

## **Causal Relationship Model of Disclosure of CSR Information Affecting the Cost of Capital of Listed Companies in the Stock Exchange of Thailand**

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### **Abstract**

The objective of this study was to investigate the causal relationship model of disclosure of corporate social responsibility information affecting the cost of capital of listed companies in the Stock Exchange of Thailand. This study focused on exploring CSR information disclosure through disclosure of environmental, economic and social information meanwhile studying the cost of capital through the cost of debt measured by interest rates on investment loans and cost of equity and valued with the expected return of the investor. The results of this study indicated that companies with greater environmental information disclosure had higher cost of debt. However, when they disclosed greater economic and social information, their cost of debt would be lower. More disclosure of environmental and social information would lower cost of equity. This implied that companies with more disclosure of environmental information are more likely to obtain higher interest rates

on investment loans. If companies disclosed economic and social information, they tend to obtain lower interest rate on investment loan than normal rate. Companies disclosing environmental and social information could reduce the pressure from the expectation of investors.

**Keywords:** Corporate Social Responsibility Disclosure, Cost of Capital, Causal Relationship

## Introduction

Disclosure of corporate social responsibility is something more than conducting business according to its normal principles. It is consistent with the definition of corporate social responsibility given by McWilliams and Segal (2001) that “corporate social responsibility consists of actions that appear to further some social good beyond the interest of the firm and that which is required by laws.” A study by Faleye et al., (2006) showed effects on stakeholders towards social responsibility behaviors of firms in the U.S that companies give importance to labor welfare do not commonly expect maximum profit but sustainability. Importance given to social responsibility and disclosure of information reflect on related persons to realize as a group of stakeholders. Previous studies found that companies pay attention to sustainability and social responsibility had chances to achieve good operation performance in all dimensions including financial performance in case those companies made efforts to respond to demands of all stakeholders and stakeholders would reciprocate in a form of supporting and assisting, e. g. employees had loyalty, third parties provided more support, chances for be considered from financial institutes for loan application will be increased and a rise in operation performance (Bansal, 2005). Companies with social responsibility tend to less likely create negative events in terms of environmental, social, and corporate governance aspect in their business plans. Besides, corporate social responsibility can help reduce financial risks that companies do not expect or beyond the plans that companies estimated (Buysse and Verbeke, 2003). For shareholders view and stakeholders view, it can be considered that investing in social responsibility can add value to business (Jensen and Meckling, 1976).

Companies with good performance or high profitability enable stakeholders to give interest in those business (Phoprachak et al., 2018 and Phoprachak, 2018), Mallikarjunnappa and Carmelita (2007), showing that companies have high liquidity and current assets such as stock of merchandises, cash, debtors, note receivable. Once they require an amount of capital for their businesses, they will take those assets to find an amount of capital instead of applying for loans from outside. With regard to debt financing, companies have to bear the burden by paying the interest and principal when it is due. Long-term financing sources are sources of finance that companies differently have long-term obligation to owners of fund. Lack of fund to develop what is existing is probably the cause of inefficient existing resources use (Balkaoui and Karpik, 1989, Ahmad et al., 2003, Haron et al., 2007). The study in the past found that cost of capital had negative influence on disclosure of corporate social responsibility. Balkaoui and Karpik (1989) said that there was a tendency that managers in companies reliant on high levels of debt would employ accounting practice to lower the company's debt levels to a required level to meet the conditions of creditors and increase profit of the current year by reducing the costs triggered by implementing corporate social responsibility activities. The study on influence between corporate social responsibility and cost of debt conducted by Goss and Roberts, (2009) found that corporate social responsibility still had influence on cost of debt as well. Therefore, an in-

depths study on cost of capital in paying off debt to bank was conducted. It was found that companies with the lowest corporate social responsibility scores could pay off a larger amount of debt to banks than those with the highest corporate social responsibility scores at 20 points. A study conducted by Malkiel (1991) found that the return on investment from port could not allow companies to conduct business in South Africa because of the higher cost of debt as companies chose not to publish a report on corporate social responsibility. Margolis and Walsh (2001) and Orlitzky et al. (2003) conducted a study and study results were various. Considerable numbers of researcher conducted studies and found positive influence (Orlitzky, et al. (2003) and negative influence (Wright and Ferris, 1997) between corporate social responsibility and financial performance and cost of capital.

