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The Effect of Institutional Ownership and Voluntary Disclosure on Cost of Debt

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Abstract: We examine the effect of institutional ownership and voluntary disclosure on cost of debt for the population of manufacturing companies listed in the Indonesia Stock Exchange (IDX) from 2006-2010. Voluntary disclosure is measured using the 32 criteria established by researchers below. The sample of 34 companies is selected from the population using a purposive sampling method. This study uses secondary data from the IDX Capital Market Reference Center in the form of annual financial reports from 2006-2010. Statistical testing is by using multiple regression analysis. This study uses firm size as a control variable. Our results show that institutional ownership and voluntary disclosure have a negative significant effect on cost of debt that is they reduce the cost of debt. Meanwhile, the size of a firm does not affect the cost of debt.

Key words: Institutional ownership, voluntary disclosure, cost of debt, control variable, ownership, reduce

INTRODUCTION

To acquire finance from outside sources (borrowing money or debt) and from inside (raising capital by issuing shares or equity) creates costs that the company must bear (Derrien *et al*., 2016). The cost of interest for example is known as cost of debt while the cost of share capital is known as cost of equity (Derrien *et al*., 2016). Scholars describes the cost of debt is as the level that must be received from investment to achieve the yield rate needed by a creditor or in other words, the yield rate needed by a creditor when supplying finance to a company (Fabozzi *et al*., 2007a, b). The cost of debt includes the interest rate that must be paid by company when taking out a loan (Chen and King, 2014). According to Chen and King (2014), the cost of debt is the interest rate before tax that must be paid bythe cost of debt is the interest rate before tax that must be paid by the company to get the loan.

In practice, this agency cost-especially the cost of debt-can be minimized. One way is by including in the company that is financed an element of corporate governance as institutional ownership (Janra, 2015). Regarding this institutional ownership as corporate governance, studies from Crutchley *et al*. (1999), Bhojraj and Sengupta (2003), Roberts and Yuan (2010) and Elyasiani *et al*. (2010) as well as the Piot and Missioner-Pierra, all find that institutional ownership lowers cost of debt has negative correlation with bond yield and quite significantly decreases the cost of equity.

Janra (2015) argues that wider share ownership by the public, especially by institutional investors such as pension funds and mutual funds, pushes a company to expand disclosure. In general, institutional lenders and investors financiers have higher disclosure standards. Institutional financiers push for improved supervision from outside. Moreover, at this moment, institutional stakeholders in companies listed on IDX are quite significant and this is not true of small investors, so the institutions affect corporate policies and promote effective supervision (Hadianto, 2010). With the increase of supervision, financiers believe, corporate performance will be better and so finance is available at lower cost.

Another way to minimize agency cost, especially cost of debt is by applying the principle of voluntary disclosure optimally. If disclosure is related to signalling theory and maximization of corporate value then when there is information asymmetry a manager can send a signal by voluntary and pre-emptive disclosure of relevant information to stakeholders. A study on the role of disclosure and its effect on agency cost (cost of debt and cost of capital) by Mardiyah using Botosan and Plumlee (2000)'s disclosure index proves that the higher level disclosure, lower cost of capital. Sengupta (1998) says that the broadness of disclosure the cost of debt because it reflects (in reverse) the risk of debt payment failure. Therefore, the disclosure (especially voluntary disclosure) is a reassurance for financiers.

This study follows by Elyasiani *et al*. (2010) adding one independent variable which is voluntary disclosure. That addition Sengupta (1998) and Mardiyah who find a negative effect of voluntary disclosure on the cost of debt. It means that a company that discloses its information more transparently will benefit from low loan interest and that less transparent companies are considered more the risky (Nikolaev and Lent, 2005).

We analyze manufacturing companies in Indonesia recently hit hard by economic pressures (Lau and Sholihin, 2005). The economic pressures force companies to borrow from external parties and pay the cost of debt. We also test again the effects of voluntary disclosure on institutional purchase of equity and on the cost of equity. Therefore, this study is titled "The Effect of Institutional Ownership and Voluntary Disclosure on Cost of Debt". We, study only manufacturing companies listed on the Jakarta Stock Exchange (JSX till 2007) now the IDX. Listed companies are bigger and more advanced and therefore, offer more durable scholarship (Yuliansyah *et al*., 2017; Yuliansyah and Khan, 2015; Yuliansyah *et al*., 2016).

