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Corporate Social Responsibility (CSR) Disclosure and Investors' & Creditors' Required Return: Evidence from Indonesia

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***Abstract*—This study investigates the relation between corporate social responsibility (CSR) and the required rate of return (cost of capital), both cost of equity and cost of debt. Up to 690 observations of listed companies in Indonesia for the years 2013–2015 are studied using multiple regression analysis. The CSR disclosure score is measured using a percentage of the keyword coverage in a company's annual report with NVivo software. This study also uses a manual indexing procedure according to the GRI G4 list items to check its robustness. The results show that previous year's cost of equity and cost of debt motivate companies to disclose CSR extensively in the current year. After disclosing CSR more extensively, it is not proven that companies gain benefit in the form of lower cost of equity and cost of debt in the next year. Investors and creditors do not perceive CSR disclosure as a means of reducing asymmetric information or as an information risk. CSR disclosure per se may not be perceived as risk-reducing activities by investors and creditors, and thus, does not guarantee lower cost of capital.**

Keywords— cost of equity; cost of debt; Corporate social responsibility (CSR); disclosure

I. INTRODUCTION

Investors value companies that are involved in social and environmental activities, since they believe that these aspects lower their investment risk [1]. Those activities are classified under corporate social responsibility (CSR) disclosure in an annual report or standalone sustainability report. Indonesia, as an emerging country, has encouraged companies listed on the Indonesia Stock Exchange (IDX) to disclose their social and environmental activities. However, the requirements about what type of information should be disclosed are not clearly stated. This causes the level of CSR disclosure to vary among the companies. This variation in the disclosure level has attracted considerable research interest in determining the factors affecting the CSR disclosure level.

It is also debatable whether investors value CSR disclosure favorably. CSR can be seen as a management entrenchment toward a good management image or as a conflict resolution between shareholders [2]. It is interesting to know whether investors in Indonesia appreciate companies performing CSR by reducing their required rate of return. Following Dhaliwal et al. [3, 4] this paper integrates a study regarding equity cost as a determinant and as a consequence of CSR disclosure. This leads to the use of lag approach to capture the causal effect (using t - 1, t, and t + 1 time frames).

Considering the condition of the Indonesian bank-based financial system, it is also interesting to understand whether creditors or debt investors have a similar attitude toward the company's CSR disclosure. The mixed result in previous studies regarding the effect of CSR disclosure on the cost of debt has motivated researchers to ensure this relation. This is the first study that examines the costs of equity and debt as factors that motivate companies to disclose CSR and the consequences of CSR disclosure level in reducing the cost of equity and cost of debt, both in Indonesia and in a global setting.

This paper aims to examine the sequential effects of the cost of capital, both equity and debt, with CSR disclosure level. Four research questions are examined:

1. Does the previous year's cost of equity have a positive impact on the current year's CSR disclosure level?
2. Does this year's CSR disclosure level have a negative impact on the next year's cost of equity?
3. Does the previous year's cost of debt have a positive impact on the current year's CSR disclosure level?
4. Does this year's CSR disclosure level have a negative impact on the next year's cost of debt?

This research is analyzed using the capital needs theory and signaling theory. The capital needs theory is used in analyzing the impact of previous year's cost of capital on the current year's CSR disclosure level (determinant side). The signaling theory is used to analyze the impact of the current year's CSR disclosure on the next year's cost of capital (consequence side).

Samples used in this research include companies listed on IDX with some sampling criteria, as discussed in the research method below. Observation years range from 2013 to 2015. This empirical paper uses a secondary data source and the documentation method in collecting most of the data, except for the CSR disclosure score. Content analysis using a percentage of keyword coverage is conducted to arrive at a CSR disclosure score with Nvivo software. This method reduces subjectivity in content analysis through manual indexing and balanced panel data analysis with multiple regression analysis using STATA software.

In section II, we discuss the theory and previous literature as a basis for hypothesis development. The research methodology is discussed in section III, while results and

analysis are discussed in section IV. Conclusions, limitations, and suggestion for future work are presented in section V.

II. LITERATURE REVIEW

This section reviews the theories and previous studies used as a basis to develop the hypothesis and to answer the research question.