Based on previous literature reviews, it can be seen that none of study conducted on a point associated with debt which seems to be surprising, considering the size of debt market and capital market. However, a study on ownership in the context of Thailand is not much widely and considered interesting. Therefore, the researcher is interested in studying causal relationship of disclosure of corporate social responsibility having influence on cost of capital of companies listed on the Stock Exchange of Thailand so as to be a guideline for business operators in Thailand who wish to publish a report on corporate social responsibility to be used as a primary source of information for considering investment of investors or for financial institutions to consider loan offer.

## **Research Objective**

The objective of this study was to investigate the causal relationship model of disclosure of corporate social responsibility information affecting the cost of capital of listed companies in the Stock Exchange of Thailand.

## **Literature Review**

Based upon this study the researcher would like to study influence of causal factors affecting corporate social responsibility disclosure such as total asset value according to the guideline introduced by Zoysa and Wijewardena (2003), profitability, corporate liquidity, and ownership structure according to the guideline developed by Mallikarjunnappa and Carmelita (2007) and analyze influence of corporate social responsibility disclosure affecting market price to accounting value, total debt to total assets ratio, cost of debt, and cost of equity. The analysis of market price to book value data was carried out with the guideline of Goss and Roberts, (2011) and total debt to total assets ratio according to the guideline developed by Ming Long et al. (2013), debt according to the guideline developed by Eccles et al.(2011) and Andreas et al. (2014) and cost of equity according to the guideline developed by Dhaliwal et al. (2011) and Shih-Wei and Fengyi (2014). Global Reporting Initiative guidelines to corporate social responsibility disclosure (2011) GRI Reporting Initiative is a standard practice for international reporting which is a voluntary standard used globally.

## **Methodology**

The researcher analyzed the data through multivariate statistics using path analysis. The researcher collected data on the mechanism of disclosure of corporate social responsibility information and cost of capital by investigating and gathering data from annual reports (Form 56-1) and annual financial statements of listed

companies in the Stock Exchange of Thailand in the fiscal year 2016. Besides, the researcher recorded the corporate social responsibility disclosure statistics by collecting CSR disclosure statistics according to Global Reporting Initiative (GRI, 2011). CSR disclosure data were investigated through annual report (Form 56-1), annual financial statements, notes to financial statements, corporate social responsibility reports of listed companies in the Stock Exchange of Thailand in the fiscal year 2015. The validation criteria were as follows: Companies with CSR disclosure shall get 1 point when they mentioned 1 CSR disclosure item.

Companies without CSR disclosure shall get 0 point if they didn't mention CSR disclosure item.

The population of this study was 220 listed companies in the Stock Exchange of Thailand under seven industry groups, except the financial industry group (as of 31 December 2016, the Stock Exchange of Thailand, 2016)

Note: Companies with CSR disclosure shall get N / A (Not Applicable) if such data is not related to the company. Those companies shall not be included in this study because their data did not meet the research objective.

## Results

To present the results of this study, variable abbreviation and indicators were determined by the researcher for common understandings and interpretation as shown in Table 1.

**Table 1** Variable Abbreviation and indicators

Variable Name	Abbreviation	Indicators
Environmental	ENV	No. of sentences
Economic	ECO	No. of sentences
Social	SOC	No. of sentences
Cost of Debt	COD	Ratio of interest to total debt
Cost of Equity	COE	Capital Asset Pricing Model

The results of analyzing the model indicated that the model had high errors because data had unmodified nature. Thus, the model had no goodness of fit. The researcher modified the model to increase the consistency between the model and empirical data according to the conceptual framework as shown in Table 2.

According to Table 2, the analytic results indicated that the modified model was consistent with the empirical data after adjusting the model 10 times. After model adjustment, the model was consistent with the empirical data. The alignment of models could be considered as the following statistics: Chi-square statistics ( $\chi^2$ ) at 19.81, degrees of freedom (df) at 13, p-value at 0.10, which must be higher than 0.05, relative chi-square statistics ( $\chi^2/df$ ) at 1.52, which must be less than 2. In addition, Goodness-of-Fit Index (GFI) was 0.99, which was higher than 0.9, AGFI was 0.94, which must be higher than 0.9, RMSEA was 0.04, which was less than 0.05. It could be concluded that the model had goodness of fit.

