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CORPORATE SUSTAINABILITY REPORTING AND FIRM VALUE: EVIDENCE FROM A DEVELOPING COUNTRY

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Abstract

Engaging in sustainability activities and their disclosures are common in the recent business setting around the globe. It is therefore vital to explore the consequences of sustainability disclosure. Consequently, the aim of this paper was to discover whether corporate sustainability disclosure has a potential impact on the market value in a developing country. The data was collected from 220 companies listed in the Colombo Stock Exchange (CSE) in Sri Lanka over a period of four years. Regression analysis was executed on the panel data to achieve the study objective. The results revealed a positive relationship between sustainability reporting (SR) and firm market value, accepting the value-enhancing theory. This finding suggests that investors pay a premium in the capital markets for firms that perform in an environmentally and socially responsible manner, compared to firms do not perform in a similar manner. This study contributes significantly to the extant literature by broadening the geographical context, which generally has been excluded from corporate disclosure studies.

Key words: corporate sustainability reporting, firm value, panel data, Tobin's Q, value-enhancing theory

Introduction

Scholars use corporate social responsibility (CSR) and sustainability (and reporting) as interchangeable concepts (Montiel, 2008). The core underlying reason for SR is to convey to the public both the transparency and accountability of the firm in the conduct of its affairs (Godha & Jain, 2015). Engaging in sustainability activities can be a costly exercise for a firm (Bhatia & Tuli, 2015). Even

though sustainability information disclosure may prove costly to a firm in the short-run, it provides many benefits over the long-run. By engaging in CSR activities, a firm enjoys a set of direct and indirect benefits. A firm benefits directly in the shape of cost and risk reduction, while indirectly in the way of competitive advantages. In a wider sense, firms turn out to be more attractive to investors by exhibiting CSR (Carroll & Shabana, 2010). Further, there is evidence that SR improves internal processes, engages stakeholders and persuades investors, all of which contribute to enhance shareholders' value in different ways (Godha & Jain, 2015).

Firms eventually tend to disclose sustainability information voluntarily. Firms do this due to two reasons (De Villiers & Marques, 2016). The first reason is to conform to social expectations and thereby ensure continuous access to resources and markets (i.e. customer support, labor and financial capital). The second reason is to provide additional information that permits capital market participants to more precisely assess firms' financial forecasts and risk profiles, potentially leading to higher share price and higher firm value (Moser & Martin, 2012). Consequently, SR firms are appraised by capital market participants who will then appreciate that investing in SR is a strategy for obtaining business legitimacy and also a method of creating value-relevant information (Lo & Sheu, 2007). Accordingly, the objective of this study is to examine the association between SR and firm value.

Literature Review

Social and environmental reporting as an additional disclosure mechanism has attracted increasing interest from accounting researchers, due to the role that reporting plays in firm valuation (Moser & Martin, 2012). SR is the outcome of investing a significant amount of resources and therefore examining its value-relevance is imperative (Kuzey & Uyar, 2017). Over the years, investors' awareness of sustainability as a viable corporate strategy has grown considerably. Investors, being the key stakeholders in firms, have a need for different types of information. But research to date can show only limited evidence that shareholders recognize social, environmental and sustainability engagements as vital needs, particularly outside the USA (Yu & Zhao, 2015). Jo and Harjoto (2011) also emphasized that CSR has continued to be a highly interesting subject from the viewpoint of whether CSR investments are value-creating, value-destroying, or even value-irrelevant. The debates about responsibility reporting continue to grow without reaching a clear consensus on its meaning or value.

In line with the literature, researchers suggest that causality runs from SR to firm value. Alternatively, an argument about reverse causality direction, that is, from firm value to SR can be assumed. But, such an argument in reverse is less plausible since there is no theoretically sound argument that posits why firms with higher firm value would disclose greater sustainability information. As in common with literature, researchers rely on theory to provide the rationale for hinting at causality. The impact of SR on firm value is based on two alternative theories (Yu & Zhao, 2015). The value-

