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Accounting Information Quality, Board Narrative Disclosure, and the Cost of Debt

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Abstract*—Company information disclosed in a financial statement is used as a reference by investors to assess corporate risk and investment-related decision-making. The higher the risk is, the higher the cost of debt (COD) demanded by an investor. This study investigates the influence of accounting information quality and the characteristics of the board of directors manifested in the report of the board of directors, which is a narrative report drafted by the board of directors, in the company's annual report on COD. The sample used is 106 nonfinancial companies listed on the Indonesia Stock Exchange between 2014 and 2015. The method used is a mixed method in terms of data collection. Quantitative data from annual reports and qualitative data from the report of the board of directors were analyzed by quantitative content analysis. The results of this study reveal that the quality of accounting information as measured by the earnings income has a significant negative effect on COD; however, if it is measured by earnings, predictability does not affect COD. In addition, the report of the board of directors has a significant positive effect on COD. These results indicate that COD is influenced by both accounting information in the financial statement and also by nonaccounting factors, i.e., characteristics of the board of directors, which is reflected in the report of the board of directors in the annual report.

***Keywords*—accounting information quality, board narrative disclosure, cost of debt, mixed method**

I. INTRODUCTION

The quality of accounting information affects investors' perceptions and decisions. High quality of accounting information released encourages investors to maximize their investment in the company [1]. Information is the cause of the risk so a credible financial statement is required. This can be inferred from the quality of earnings reported by the company [2]. The company's profit is a major concern because it can be used as a measure to assess corporate risk [3]. The quality of accounting information combined with the quality of earnings will affect the cost of debt (COD). This is consistent with the results of research by Persakis, Anthony [4]; da Silva & Nardi [5]; Li, Si [6]; Eliwa, Haslam, & Abraham [7]; Barth, Konchitchki, & Landsman [8], all of who report that earnings quality negatively affects the cost of capital.

However, the influence of nonaccounting factors, such as the characteristics of the directors reflected in their report and in the annual company report, may be underestimated in the decision-making process of the investors. In fact, this has an influence on the results of research from Yekini, Wisniewski, & Millo [9], who report that narrative annual reports affect how investors perceive companies in the UK. Leung, Parker, & Courtis [10] state that the language used by management gives a signal regarding the company's current performance future prospects. The present study investigates the influence of both accounting variables in the financial statements and narrative reports of directors in the annual report regarding the cost of corporate debt.

Many researchers, such as Yekini, Wisniewski, & Millo [9], Paige Fields, Fraser, & Subrahmanyam [11], Barth, Konchitchki, & Landsman [8], have focused on capital markets for similar studies. This study, however, focuses on the credit market. This is because investors in the credit market mainly consist of professionals, i.e., institutional investors that are considered more capable in responding to any information released by the company [12]. This study is based on the research of Li & Richie [12] but also adds variable predictability earnings and uses income-smoothing measurements. The two measurements used in this study are based on the measurements reported by Zhai & Wang [1].

This study contributes to the literature regarding factors affecting COD. Firstly, this study provides a new insight into COD, which is not only influenced by accounting factors such as corporate earnings but also influenced by the characteristics of the board of directors as reflected directors' report, which is a narrative report drafted by the board of directors, in the company's annual report. Second, this study provides evidence that the characteristics of the board of directors are not only proxied with compensation, the proportion of the board of directors, the company's background but also through the report of the board of directors in the annual report. Third, this type of research that

uses a mixed method that combines the analysis of contents of the report of the board of directors with that of the quality of accounting information from quantitative data in the company's annual report, is rarely conducted in Indonesia.

The rest of the paper is organized as follows. Literature review and hypotheses development are described in Section II, followed by methodology in Section III. Section IV presents the results. Section V discussion, and Section VI provides the conclusion of this study.

II. Literature Review And Hypotheses Development

A. Accounting Information Quality And Cost of Debt

Improving the quality of financial statement information can decrease the information asymmetry between management as an agent and investor or creditor as the principle. The quality of financial statement information can also signal to investors or creditors about the viability of the company. Certainty in the company's future prospects will make investors or creditors feel safe when they have an investment or lendings to that company so that finally can decrease the cost of capital.

