impact on the firm value ($ß_3$ = -2.1893, p = 0.0002). The current findings were contradictory to the empirical findings of Lo and Sheu (2007); Loh et al. (2017); Swarnapali and Le (2018); Yu and Zhao (2015), who revealed a positive relationship between SR and firm value and Iswati (2020) who convinced that there was no any relationship between SR and firm value.

5. Conclusion and Implications

The findings of this study concluded that there is a significant negative association between the SR and firm value when controlled for the effect of firm size and leverage. This negative association is supported by the slack resources theory and agency theory which revealed that making investments in sustainability practices is a wastage of an organization's scarce resources and shareholders' funds. Having a sample of 20 publicly listed companies and not performing a robustness test to assess the sensitivity of the results can be considered as the limitations of this study.

Further, this study provides significant implications for stakeholders such as firms, standard setters, students, and academicians as it is important for them to know about how SR influences the firm value. Thereby, they have the ability to adapt the relevant implementing actions, to make better decisions about selecting suitable standards and procedures which are relevant for executing and reporting sustainability practices which lead towards achieving business goals at their best and provide a greater knowledge for the standard setters to support and uplift the organizations in order to accompany sustainability practices by incorporating relevant principles and guidelines.

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