enhancing (also known as the value-creating) theory on sustainability contends that integration of both environmental and social responsibilities into corporate strategies and practices decreases firm risk, thereby promoting long-term value creation. Yu and Zhao (2015) documented that sustainability is emerging as a critical strategy for minimizing conflicts among various stakeholders, resulting in less risky corporate behavior and stable growth. Thus, the lack of a long-term view of environmental and social sustainability may limit a firm's future growth opportunities. Besides, sustainability engagement reduces the information asymmetry (Cho, Lee, & Pfeiffer, 2013), which renders the firm less likely to engage in corporate tax aggressiveness (Lanis & Richardson, 2012). On the whole, sustainability engagement helps firms to maintain their positions within the market on a long-term basis, thereby opening the doors to better investment packages (Yu & Zhao, 2015). Thus, the value enhancing theory encapsulates the idea that a firm that discloses sustainability information will have a higher market value than a comparable nondisclosure firm. Supporting this view, Cheung et al. (2010) affirmed that there is a positive and significant relationship between SR and market valuation among Asian firms. Some other researchers also conclude that sustainability engagement positively influence firm value (De Villiers & Marques, 2016; Jo & Harjoto, 2011; Lo & Sheu, 2007; Yu & Zhao, 2015). By conducting a study based on the listed firms in Turkey's emerging market, Kuzey and Uyar (2017) also declared that sustainability disclosure proved value relevant in their research setting. The foregoing findings present sufficient evidence to support the view that being sustainable helps a firm to increase its value.

Opposed to this view, proponents of the value-destroying theory (also known as shareholder expense theory) suggest that switching from the pursuit of profit to ethical concerns can impair opportunities to maximize the shareholders' profit (Yu & Zhao, 2015). They believe that sustainability engagement can lead to a diversion of resources and investment in other activities that would not be in the best interests of shareholders. Based on this argument, implementation of sustainability strategies may not be cost-effective and therefore, it is more likely to diminish the value of a firm (Yu & Zhao, 2015). A similar idea was set forth by Barnea and Rubin (2010) using a US sample. They argued that a firm's managers (and block holders) may tend to over-invest in social responsibility activities at the cost of shareholders for their private benefit and to build up their reputation as socially responsible executives. Consistent with this theory, Crisóstomo, Freire and Vasconcellos (2011) documented that CSR had a value-destroying effect in Brazil since a significant negative correlation between CSR and firm value was observed there. Caught between these two opposing arguments, the researchers could not come up with a clear idea regarding the trend of the association between firm value and SR. Consequently, the following hypothesis is developed.

H_1. Sustainability reporting has a significant impact on firm value

Methods

The sample was comprised of

220 firms that were publicly listed on the CSE from 2012 to 2016, producing a total sample of 880 firm-year observations. The sample represented 81 percent of the total population. The remaining 19 percent of firms was excluded because of missing annual reports, incomplete information, late listing and discontinued operations during the given period.

Measurements

The independent variable SR was measured as a binary variable, which was scored "0" if a particular company did not publish a sustainability report and as "1" if the company issued a sustainability report. Since all firms did not publish stand-alone (separate) sustainability reports, the annual reports were examined and checked to see whether they contained sustainability information or not. As is normal in the emerging markets, Sri Lankan firms are not compelled to disclose sustainability and related information. Therefore, firms voluntarily disclose this information without following any particular standard or uniformity in format. Crisóstomo et al. (2011) also pointed out that most of the researchers who use data from the emerging markets struggle to measure the social and environmental disclosures, due to various reasons such as the voluntary nature of disclosure, lack of uniformity in reporting format and the absence of standard guidelines. Unfortunately, sufficient data was not available to develop a sustainability index even for the firms that have been recognized for their sustainability disclosure policies. Thus, following the prior studies (Kuzey & Uyar, 2017; Lo & Sheu, 2007; Yu & Zhao, 2015), the SR variable was operationalized as a binary variable