Management actions in improving the quality of accounting information is closely related to the agency theory, which encourages the occurrence of agency problems between principals (investors) and agents (managers). Scott [13] states that if some parties involved in business transactions have more information than others, there is an information asymmetry. With discretion, the manager will take action to improve the quality of information, e.g., by producing earnings smoothing, so as to decrease COD to the company.

Previous research states that there is a relationship between the quality of accounting information and the cost of capital. Affleck-Graves et al., [14] look at the relationship between earnings predictability and bid–ask spreads to cost of equity. Their findings also show that companies with unpredictable earnings rates have a higher cost of capital. Persiak and Iatridis [15] prove that cost of capital (negatively related to cost of equity and COD) is negatively related to income quality (measured by consistency of ex post and ex ante, value relevance, accrual quality, earning persistence, earning predictability, and earning smoothness). The existence of high earnings in the company associated negatively with COD. Persakis research, Anthony [4] states that earnings quality negatively affects the cost of capital. However, as per Li & Richie [12], the higher earning smoothing, the smaller COD. According to these, the hypotheses related to the influence of accounting information quality to COD in this research are as follows:

H1a: Earnings predictability is negatively associated with COD.

H1b: Earnings smoothing is negatively associated with COD**.**

B. Board Narrative Disclosure And Cost of Debt

Nonaccounting factors, such as the behavior of the directors reflected in the report of the board of directors in the annual report have been underestimated in decision-making process. Some previous studies provide evidence that nonaccounting factors can also provide a signal that can be taken into consideration in making decisions. The characteristics of the board of directors reflected in the report of the board of directors are closely related to the signaling theory. The expression of the board of directors can give both positive and negative signals to investors, so that it can affect COD of that company.

This is in accordance with research Bamber et al., [16] which stated that sociological, professional, individual, and managerial conditions have an effect on various decisions. The findings of Kothari and Short [17] also show that positive disclosure positively affects capital costs and price volatility, whereas Li [18] suggests that the tone of forward-looking statements has a predictive power for the company's future prospects. Davis et.al. [19], Demers and Vega [20], and Huang et.al., [21] documents an optimistic disposition regarding corporate earnings associated with abnormal market returns. Similarly, Yekini, Wisniewski, & Millo [9] have shown that narrative annual reports have an effect on the perceptions of investors of UK-based companies [10] mentioned that the language used by management signals the company's current performance and future prospects. The Sehinnga hypothesis proposed in this research is as follows:

H2: The board narrative disclosure is positively associated with COD

C. Research Framework

This study will examine the influence of both the accounting variables in the financial statements and the narrative reports of directors in the annual report on COD. Past research has shown that accounting information quality projected, along with earnings predictability and earnings smoothing, is negatively correlated to COD. It also shows that the better the quality of accounting information, the lower COD that must be borne. However, the characteristic of the board viewed from the narrative reports of directors in the annual report is positively correlated with COD. Several studies have shown that the positive level and optimism of the board of directors can give stakeholders good expectations of the future of the company, so that they expect a higher return on borrowed funds.

This research seeks to develop hypotheses according to the agency theory and the signaling theory. Therefore, according to the development of existing hypotheses, the research framework to be conducted is as follows:

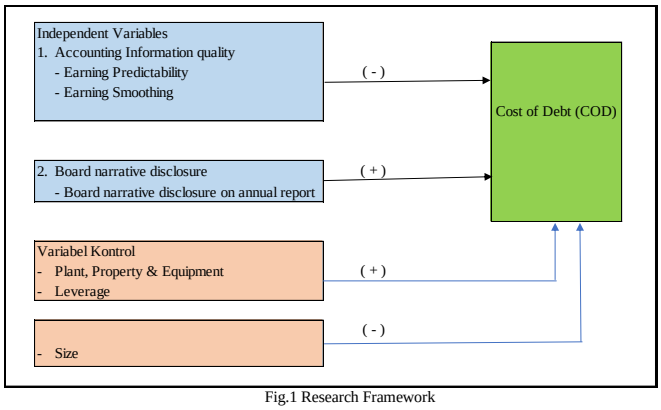

Fig.1 Research Framework

III. Research Methodology

A. Overview

This research is a quantitative empirical study because the result of the content analysis is processed simultaneously in the regression model. This is in accordance with the purpose of research, which is to determine the effect of quality of accounting information and the narrative disclosure of the board of directors against the corporate COD. This research is according to two theories, i.e., (a) the agency theory: to answer questions regarding the influence of accounting quality and (b) the signaling theory to answer the question regarding the influence of board narrative disclosure to COD to the company.

B. Research Method

This research uses the mixed method of data collection because the data used includes financial statement data and content analysis of the report of the board of directors in the annual report. Overall, this study is a quantitative empirical study because the results of content analysis are processed simultaneously in the regression model. Nonfinancial companies listed on the Indonesia Stock Exchange comprised the sample for this study. The sampling method is purposive sampling in which elements are entered into the sample deliberately to meet the criteria used with the sample record, which is representative of the population [22]. The criteria used in the sampling are as follows:

1. Companies registered in the IDX period 2014–2015.

2. Finance, insurance, leasing, and investment companies were excluded from the research sample because they have different characteristics.

3. During the observation period, the company does not restructure, merge, or acquire another company.

4. The data used is secondary data shown in the financial statements and the content analysis in the form of the reports of the board of directors in the annual report.

5. Has all of the necessary parts of the required variables.

C. Data Analysis

In this research, content analysis of the narrative report of the board of directors of the annual report is used to evaluate the characteristics of the directors. Some of the keywords used are related to the positive nature and optimism in the Yekini et al.'s 2016 research [9]. These keywords are the modified by searching for their equivalents in KBBI. The data is processed using Nvivo software. Our aim is to determine the level of optimism of directors within the company and to provide a positive signal to investors, which can subsequently affect investment decisions and COD to companies.

IV. Results

A. Population and Sample

This study uses a sample of all companies listed on the Indonesia Stock Exchange (BEI) in the period 2014 to 2015. As described in the research methods regarding COD calculation, this research has also used some of the data from 2013. The process of selecting samples performed in several stages to produce the final sample of the study is shown in the Table I.

B. Equations

This research model is according to research conducted by Anderson, Mansi, and Reeb [23] and Shuto and Ktagawa [24]. The study uses independent variable $t - 1$ with the consideration that the interest rate on loan or debt is set at the beginning of the period, so that the creditor uses the accounting information and the company's performance in the past as a consideration. Thus the model used in this study is as follows:

$$COD_t = \alpha_0 + \alpha_1 PREDICT_{t-1} + \alpha_2 SMOOTHING_{t-1} + \alpha_3 BOARDt\text{-}1\ \alpha_4 SIZE + \alpha_5 PPE + \alpha_6 LEV + \varepsilon \quad (1)$$

Information:

COD = cost of debt is the interest of the loan received by the company, which to be paid by the company

PREDICT = Earnings predictability describes the company's current earnings ability to predict future earnings, as measured by the standard deviation of residual return on assets

SMOOTHING = Earnings smoothing describes the equity of profits made by the company, measured using the residual standard deviation of net income against operating cash flow

BOARD = Characteristics of the directors reflected in the narrative report of the board of directors in the annual report, using several keywords related to the positive nature and optimism for subsequent extraction with software Nvivo

SIZE = Company size (total natural logarithm of assets)

PPE = Net property, plant, and equipment divided by total assets

LEV = ratio of total debt to total assets

ε = error term

TABLE I. SAMPLE SELECTION

Criteria	Number of companies
Initial sample from website idx.co.id	528
(-) Financial, insurance, leasing, and security companies	(89)
(-) Mergers or acquisitions	(203)
(-) Missing values of independent variables	(119)
(-) Outliers	(11)
Final sample	106

[a.] table. The sample consists of 212 company–year observations (106 companies) for the period 2014–2015