A. *Capital Needs Theory*

This theory explains that a company which needs external capital should disclose beyond mandatory requirement in order to obtain that capital (either equity or debt) at lower cost [5]. A more extensive disclosure reduces uncertainty from the investor's viewpoint, so it will, in turn, reduce the cost of acquiring new capital [5-7]. Increased disclosures provide benefits to companies in the form of reduced cost of capital due to increased transparency and reduced information asymmetry [8, 9]. A more extensive disclosure can reduce uncertainty and risk, and then, reduce the required rate of return (cost of capital) [6].

B. *Signaling Theory*

Signals are actions performed by senior management that will be difficult to imitate by middle management [10]. The signaling theory states that in asymmetric information situations, one party seeks to convey information about itself to another party [11]. Information on the company's social and environmental performance is asymmetric in nature because parties outside the company find it difficult to obtain credible information regarding this aspect. Companies then attempt to reduce this information asymmetry by proactively reporting their sustainability-related activities to signal outsiders [11]. A high-quality disclosure of social and environmental information reflects the company's greater social and environmental commitment.

C. *Hypothesis Development*

Previous research has proven an incentive to engage in a more extensive disclosure when firms have high cost of equity. Dhaliwal et al. [3] found that firms with a high cost of equity in the previous year (year t-1) have a higher probability to disclose a standalone sustainability report in the current year (year t). Frankel et al. [12] concluded that if a company increased its voluntary disclosure, it can obtain capital at lower costs. This indicates that companies with high equity costs have more incentive to increase their disclosure. A high level of previous year's cost of equity motivates companies to disclose CSR more extensively in the current year.

Hypothesis 1. Previous year's costs of equity have a positive impact on current year's CSR disclosure level.

High levels of disclosure will lower the company's operational costs [13-15]. Information transparency can mitigate adverse selection issues by reducing transaction costs [16, 17]. Dhaliwal et al. [3, 4], Gregory et al. [18], and El Ghoul et al. [19] showed that a higher CSR disclosure reduces the cost of capital. On the other hand, Humprey et al. [20] found no relation between CSR and capital costs, while Richardson and Welker [21] found a positive relation between social disclosure and cost of equity.

Hypothesis 2. Current year's CSR disclosure has a negative impact on next year's cost of equity.

The capital needs theory suggests that companies seeking to lower the cost of capital should disclose more than the required disclosure [5]. An extensive disclosure can reduce the information asymmetry, which can then reduce the cost of capital, including the cost of debt. Companies can increase voluntary disclosure to obtain capital at lower costs [12], including equity and debt.

Hypothesis 3. Previous year's cost of debt has a positive impact on this year's CSR disclosure level.

CSR disclosure can reduce information asymmetry [22], the company's risk information, idiosyncratic risk [23], increased transparency, and company value so it may reduce the costs debt. Previous studies that examine CSR disclosure and cost of debt have shown different results. Izzo and Magnanelli [24], Cooper and Uzun [25], Ge and Liu [26], and Xuan et al. [27] proved that CSR disclosure can reduce the cost of debt. An insignificant influence of CSR disclosure on cost of debt was found by Hajiha and Sarfaraz [28] in Tehran.

Hypothesis 4. This year's CSR disclosure levels have a negative impact on next year's cost of debt.

There is no significant effect of change in the current year's CSR disclosure on change in any future year's cost of debt.

III. RESEARCH METHODOLOGY

This empirical study examined up to 690 observations of listed companies in Indonesia for the years 2013 to 2015 by using multiple regression analysis. Disclosure levels were measured using content analysis by percentage of keyword coverage in an Annual Report with NVivo software. The keywords were adopted from Pencle & Malaescu [29] (http://www.catscanner.net/dictionaries.php). Using GRI G4, UN Global Compact, ESG, KLD, and IIRC dimensions, these word lists were also validated by experts [29]. A secondary data source was obtained from Bloomberg, Thomson Reuters Datastream, Indonesia Capital Market Electronic Library (ICaMEL), IDX website (idx.co.id), and the company's website.

$$CSR\ Disclosure\ level = \frac{number\ of\ keywords\ found}{total\ number\ of\ words\ in\ annual\ report}$$

This method reduces subjectivity that commonly arises in manual indexing procedures. Multi-dimensional keywords found by Pencle & Malaescu [29] also expand CSR disclosure scope (not only GRI) since GRI is not the only guideline.