Literature review

Previous studies: Bhojraj and Sengupta (2003) look at institutional ownership and the effect of external directors on bond yield at bond issuer companies in the USA. They find that bigger institutional ownership proportion and stronger external control lets lenders accept a lower yield and gives borrowers a better rating. Robert and Yuan (2010) survey the effect of institutional ownership (as one important component of corporate governance) on the cost of debt for companies listed in the Syndicated Loan Database, again in the USA. They find strong evidence that institutional ownership reduces the cost of debt by making external parties monitor management more strictly so that the management is pushed to improve company performance. The improvement lessens the risk of company failure so creditors ask for lower returns.

Piot and Missioner-Piera investigate the effect of independent directors, remuneration committees and institutional ownership on the cost of debt for companies listed in the SBF 120 Index of France. The resultant decrease in cost is calculated from the interest rates paid by the companies. Juniarti and Sentosa (2010) consider the effect of good corporate governance and voluntary disclosure on the IDX manufacturing companies. Good corporate governance is the proxied by the managerial ownership, institutional ownership, independent commissioners and audit quality. The result is that only the 2nd and 4th proxies-institutional ownership and audit quality-lower the cost of debt.

Elyasiani *et al*. (2010) measure the effect of institutional ownership on cost of debt for companies listed in the Lehman Brothers Bond Database (LBBD) of the USA. They point out the important role of institutional owners who are in a good position to learn the condition of a company and they also enjoy economies of scale.

Thus, when the attention given by institutional owners leads to a better reputation in the debt market a company will pay less for debt.

Study of variable voluntary disclosure and cost of debt: Sengupta (1998) links disclosure quality with the cost of debt in annual reports of companies in FAF (Financial Analysts Federation). Sengupta (1998) shows that the level of disclosure affects the cost of debt. The more that information disclosure can be trusted, the more confident investor parties are in determining investment decisions, especially about the risk that will be taken. Punctual, comprehensive and clear disclosure indicates a low failure risk, justifying the lower interest expense. Mardiyah studies the effect of voluntary disclosure on information asymmetry and on the cost of raising capital by issuing shares. A high level of voluntary disclosure lowers the level of asymmetry so the cost of equity eventually will be lower. Eng and Mak (2003) analyses the level of voluntary disclosure in annual reports on the Stock Exchange of Singapore. There is a relation between disclosure in annual reports and the cost of debt. The lower debt, more complete the disclosure.

Hypothesis

Effect of institutional ownership on cost of debt: Crutchley *et al.* (1999) state that institutional ownership can reduce cost of debt. Moreover, Roberts and Yuan (2010) and Piot and Missioner-Pierra strongly agree as do Bhojraj and Sengupta (2003) who find that bigger institutional ownership proportion and stronger external control make lower yields acceptable and lead to better rating. Elyasiani *et al.* (2010) reveal the important strong negative relation between cost of debt and institutional ownership stability. That stability plays a role in the determination of the cost of debt and its effect is more felt in companies that have heavier information asymmetry as well as bigger costs of deb and equity. Our H_1 is:

- H_1 : institutional ownership negatively affects cost of debt

Effect of voluntary disclosure on cost of debt: Sengupta (1998) links information asymmetry to higher interest payment and on the contrary, companies with qualified disclosure are less burdened with a lower risk premium. Disclosure broadness in other words, negatively affects cost of debt. Mardiyah subsequently found that a high level of voluntary disclosure lowers the level of asymmetry so eventually lowering the cost of equity. Based on the studies above our H_2 is:

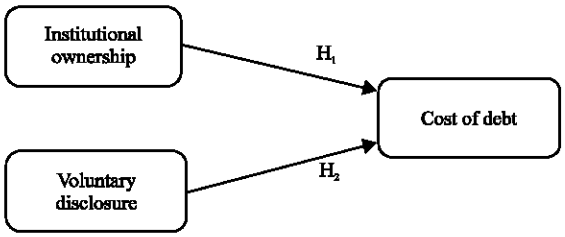

Fig. 1: Research framework

- H_2: voluntary disclosure negatively affects cost of debt

Based on the above, the research framework can be seen in Fig. 1.

MATERIALS AND METHODS

Population and sample: The population in this study is all those manufacturing companies listed in JSE (now IDX) between 2006 and 2010. The reason why this study chooses manufacturing companies is because the growth of manufacturing in that period is in relative decline that is below the common measure of economic growth (Lau and Sholihin, 2005). In addition, public listed firms are 'attract the interests of many investors' due to 'their high volume of trade's (Ghania *et al*., 2016). In 2006, Indonesia economic growth was 5.5% but the manufacturing sector was able to grow only 4.6%. The relative decline of manufacturing triggers the possibility of company management seeking finance from outside that is new debt (or equity) with associated costs. Not all members of this population can be studied so sampling is needed.