C. Findings

1) Statistics Descriptives

TABLE II. STATISTICAL DESCRIPTIVE VARIABLES

Variable	Mean	Median	Maximum	Minimum	Standard Deviation
CODt	0.49206	0.033535	0.212981	0.000174	0.045749
PREDICT	5.013679	3.420000	18.95000	0.230000	4.391902
SMOOTHING	2.793986	0.72618	57.69124	0.000610	8.010558
BOARD	0.014515	0.014000	0.029600	0.002400	0.005202
SIZEt	12.50904	12.48036	14.01352	11.17024	0.615272
PPE	11.89462	11.92500	13.80000	8.090000	0.830606
LEV	0.512986	0.507049	1.406920	0.040722	0.222683

The table above presents the descriptive statistics for the sample identified in the sample selection

2) Pearson Correlation Analysis

In this section, Pearson correlation is performedwith the aim of ensuring the variables in this regression model indicate multicollinearity. If the correlation value of Pearson testing is >0.9, the indicated occurrence will be multicollinear. Pearson correlation test results show that the correlation value of each variable is ≤0.9. It shows that the research model is free from multicollinearity problems.

3) Results of the Regression Model

According to the test results presented in Table IV, the independent variables (i.e., earning smoothing and board narrative disclosure) and control variables (i.e., firm size, plant composition, property and equipment, sever leverage level) can explain for 20.34% of the dependent variable (i.e., COD), whereas the remaining 79.66 is explained by other variables not used in this research model.

V. DISCUSSION

According to Table III, some results show that H1a was rejected, H1b was accepted, and H2 was accepted. The following is an explanation of these variables.

A. Earnings Predictability and Cost of Debt

According the test results in Table III, the value of the significance of earnings predictability variable to COD is equal to 0.1311 or > 0.10.

This means that earnings predictability is positive but not significant to the COD of the company. This result rejects H1a, which suggests that earnings predictability is negatively associated with COD.

This is inconsistent with the results of previous studies by Affleck-Graves et al. [14], who examined the relationship between earnings predictability and bid–ask spreads to cost of equity. The findings show that companies with earnings that are hard to predict have a higher cost of capital. This result is because of the lack of investor ability to understand earnings predictability information.

B. Earnings Smoothing and Cost of Debt

According to the test results in Table III, the value of the significance of earnings smoothing variables regarding COD is equal to 0.04715 (i.e., <0.05), which means that the variable earnings smoothing has a significant negative effect the on COD with a negative coefficient of −0.000855. That is, every 5% increase in earnings smoothing then COD borne by the company will decrease by 0.086%. These results support the H1B that states that earnings smoothing is negatively associated with COD.

The results of this study are in agreement with the agency theory and reveal the existence of an information asymmetry between the principals and the agents. Scott [13] states information asymmetry (information asymmetry) occurs if some parties involved in business transactions have more information than others. Increasing information asymmetry will encourage managers to take income-smoothing action.

The results of a survey conducted by Graham et al. [25] in Aulia [3] state that 78% of the 421 financial managers chose to do income smoothing because investors will assess a company's profit so as to ensure a low-risk investment.

The results of this study are consistent with those by Li & Richie [12], who state that the higher the income smoothing, the lower the COD to the company. The company's profit information is used as a benchmark by investors in identifying the company's risk. The higher the profit variability of the company, the higher the risk borne by the investor, which will affect the company's COD. According to Trueman and Titman [26], Graham et al. [25], and Aulia [3], the variability of earnings can increase the company's COD. To avoid high COD, management should carry out earnings smoothing to influence investor perceptions of corporate risk. As this risk decreases, the COD also declines.

C. Board Narrative Disclosure and Cost of Debt

According to the test results in Table III, the value of board narrative disclosure variable significance to COD is equal to 0.0076 (i.e., <0.01), which means that the variable constituting the narrative report of the board of directors has an effect on COD, with a positive coefficient of 1.9309. This means that with every 1% increase of the report's variables, COD borne by the corporation increases by 1.93%. The results of this study support H2, which states that the board narrative disclosure is positively associated with COD.