To check the robustness of the result, this study used other content analysis techniques by indexing annual reports referring to the GRI G4 checklist. This method is commonly used in Indonesia because there is no publicly available data regarding the CSR disclosure level. This method is subjective in nature, but has deeper analysis of the context in the report, and not just words.

$$CSR\ Disclosure\ level = \frac{no\ of\ items\ disclosed}{no\ of\ items\ should\ be\ disclosed}$$

TABLE I. SAMPLING CRITERIA

Criteria	COE Model Determinant (H1)	COE Model Consequences (H2)	COD Model Determinant (H3)	COD Model Consequences (H4)
All firm years (2013-2015)	1526	1526	1526	1526
Finance Industry	(233)	(233)	(233)	(233)
Unbalanced panel firm	(150)	(150)	(150)	(150)
Negative equity	(63)	(63)	(63)	(63)
Year-end not Dec 31	(15)	(15)	(15)	(15)
Currency not IDR	(198)	(198)	(198)	(198)
There is no annual report	(60)	(60)	(60)	(60)
Incomplete data (dependent, independent, and control variable)	(117)	(225)	(201)	(246)
Total number of samples	**690**	**582**	**606**	**561**

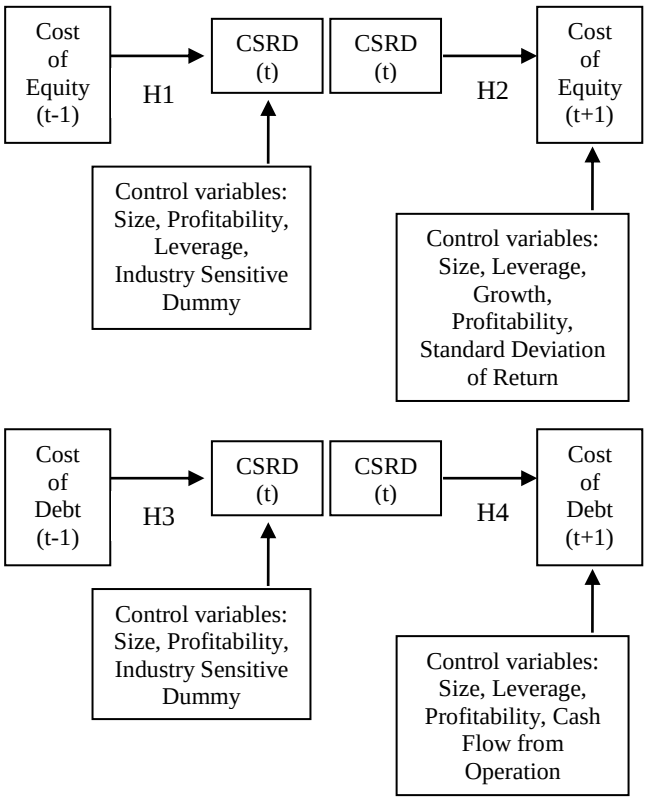

Fig. 1. Research Framework

Following Dhaliwal et al. [3, 4], this study used the lead-lag approach for analyzing the cost of equity and CSR disclosure model. We also studied the cost of debt and CSR disclosure model by using the same logic and approach. This research used secondary data and purposive sampling techniques with some of the criteria as shown in Table I. The following four models were analyzed: the effect of the previous year's cost of equity on the current year's CSR disclosure level, the effect of the current year's CSR disclosure level on the next year's cost of equity, the effect of the previous year's cost of debt on the current year's CSR disclosure level, and the effect of the current year's CSR disclosure level on the next year's cost of debt. The research framework is shown in Figure 1, while the research models are expressed in the following four equations. Table II shows variable definition and operationalization.

$$CSRD_{i,t} = \beta_0 + \beta_1 COE_{i,t-1} + \beta_2 SIZE_{i,t-1} + \beta_3 ROA_{i,t-1} + \beta_4 LEV_{i,t-1} + \beta_5 INDSEN_{i,t-1} + \varepsilon_{i,t} \quad (1)$$

$$\Delta\%COE_{i,t+1} = \beta_0 + \beta_1 \Delta CSRD_{i,t} + \beta_2 \Delta SIZE_{i,t} + \beta_3 \Delta LEV_{i,t} + \beta_4 \Delta GROWTH_{i,t} + \beta_5 \Delta ROA_{i,t} + \beta_6 \Delta STDRT_{i,t} + \varepsilon_{i,t} \quad (2)$$

$$CSRD_{i,t} = \beta_0 + \beta_1 COD_{i,t-1} + \beta_2 SIZE_{i,t-1} + \beta_3 ROA_{i,t-1} + \beta_4 INDSEN_{i,t-1} + \varepsilon_{i,t} \quad (3)$$

$$\Delta\%COD_{i,t+1} = \beta_0 + \beta_1 \Delta CSRD_{i,t} + \beta_2 \Delta SIZE_{i,t} + \beta_3 \Delta LEV_{i,t} + \beta_4 \Delta ROA_{i,t} + \beta_5 \Delta CFO_{i,t} + \varepsilon_{i,t} \quad (4)$$