Sampling technique: Purposive sampling a sample taken from an available population based on certain criteria in accordance with the aim of the study (Kothari, 2004) meets these criteria:

- Manufacturing companies listed in IDX from 2006-2010
- Companies that publish a financial report and annual report every year between 2006 and 2010
- Companies that pay interest on debt in the period 2006-2010
- Companies that do not have negative equity value

Type and source of data: The of data used in this study are secondary data which are obtained from a source other than the party that is the sample of a study. Our data source is the financial reports and annual reports data listed in IDX for the period. Data are obtained through the site www.idx.co.id.

Operationalization of variable

Institutional ownership (X_1): Institutional ownership is that percentage of shares in a company owned by the institutional investors such as governments, investment company, banks or insurance companies (Juniarti and Sentosa, 2010). The calculation of institutional ownership in this study follows by Bhojraj and Sengupta (2003), Robert and Yuan (2010), Piot and Missioner-Piera, Juniarti and Sentosa (2010) and Elyasiani *et al*. (2010), we calculate the number of shares owned by institutions, divided by the number of total shares.

Voluntary disclosure (X_2): Botosan and Plumlee (2000) divide the criteria of voluntary disclosure into a number of items used to calculate an index of disclosure from an annual report. Those criteria disclose information additional to what is required for financial reports. The criteria of voluntary disclosure (above) are adjusted to meet regulations applying in Indonesia; the criteria do not include mandatory disclosure listed in PSAK and Bapepam and voluntary disclosures in this study are in accordance with (Sengupta, 1998). Those criteria will be adjusted to the condition of the research sample so the criteria of voluntary disclosure become 32 in number (Juniarti and Sentosa, 2010).

Cost of debt (N): Cost of debt covers the interest rate that must be paid by a company when taking a loan. The calculation of cost of debt in this study is in accordance with Roberts and Yuan (2010), Piot and Missioner-Pierr all of whom specify one year's interest cost divided by the average interest bearing debt in the same year.

Controlling variable: The controlling variable in this study is the size of the firm. Firm size in this study is measured by the total assets owned by the company at the end of the year (Sentosa, 2010).

RESULTS

Descriptive statistics of research variable: The result of purposive sample selection is as Table 1.

Classic assumption test: The classic assumption test is done by testing normality, multicolinearity, heteroscedasticity and autocorrelation with these assumptions (determined by the previous study).

Table 1: Selection of company sample

Information	No. of companies (ineligible)
Manufacturing companies listed in IDX in 2006-2010	121
Companies that do not publish financial report and annual	(54)
Report in 2006-2010 completely companies that do not have interest expense in 2006-2010	(28)
Companies that have negative book value equity	(5)
Total sample used in the study	34

The normality test shows that the regression model accurately predicts the cost of debt from the input of variable institutional ownership and voluntary disclosure because the data have been normally distributed.

The multicolinearity test shows that all independent variables and controlling variables in this study are free from multicolinearity because they have a VIF value smaller than 10.

The heteroscedasticity test finds that the parameter coefficients for the independent variables and the controlling variables are not significant, so it can be concluded that there is no heteroscedasticity in this regression model; and the autocorrelation test done by calculating the Durbin Waston test value of 1.286, in the range of (-2 to 2), shows that in this study there is no autocorrelation. Therefore, a classic assumption test by using the four indicators is feasible.

Hypothesis testing

Multiple regression analysis: To investigate the effect of institutional ownership and voluntary disclosure on cost of debt, we use multiple regression analysis (Table 2). Based on the testing result of regression in Eq. 1 holds:

$$Y = 0.196-0.074KINS-0.071VDIS-6.84E-0.12FSIZ+e \quad (1)$$

From the calculation result, it can be defined that variable of cost of debt (Y) will be reduced 1 point if variable of institutional ownership (X_1) decreases 0.074 point, voluntary disclosure (X_2) decreases 0.071 and controlling variable of total assets (X_3) decreases 6.84E-012 point.

Simultaneous significance test (F): The F-test reveals whether all independent variables in the model have simultaneous effect on the dependent variable (Table 3).