Firm value was measured by Tobin's Q, which was defined as the ratio of the firm's market value to its accounting (book) value (Crisóstomo et al., 2011). To explain the firm value for sustainability information purpose, firm value was measured as the Tobin's Q. Notably, accounting, economic, and finance literature recognize that Tobin's Q is the widely used proxy for firm value (Crisóstomo et al., 2011; Jo & Harjoto, 2011), which is a market-based indicator. The measure of firm value using Tobin's Q is preferred more, since it is less affected by managerial manipulation and different accounting methods compared to other accounting measures (Omar & Zallom, 2016). Given that SR is not the sole factor that influences firm value, a few variables have been incorporated as controls as suggested by previous studies. It regressed Tobin's Q on a range of variables corresponding to the hypothesis, including firm size (FSZ), which proxies as the logarithm of total assets, leverage (LEV) which is the indicator of a firm's financial structure (Cheung et al., 2010; Crisóstomo et al., 2011; Jo & Harjoto, 2011; Kuzey & Uyar, 2017; Lo & Sheu, 2007; Yu & Zhao, 2015), firm's performance (Cheung et al., 2010; Kuzey & Uyar, 2017; Lo & Sheu, 2007) which is measured in terms of return on equity (ROE), sales growth (SG) which is measured as a percentage of one-year sales change (Cheung et al., 2010; Jo & Harjoto, 2011; Lo & Sheu, 2007), and firm age. Besides, year dummies also acted as controls following the previous studies.

Results

Variables with continuous values were winsorized at the top and bottom one percent (1%) of their distribution, to diminish the effects of extreme values in OLS regression. Descriptive statistics of the variables used in the estimation of model (1) are presented in Panel A of Table 1.

Table 1. Results of Descriptive Statistics and Correlation Analysis

Panel A: Descriptive Statistics

	Mean	Median	Standard Deviation	Tolerance	VIF
Tobin's Q	0.91	0.69	0.70		
SR	0.63		0.48	0.934	1.071
FSZ (Ln)	22.02	22.10	1.51	0.835	1.197
LEV	0.40	0.37	0.30	0.823	1.216
ROE	0.09	0.09	0.11	0.862	1.160
Sales growth (%)	0.09	0.07	0.22	0.907	1.102
Age	2.95	3.14	0.88	0.923	1.083

Panel B: Correlation Matrix

	Tobin's Q	SR	FSZ	LEV	ROE	SG	Age
Tobin's Q	1						
SR	.170**	1					
FSZ	-.232**	.098**	1				
LEV	-.428**	.162**	.343**	1			
ROE	.198**	.175**	.227**	.097**	1		
Sales growth	.120**	.154**	.039	.094**	.270**	1	
Age	.243**	-.078*	-.122**	-.248**	-.060	-.083*	1

Note: N =880; *, ** indicate statistical significance at the 0.05 and 0.01 level respectively (2-tailed tests).

Tobin's Q as the proxy of firm value has a mean value of 0.91. SG has an average of 0.09. The median and standard deviation for Tobin's Q are 0.69 and 0.70 and for SG 0.07 and 0.22 respectively. The mean and standard deviation for SR are 0.63 and 0.48 respectively. The mean values for the rest of the variables are 22.02, 0.40, 0.09 and 2.95 for FSZ, LEV, ROE and firm age, respectively. The highest variance inflation factor (VIF) value of 1.216 suggests that collinearity among variables is very low, indicating that there is no chance of a multicollinearity issue. This argument was reinforced by the tolerance values as well. The tolerance values of all the variables were very high (> 0. 823). The Pearson correlation among the variables is shown in Panel B of Table 1. As hypothesized, SR has a significant association with the firm value. The result confirmed there is a positive association between SR and firm valuation in Sri Lankan firms, suggesting that firms that act in socially responsible ways are more likely to have a premium value. This finding was further validated by the regression analysis results (Table 2). It also shows that all the control variables have significant correlations with the dependent variable at the alpha level of 0.01.

Table 2: Panel Data Analysis Results – Relationship between SR and Tobin's Q

	Pooled OLS		Fixed Effects	
	Coefficient	P (Sig)	Coefficient	P (Sig)
Observations	880		880	
No. of groups			220	
Intercept	2.065	0.000	6.570	0.000
SR	0.306	0.000	0.205	0.000
FSZ	-0.070	0.000	-0.267	0.000
LEV	-0.955	0.000	-0.596	0.000
ROE	1.393	0.000	0.590	0.000
Sales growth	0.267	0.004	0.102	0.097
Age	0.131	0.000	0.085	0.522
Year effect	Yes		Yes	
R^2 - overall	0.3386		0.1954	
F-test				
χ^2		12.11		
Prob.		0.0000		
Hausman test				
χ^2		43.80		
Prob.		0.0000		