TABLE II. VARIABLE DEFINITION AND OPERATIONALIZATION

Variables	Operationalization Definition
CSRD	CSR Disclosure score from content analysis using keyword coverage Nvivo and manual indexing (for robustness check)
COE	Cost of equity using CAPM model
COD	WACC cost of debt
SIZE	Natural logarithm of company's market capitalization
ROA	ROA is proxy for profitability (net income divided by average total asset)
GROWTH	Market value divided by book value of equity
LEV	Total debt divided by total asset
INDSEN	1 for firm in industry sensitive category (mining, oil and gas, chemical substance, forestry and paper, other metals, electricity, gas and water distribution), 0 otherwise.
CFO	Cash flow from operation divided by total asset
STDRT	Standard deviation of company's weekly stock return as proxy for risk

TABLE III. REGRESSION RESULT

Variable	H1 (Y=CSRDt) (a)	H2 (Y=ΔCOEt+1) (b)	H3 (Y=CSRDt) (c)	H4 (Y=ΔCODt+1) (d)
COEt-1	0.0212149**			
CODt-1			0.01894**	
SIZEt-1	0.0021905***		0.001257***	
ROAt-1	-0.009757**		-0.0092104***	
LEVt-1	-0.0033686**			
INDSENt-1	0.0027343***		-0.0004604	
ΔCSRDt		0.211785**		0.0867623
ΔSIZEt		-0.0006612		0.0070219***
ΔGROWTHt		0.0009513**		
ΔROAt		0.0063257		0.006143
ΔSTDRT		-0.0020552		
ΔLEVt				0.0315831***
ΔCFOt				0.0054781
n	690	582	606	561
R squared	23.51%	6.4%	19%	4.22%
F stat	0.0000	0.0000	0.0000	0.0014
*significant on α=10% ** significant on α=5% *** significant on α=1%(one tailed t-test)				

IV. RESULTS

The regression results are shown in Table III. Panel (a) (examine 1st hypothesis) shows that the coefficient of COEt-1 has a significantly positive affect on CSR Disclosure at 5%. Panel (b) (examine 2nd hypothesis) shows that the coefficient of CSRD is not statistically significant in affecting the next year's cost of equity. Panel (c) (examine 3rd hypothesis) shows that the coefficient of CODt-1 has significant positive effects on CSR disclosure at 5%. Panel (d) (examine 4th hypothesis) shows that there is no significant impact of change in CSR disclosure toward change in cost of debt.

Table IV shows the regression result using manual indexing and CSR disclosure score.

TABLE IV. REGRESSION RESULT USING MANUAL INDEXING AND CSR DISCLOSURE (AS ROBUSTNESS)

Variable	H1 (Y=CSRDt) (a)	H2 (Y=ΔCOEt+1) (b)	H3 (Y=CSRDt) (c)	H4 (Y=ΔCODt+1) (d)
COEt-1	0.062309*			
CODt-1			0.1197158*	
SIZEt-1	0.0038907*		0.0136827***	
ROAt-1	-0.0131074		-0.0308723	
LEVt-1	0.0172098			
INDSENt-1	0.0007508		0.0068825	
ΔCSRDt		-0.0156279**		-0.0043593
ΔSIZEt		-0.0007273		0.0069282***
ΔGROWTHt		0.0009295*		
ΔROAt		0.0077291		0.0067729
ΔSTDRT		-0.0742418***		
ΔLEVt				0.0311972***
ΔCFOt				0.0050606
n	690	582	606	561
R squared	15.22%	5.54%	9.52%	4.24%
F stat	0.0000	0.0000	0.0001	0.0016
*significant on α=10% ** significant on α=5% *** significant on α=1% (one tailed t-test)				

V. DISCUSSION

A. *Main analysis result (CSR disclosure using keyword coverage score)*

Impact of Previous Year's Cost of Equity on Current Year's CSR Disclosure Level

Examination of the 1st hypothesis (Table III panel (a)) shows that previous year's cost of equity motivates companies to disclose CSR more extensively in the current year. This is in accordance with 1st hypothesis and the study results obtained by Dhaliwal et al. [3, 4]. This also supports the capital needs theory, which states that companies should make additional disclosures to meet the capital needs as cheaply as possible. High cost of equity motivates companies to conduct extensive CSR disclosure in order to obtain access to capital at lower costs.