**Table 2** Path Coefficients, Standard Errors, and t-values after model adjustment

Path Diagram	Path Coefficients	Standard Errors	t-values
<b>BETA</b>			
ENV → COD	1.46*	0.05	2.12
ECO → COD	-0.25**	0.01	4.38
SOC → COD	-2.17**	0.01	2.73
ENV → COE	-0.12*	0.00	2.12
ECO → COE	-0.08	0.01	0.96
SOC → COE	-0.10*	0.00	2.46

**Note:** Path Diagram refers to diagram of path analysis, Path Coefficients refer to coefficients from path analysis

\*, \*\* refers to statistical significance level of .05 ( $1.960 \leq t\text{-value} < 2.576$ ), .01 ( $t\text{-value} \geq 2.576$ )

In conclusion, the results indicated that corporate social responsibility environmental disclosure (ENV) had a direct positive influence on cost of debt (COD) with a coefficient of influence of 1.46 and had a direct negative influence on cost of equity (COE) with a coefficient of influence of -0.12 with a statistical significance level of .05. Corporate social responsibility economic disclosure (ECO) had a direct negative influence on cost of capital (COD) with a coefficient of influence of -0.25 with a statistical significance level of .01 and had no significant influence on cost of equity (COE). While social disclosure (SOC) had a direct negative influence on cost of debt (COD) with a coefficient of influence of -2.17 with a statistical significance level of .01, and cost of equity (COE) with a coefficient of influence of -0.10, respectively with a statistical significance .05.

## Discussion

With regard to cost of debt, it is found that corporate social responsibility environmental disclosure (ENV) will lead to a rise in cost of debt. Namely, cost of borrowing increases. The study in 2013 by Magali, Delas and Nicholas found that total asset value had positive influence on disclosure of environmental information and cost of capital. In 2016, the study of Beiting, Ioannis and George found that companies with high evaluation on corporate social responsibility could increase ability to better access sources of finance and had low cost of debt or it can be said that corporate social responsibility disclosure can help increase opportunities in receiving low interest rates from sources of finance and corporate social responsibility disclosure on society (SOC) has negative influence on cost of capital significantly. It is consistent with study results in the past that revealed that the more companies were engaged in corporate social responsibility disclosure, the lower their cost of debt became. It can be said that companies shall have opportunities to receive loans at reduced interest rate from financial institutions or consideration of lower loan interest rates than normal rates. It is consistent with the study conducted by Benabou and Tirole (2010) that indicated that a high level of corporate social responsibility disclosure could help companies to reduce restriction on cost of debt capital. The study result was reconfirmed in 2012 as the study conducted by Eccles, Ioannou and Serafeim found that companies with high levels of corporate social responsibility reporting behavior, their cost of debt would

decrease and could receive consideration of paying off low levels of interest from sources of finance. It is consistent with the study result of Andreas, Ioannis, Bert and Michael (2014), in terms of cost of equity, corporate social responsibility disclosure from companies in different sizes did not have effect on cost of equity. Namely, the size of companies did not affect cost of equity when companies disclosed corporate social responsibility information. It can be said that corporate social responsibility disclosure cannot add interests to investment in companies for investors. This study result is consistent with the study result in Japan considered an interesting country of this continent. Similar study results in the past, the finding showed that corporate social responsibility disclosure based on GRI disclosure level in Japan did not have influence on cost of equity during the beginning stage of implementing corporate social responsibility activities (Tanimoto and Suzuki, 2005). However, 4 years later, it was found that once Japanese executives had more understanding, gave importance to and accepted the concept of social responsibility, corporate social responsibility reporting started to have direct negative influence on cost of capital with a low level (Fukukawa and Teramoto, 2009). This study under the context of Thailand gave results in harmony with the study results obtained at the initial stage of corporate social responsibility in Japan. Meanwhile, disclosure of corporate social responsibility on economy (ECO) did not have influence on cost of capital, which the study results in Japan at the initial stage of implementing corporate social responsibility activities revealed the same direction (Tanimoto and Suzuki, 2005).

## **Suggestions**

When companies disclose more corporate social responsibility information on environment, there is a tendency that the companies shall receive higher consideration of loan interest rates for investment. If companies give more importance to disclosure of corporate social responsibility on economy and society, there is a tendency that the companies shall receive consideration of lower loan interest rates for investment than the normal rates, and when companies disclose more corporate social responsibility information on environment and society, the companies shall reduce pressure from investors' expectations. For future research, researchers should conduct an additional study on a scale of corporate social responsibility disclosure, characteristics of corporate social responsibility activities. Further study should be conducted on perception of investors or financial institutions towards when companies are interesting for investment after corporate social responsibility disclosure, whether or not companies will gain more attention for more investment or companies will have more opportunities for consideration of reduction in loan interest rates for investment as a special case than companies that do not give importance to corporate social responsibility disclosure. Further research can be additionally conducted by employing this conceptual framework and a study should be conducted by industry group classification to penetrate study results and confirm study research results so that each industry can use as a management instrument to create business competitive advantage.

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