Panel regression was used to determine whether the SR significantly influenced firm value by analyzing the results of the multiple regression models, which were summarized and tabulated. To control the unobserved heterogeneity in the data, problems relating to the estimation of fixed and random effects were incorporated. A recent study conducted by Pantzalis and Park (2014) noted that previous researchers had struggled to find good instrumental variables as a potential solution to the endogeneity problem; therefore, in their study they suggested fixed effects panel regression. From this it is clear that the key advantage of the fixed effects model (FEM) is in controlling the possible effects of unobservable variables by using dummies, in the case of panel data analysis. As a result, both the FEM and random effects model (REM) are used to test the formulated hypothesis regarding corporate SR and firm value. At the same time, the Hausman test was employed to select the appropriate specification between FEM and REM. The specification tests concluded that FEM was the best method to interpret the association between sustainability disclosure and firm value. Thus, the R^2 value apparent in Table 2 under the FEM is 19.54 percent. As depicted in the table 2, the coefficient of SR shows a positive and statistically significant effect on Tobin's Q, under the FEM ($p < 0.01$). The finding was in line with the prediction, and so hypothesis was accepted. Where control variables are concerned, both FSZ and LEV negatively influenced firm value at the level of 0.001, whereas ROE and SG had positive influence on firm value at the level of 0.01 and 0.1 respectively.

Discussion

The current findings go hand in hand with the literature (Cheung et al., 2010; De Villiers & Marques, 2016; Jo & Harjoto, 2011; Kuzey & Uyar, 2017; Lo & Sheu, 2007; Yu & Zhao, 2015), thereby providing ample evidence of a significantly positive association between corporate SR and firm value. Furthermore, the findings of this study support the value-enhancing theory, which proposes that a firm's involvement with SR adds a value to that firm. When a firm engages in socially commendable behavior, the perception of society about the firm would be much more favorable and consequently the firm is likely to be rewarded with a premium value in the capital markets.

In other words, the ethical reputation of a firm could be regarded as an intangible asset that shapes the market price of the firm's shares while rewarding the investors in the capital markets. This is because, a sustainable investor will keen interest to aggregate his/her judgments and transmit them to the firm, either as a financial reward or as a punishment. All in all, these results reveal that the firms disclosing sustainability information enjoy higher firm value, and this has prompted the Sri Lankan listed firms to deem disclosure of sustainability information as a value relevant practice. Curiously though, the present finding was contradictory with the finding of Cristomo et al. (2011), who reported a significant negative impact of CSR on firm value. The findings reported in relation to the control variable are also compatible with the findings of Kuzey and Uyar (2017), Lo and Sheu (2007) and Yu and Zhao (2015). According to Lo and Sheu (2007), the negative effect of LEV on firm value signals that there may be an active external control from debt holders (creditors) who monitor the corporate managers. Except for the effect of FSZ, the effects of the other three variables on SR were compatible with the findings of Jo and Harjoto (2011).

Limitations and Implications

As is common with many other studies, particularly those conducted in emerging and developing markets is that the results should be considered with caution. This is because the measure of SR variable represents only whether the particular firm discloses sustainability information or not, without providing an adequate insight into the quality of the reporting. Thus, the results reported in this study may not suffice to confirm the causality. However, this measurement issue is not a specific issue encountered by just this study. In fact, it is a common issue faced by many other international researchers as well. Moreover, the scope of the current study was limited only to the listed companies in Sri Lanka. This limits the generalizability of the study results to all companies (non-listed companies) in the country.

As for the implications of this study, the researchers believe that the knowledge gained from the findings will be useful to many parties including capital market participants, managers, regulators, social and environmental activists and academics. The capital market participants will use sustainability information to make their investment decisions while managers may use it to communicate their ethical behavior as exemplary citizens. Regulators can use sustainability in-

formation to ensure the integrity of managers' behavior, and if necessary they can consider enforcing the regulations to neutralize managers' self-interested behavior. Social and environmental activists can disseminate their views among the business community and convince them of the importance of engaging in environmentally and socially responsible activities by encouraging more disclosures. The academics too can make use of the findings of this study to broaden their contribution towards corporate disclosure literature.

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