Impact of Current Year's CSR Disclosure Level on Next Year's Cost of Equity

Examination of the 2nd hypothesis (Table III panel (b)) shows the impact of increasing level of CSR disclosure on changes in cost of equity. The 2nd hypothesis predicts that increasing the level of CSR disclosure in the current year can reduce the cost of equity in the following year. However, Table IV shows that there is a positive significant effect of COEt-1 on CSRDt. Changes in CSR disclosure levels have a positive effect on changes in the cost of equity. This may be because investors do not rely completely on a company's CSR disclosure. They may perceive that CSR disclosure has a positive effect on the management of company earnings, and may perceive CSR disclosure as a tool to cover management discretion or other company problems, according to Martinez-Ferrero et al. [31].

Impact of Previous Year's Cost of Debt on Current Year's CSR Disclosure Level

Examination of the 3rd hypothesis (Table III panel (c)) shows that the previous year's cost of debt motivates companies to disclose CSR more extensively. This is in accordance with the 3rd hypothesis and capital needs theory, which states that a company should disclose more in order to gain capital at a lower cost.

Impact of Current Year's CSR Disclosure Level on Next Year's Cost of Debt

Examination of the 4th hypothesis (Table III panel (d)) shows that there is no significant effect of change in the current year's CSR disclosure on change in future year's cost of debt. This is not in accordance with the hypothesis and signaling theory, which states that CSR disclosure is a company's signal to inform that it has superior performance and is expected to reduce the cost of debt. The CSR disclosure level per se does not reduce the cost of debt. This may be because creditors do not fully rely on the company's CSR disclosure. It may be affected by a company's CSR performance. This needs CSR performance to be studied in more detail. This in accordance with Hajiha & Sarfaraz [28], who did not find any significant effect of CSR disclosure on cost of debt.

B. *Robustness test result*

Below are the results of the robustness test where CSR disclosures were measured using the GRI G4 checklist.

Impact of Previous Year's Cost of Equity on Current Year's CSR Disclosure Level

There is a positive but marginally significant effect of previous year's cost of equity on current year's CSR disclosure level. This result supports the 1st hypothesis, capital needs theory, and the results obtained by Dhaliwal et al. [3, 4]. Firms are motivated to disclose more in order to obtain lower cost of equity. This result is in accordance with those of previous models that use a percentage of keyword coverage as CSR disclosure measurement. However, the level of significance is lower (10%) compared to previous testing (CSR disclosure measured using percentage of keyword coverage).

Impact of Current Year's CSR Disclosure Level on Next Year's Cost of Equity

Changes in the current year's CSR disclosure negatively affect those in the future year's cost of equity. This result

supports the 2nd hypothesis, which states that the increasing level of CSR disclosure in the current year reduces the cost of equity in the following year. This result also supports the signaling theory and the results obtained by Dhaliwal et al. [4]. The result of this 2nd model is inconsistent if the CSR disclosure is measured using percentage of keyword coverage and the GRI G4 checklist.

Impact of Previous Year's Cost of Debt on Current Year's CSR Disclosure Level

There is a positive but marginal effect of the previous year's cost of debt on the current year's CSR disclosure level. This result supports the 3rd hypothesis and the capital needs theory. Previous year's cost of equity motivates the company to disclose more in order to gain capital at a lower cost. This result also supports the results obtained by Dhaliwal et al. [3, 4]. The significance level of COD in the 3rd model using manual indexing (at 10% level) is lower than that using percentage of keyword coverage (at 5% level).

Impact of Current Year's CSR Disclosure Level on Next Year's Cost of Debt

Changes in the current year's CSR disclosure do not significantly affect those in future year's cost of debt. CSR disclosure per se is not perceived as a risk-reducing activity by creditors, which is probably because creditors do not consider company's CSR disclosure level. This result is in accordance with those obtained by Goss & Roberts [30]. The regression result shows that creditors rarely consider the company's leverage. Companies with higher leverage will have higher default risks, which then increases creditors' required return.