From the F count of 2.855 with probability of 0.040, it can be said that institutional ownership, voluntary disclosure and firm size simultaneously affect cost of debt because the probability is smaller than 0.05.

Table 2: Multipe regression analysis

	Coefficient[a]		Coefficient[a]		
Modes	Unstandardize (B)	SE	Standardize (β)	t-tests	Sig.
Constant	-0.196	0.035	-	5.576	0.000
KINS	-0.074	0.029	-0.241	-2.498	0.014
VDIS	-0.071	0.033	-0.214	-2.176	0.032
FSIZ	6.84E-012	0.000	0.001	0.012	0.990

[a]Dependent variable: COD

Table 3: F-test

	ANOVA[b]				
Models	Sum of squares	df	Mean square	F-value	Sig.
Regression	0.019	3	0.006	2.855	0.040[a]
Residual	0.247	111	0.002	-	-
Total	0.266	114	-	-	-

Table 4: Determination coefficient test

	Model summary[b]			
Medel	R	R^2	Adjusted R^2	SE of the estimate
1	0.268[a]	0.072	0.047	0.04720

[a]Predictors: constant, KINS, VDIS, FSIZ; [b]dependent variable: COD

Determination coefficient test (R^2): The determination coefficient test is the test used to investigate the percentage magnitude of the effect of the independent variable on the dependent variable. The result of the test appears in Table 4.

The value of adjusted R^2 is 0.047 meaning that 4.7% of the variation in the cost of debt is explained by institutional ownership and voluntary disclosure. The other 95.3% (100-4.7%) is explained by factors outside the study.

Individual parameter significance test (t-test): The t-test aims to show how far the independent variable on its own affects the dependent variable. Based on Table 2, it is known that institutional ownership and voluntary disclosure have significance levels of 0.014 and 0.032<0.05 showing that H_1 and H_2 are accepted which means that institutional ownership and voluntary disclosure negatively and significantly affect the cost of debt. Meanwhile, the controlling variable which is total assets has a significance level of 0.99>0.05 showing that affects the cost of debt.

DISCUSSION

That institutional ownership negatively and significantly affects cost of debt (this study's result) is in accordance with Bhojraj and Sengupta (2003), Robert and Yuan (2010), Piot and Missioner-Piera, Juniarti and Sentosa (2010) and Elyasiani *et al.* (2010). It shows that the presence of institutional ownership gives effect to monitoring done on management. The bigger the share

ownership by institutional parties, the more effective the control of management. Bushee (1998) states that institutions are sophisticated investors (smart investors) whose role in supervision reduces management behaviour that can cause information asymmetry. The lower the level of information asymmetry in a company, the fewer the risks for the investor. Therefore, creditors view the company's risk as low and that reduces both the return that is asked by creditors and the cost of debt to the company.

Furthermore, in accordance with the support for H_2, voluntary disclosure negatively and significantly affects the cost of debt in accordance with Sengupta (1998), Mardiyah. The sample shows a relatively high average of company voluntary disclosure. Signalling theory holds that a company with high performance uses information in its financial report and annual report to send signals to the market (Spence, 1973; Suhardjanto and Wardhani, 2010). Voluntary disclosure signals corporate value in the future where the company that discloses its information more transparently benefits from the low cost of loan interest.The company that is less transparent is viewed as more risky (Chen and Jian, 2006; Nikolaev and Lent, 2005).

Meanwhile, for the controlling variable in this study (firm size) there is no significant effect on cost of debt in line with Juniarti and Santosa (2010). It shows that a big firm does not always guarantee to creditors a return on the loan they have given because any company, small or large, can manipulate its financial report to avoid high tax. Creditors pay less attention to firm size in determining cost of debt.

CONCLUSION

The aim of the study is to examine the effect of institutional ownership and voluntary disclosure in cost of debt. In order to achieve the goal of the study, we do a study in the Indonesian Stock Exchange in particularly manufacturing companies as the most advanced companies in Indonesia are listed in the Indonesian Stock Exchange. According to, purposive sampling method, total samples used in the study are 34 companies. Using multiple regression analysis to test Hypothesis, we reveal the significant negative effect of institutional ownership on cost of debt and prove that voluntary disclosure negatively affects cost of debt. Firm size has no significant effect on cost of debt. We suggest that since only 4.7% of the variation of cost of debt can be explained by institutional ownership and voluntary disclosure, the next study should examine other independent variables. In addition, The sample of this study uses only manufacturing companies. Therefore, we suggest expanding the sample to give a more generalized insight.

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