If associated with the signaling theory, the test results show that positive phrases as well as the optimism reflected in the report of the board of directors in the annual report indicate the confidence of the board in achieving the company's goals and objectives. It indirectly gives positive signals to the stakeholders in making investor decisions.

TABLE III. RESULTS OF THE REGRESSION MODEL

Variable Dependence: COD			
Variable	***Predicted sign***	***Coef.***	**Sig.**
C		0.007018	0.469
PREDICT	-	0.001020	0.1311
SMOOTHING	-	−0.000855	0.04715**
BOARD	+	1.930989	0.0076***
SIZE	-	−0.013171	0.10235*
PPE	+	0.013271	0.0474**
LEV	+	0.035750	0.0298**
Prob. F		0.0223	
Adjusted R^2		0.2034	
N		212	
[a.] *, **, and *** represent statistical significances at the 10%, 5% and 1%			

TABLE IV. PEARSON CORRELATION TEST

	COD	**PREDICT**	**SMOOTHING**	BOARD	SIZE	PPE	LEV
COD	**1.000000**						
PREDICT	0.063872	**1.000000**					
SMOOTHING	0.021289	−0.104652	**1.000000**				
BOARD	0.066746	−0.057703	0.071342	**1.000000**			
SIZE	−0.019320	0.005262	0.110080	−0.031175	**1.000000**		
PPE	0.034377	−0.007814	0.113314	−0.079758	0.713748	**1.000000**	
LEV	0.148892	0.069293	0.149542	0.032970	0.258491	0.273810	**1.000000**

This is in accordance with the research of Bamber et al., [16] which states that sociological, professional, individual, and managerial conditions have an effect on various decisions. The findings of Kothari and Short [17] also show that positive disclosure positively affects capital costs and price volatility, whereas Li [18] suggests that the tone of forward-looking statements have a predictive power for the company's future prospects. Likewise, Davis et al. [27], Demers and Vega [20], and Huang et al., [21] documented an optimistic viewpoint regarding corporate earnings associated with abnormal market returns. In this case, investors and creditors will expect a higher rate of return, which means greater COD must be borne by the company.

VI. CONCLUSION

Credible and quality reports regarding the health of the companies are essential because company-related information is a factor related to risk for investors. Any information issued by the company will be considered by investors as the basis for decision-making. The higher the risk associated with the company, the higher the COD expected by creditors and investors. This study proves that COD is not only influenced by accounting factors such as corporate earnings information but also influenced by the characteristics of directors, as reflected in the report of the board of directors in the annual report. This report shows the level of optimism of the directors running the company, which is closely related to the signaling theory. The optimism of the directors reflected in the narrative disclosure poses a positive signal for the company's external stakeholders so that investors will expect a high rate of return. More optimism from the board of directors prompts the investors be assured of good performance of the company, which subsequently results in a lower COD.

This study has limitations related to the measurement of variables. The results obtained in H1a are inconsistent with those of previous research. This is probably because of a weakness in the measurement of the proportion of earnings predictability. The implications of this research are for the stakeholders—i.e., the investors and creditors—to use nonfinancial factors as well for making decisions.

Future studies are expected to conduct research on other proxies for the quality of accounting reports, such as earnings management and earnings persistence. In addition, nonfinancial factors, such as characteristics in the CEO's report, can be used to as proxies based on theories other than the signaling theory. Further multinational studies can also be conducted so that the results can be generalized.

REFERENCES

[1] J. Zhai and Y. Wang, "Accounting information quality, governance efficiency and capital investment choice," China J. Accounting Res, vol. 9, pp. 251–266, 2016

[2] V. Diyanty, "Pengaruh Kepemilikan Pengendali Akhir terhadap Transaksi Pihak Berelasi dan Kualitas Laba," Disertasi, Universitas Indonesia, 2012.

[3] A. Aulia, "Pengaruh income smoothing terhadap cost of debt dan cost of equity dengan Peran Moderasi corporate governance dan konflik Keagenan antara debtholder dan stockholder". Universitas Indonesia. Tesis, 2013.