VI. CONCLUSION

This study aims to investigate the sequential effect of CSR and cost of capital, both cost of equity and cost of debt. This study shows that previous year's cost of equity and cost of debt have motivated companies to disclose CSR extensively in the current year. However, it is not proven that companies will gain benefit in the form of lower cost of equity and cost of debt in the next year.

Consequently, the research problem stated in this paper is that the cost of equity and cost of debt are factors that affect CSR disclosure level. Investors and creditors do not perceive CSR disclosure as a means of reducing asymmetric information and information risk. CSR disclosure per se may not be perceived as a risk-reducing activity by investors and creditors, and hence, does not guarantee lower cost of capital.

Based on the two testing (using percentage of keyword coverage and GRI G4 checklist), the effect of CSR on cost of equity is inconclusive. The first testing shows that there is a positive significant effect of CSR disclosure on a company's cost of equity, which means that increasing the level of CSR disclosures is perceived by investors as an activity that reduces the risk so they require higher return. Investor may also perceive that CSR disclosure can be used as a tool to cover management discretion or other company's problem, according to Martinez-Ferrero et al. [31].

In the second testing, there is a negative significant effect of CSR disclosure on cost of equity, which means that increasing the level of CSR disclosure in the current year will reduce cost of equity in the following year. This result supports the hypothesis, signaling theory, and results obtained by Dhaliwal et al. [4].

There is no significant effect of CSR on the cost of debt. Creditors do not consider the company's CSR disclosure level. This result is in accordance with that obtained by Goss & Roberts [30]. Companies with higher leverage will have higher default risks, which can then increase the creditors' required return.

The empirical study regarding the impact of CSR performance will be studied in the future. This study provides a new insight into the cost of equity and cost of debt as determinants of CSR disclosure level, but not as a consequence of CSR disclosure. This research is useful for companies in their financial planning. Companies can consider quality of CSR performance, not only CSR disclosure level, as a means of gaining capital (both equity and debt) at a lower cost.

Upcoming researchers can explore this relation in other settings or use different measurements of CSR disclosure. Future study can consider the difference in companies' CSR performance, not only CSR disclosure, to ensure the relation between CSR and cost of capital, which has not been proven in this study. This study has limitations in terms of CSR measurement: it excludes information from websites and images that may provide additional information about the company's social and environmental activities, thereby affecting the results of hypothesis testing.

REFERENCES

[1] C. Reverte, "The impact of better corporate social responsibility disclosure on the cost of equity capital," CORP SOC RESP ENV MA, vol. 19, no. 5, pp. 253–272, 2011.

[2] H. Jo and M. Harjoto, "Corporate governance and firm value: The impact of corporate social responsibility," J. Bus. Ethics, vol. 103, pp. 351–383, 2011.

[3] D. S. Dhaliwal, O. Z. Li, A. Tsang, and Y. G. Yang, "Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting," Account. Rev., vol. 86, no. 1, pp. 59–100, 2011.

[4] D. S. Dhaliwal, O. Z. Li, A. Tsang, and Y. G. Yang, "Corporate social responsibility disclosure and the cost of equity capital: the roles of stakeholder orientation and financial transparency," J. Account. Public Policy, vol. 33, pp. 328–355, 2014.

[5] L. A. Alhtaybat, K. Hutaibat, and K. Al-Htaybat, "Mapping corporate disclosure theories," Journal of Financial Reporting & Accounting, vol. 10, no. 1, pp. 73–¬84, 2012.

[6] T. E. Cooke, "Voluntary disclosure by Swedish companies," J. Int. Financial Manag. Account., vol. 1, no. 2, pp. 1–25, 1989.

[7] O. H. Abd-Elsalam and P. Weetman, "Introducing international accounting standards to an emerging capital market: relative familiarity and language effect in Egypt," Journal of International Accounting, Auditing & Taxation, vol. 12, no. 1, pp. 63–84, 2003.

[8] C. A. Botosan, "Disclosure level and the cost of equity capital," Account. Rev., vol. 72, pp. 323–349, 1997.

[9] P. Schuster and V. O'Connell, "The trend toward voluntary corporate disclosure," Management Accounting Quarterly, vol. 7, no. 2, pp. 1–9, 2006.

[10] W. R. Scott, Financial Accounting Theory, 7th ed., New Jersey: Prentice Hall, 2014.

[11] R. Hahn and M. Kuhnen, "Determinants of sustainability reporting: a review of results, trends, theory, and opportunities in an expanding field of research," J Clean Prod, vol. 59, pp. 5–21, 2013.

[12] R. Frankel, M. McNichols, and G. P. Wilson, "Discretionary disclosure and external financing," Account. Rev., vol. 70, no. 1, pp. 135–150, 1995.

[13] C. Leuz and R. E. Verrechia, "The economic consequences of increased disclosure," J. Account. Res., vol. 38, pp. 91–124, 2000.

[14] D. Easley and M. O'Hara, "Information and the cost of capital," J. Finance, vol. 59, no. 4, pp. 1553–1583.

[15] R. Lambert, C. Leuz, and R. E. Verrecchia, "Accounting information, disclosure, and the cost of capital," J. Account. Res., vol. 45, pp. 385–420, 2007.

[16] R. E. Verrecchia, "Essays on disclosure," J. Account. Econ., vol. 32, pp. 97–180, 2001.

[17] J. R. Graham, C. R. "Harvey, and S. Rajgopal, The economic implications of corporate financial reporting," J. Account. Econ., vol. 40, pp. 3–73, 2005.

[18] A. Gregory, R. Tharyam, and J. Whittaker, "Corporate Social Responsibility and firm value: disaggregating the effects on cahs flow, risk, and growth," J. Bus. Ethics, vol. 124, pp. 633–657, 2014.

[19] S. E. El Ghoul, O. Guedhami, C. C. Y. Kwok, and D. R. Mishra, "Does corporate social responsibility affect the cost of capital?," J. Bank. Finance, vol. 35, no. 9, pp. 2388–2406, 2011.

[20] J. E. Humphrey, D. D. Lee, and Y. Shen, "Does it cost to be sustainable?," Journal of Corporate Finance, vol. 18, pp. 626–639, 2012.

[21] A. J. Richardson and M. Welker, "Social disclosure, financial disclosure and the cost of equity capital," Account. Organ. Soc., vol. 26, no. 7/8, pp. 597–616, 2001.

[22] A. C. Ng and Z. dan Rezaee, "Business sustainability performance and cost of equity capital," Journal of Corporate Finance, vol. 34, pp. 128–149, 2015.

[23] D. D. Lee and R. W. Faff, "Corporate sustainability performance and idiosyncratic risk: A global perspective," The Financial Review, vol. 44, no. 2, pp. 213–237, 2009.

[24] M. F. Izzo and B. S. Magnanelli, "Does It Pay or does Firm Pay? The Relation between CSR Performance and the Cost of Debt". Available at SSRN: https://ssrn.com/abstract=1986131

[25] E. W. Cooper and H. Uzun, "Corporate social responsibility and the cost of debt," Journal of Accounting and Finance, vol. 15, no. 8, 2015.

[26] W. Ge and M. Liu, "Corporate social responsibility and the cost of corporate bonds," J. Account. Public Policy, vol. 34, pp. 597–624, 2015.

[27] Z. Xuan, Z. Lieke, and S. Yuwei, "Environmental information disclosure of listed company study on the cost of debt capital empirical data: based on thermal power industry," Canadian Social Science, vol. 10, no. 6, pp. 88–94, 2014.

[28] Z. Hajiha and B. Sarfaraz, "Relationship between corporate social responsibility and cost of capital in listed companies in Tehran Stock Exchange," World Applied Science Journal, vol. 28, no. 11, pp. 1544–1554, 2013.

[29] N. Pencle and I. Malaescu, "What's in the words? Development and validation of a multidimensional dictionary for CSR and application using prospectuses," Journal of Emerging Technologies in Accounting, vol. 13, no. 2, pp. 109–127, 2016.

[30] A. Goss and G. S. Roberts, "The impact of corporate social responsibility on the cost of bank loans," J. Bank. Finance, vol. 35, no. 7, 2011.

[31] J. Martínez-Ferrero, S. Banerjee and I. Sánchez, "Corporate Social Responsibility as a Strategic Shield Against Costs of Earnings Management Practices," J. Bus. Ethics, vol. 133, no. 2, pp. 305-324, 2016.