[4] Persakis, Anthony, Iatridis, and G. Emmanuel, "The joint effect of investor protection, IFRS and earnings quality on cost of capital: An international study," J. Int, Financial Markets, Institutions Money, Elsevier, vol. 46(C), pp. 1-29, 2017

[5] R. L. M. da Silva and P. C. C. Nardi, "Full adoption of IFRSs in Brazil: Earnings quality and the cost of equity capital," Res. Int. Bus. Financ, vol. 42(C), pp. 1057-1073, 2017.

[6] B. Lisi, "Subjectivities in the sandbox: discovering biases through visual memo writing," J. Educ. Dev, vol. 35(2), pp. 326-338, 2016

[7] Y. Eliwa, J. Haslam and S. Abraham, "The association between earnings quality and the cost of equity capital: Evidence from the UK," Int. Rev. Financ Anal, vol. 48(C), pp. 125-139, 2016.

[8] M. E. Barth, Y. Konchitchki and W. R. Landsman, “Cost of capital and earnings transparency,” J. Acc. Econ., vol. 55, pp. 206–224, 2013.

[9] L. S. Yekini, T. P. Wisniewski, and Y. Millo, “Market reaction to the positiveness of annual report narratives,” Br. Accounting Rev, vol. 48, pp. 415–430, 2016.

[10] S. Leung, L. Parker, and J. Courtis, “Impression management through minimal narrative disclosure in annual reports,” Br. Accounting Rev, vol. 47, pp. 275–289, 2015.

[11] L. P. Fields, D. R. Fraser and A. Subrahmanyam, “Board quality and the cost of debt capital: The case of bank loans,” J. Banking Financ, vol. 36(5), pp. 1536-1547, 2012.

[12] S. Li and N. Richie, “Income smoothing and the cost of debt,” Cn. J. Acc. Res., vol. 9, pp. 175–190, 2016.

[13] W. R. Scott, “Financial Accounting Theory,” 2nd ed, Prentice Hall Canada Link. Scarborough: Ontaria, Canada, 2015

[14] J. Affleck-Graves, C. Callahan, and N. Chipalkatti, “Earnings predictability, information asymmetry,and market liquidity,” J. Account. Res., vol. 40, pp. 561–583, 2002.

[15] A. Persakis and G. Iatridis, “Cost of capital, audit and earnings quality under financial crisis: a global empirical investigation,” J. Int. Financ. Markets, Institutions & Money, vol. 38, pp. 3-24, 2015

[16] L. S. Bamber, J. Jiang, and I. Y. Wang, “What’s my style? The influence of top managers on voluntary corporate financial disclosure,” Acc. Rev., vol. 85, pp. 1131–1162, 2010.

[17] S. P. Kothari and J. Short, The Effect of Disclosures by Management, Analysts, and Financial Press on the Equity Cost of Capital. eBusiness@ MIT, 2003

[18] F. Li, “The information content of forward-looking statements in corporate filings e a naïve machine learning approach,” J. Acc. Res., vol. 48, 2010.

[19] A. K. Davis, J. M. Piger, and L. M. Sedor, “Beyond the numbers: measuring the information content of earnings press release language,” Contemp. Acc.Res., vol. 29, pp. 845–868, 2012.

[20] E. A. Demers and C. Vega INSEAD faculty&research working paper, “Soft information in earnings announcements: news or noise?” In, SSRN Journal, 2010.

[21] X. Huang, S. H. Teoh, and Y. Zhang, “Tone management,” The Accounting Rev, vol. 89, pp. 1083–1113, 2014.

[22] Suprapto, .Manajemen Sumber Daya Manusia, Erlangga. Jakarta: 2003.

[23] R. C. Anderson and D. M. Reeb, “Founding-family ownership and firm performance: evidence from S&P,” J. Fin., vol. 58, pp. 1301–1328, 2003.

[24] A. Shuto and N. Kitagawa, “The effect of managerial ownership on the cost of debt: Evidence from Japan,” J. Accounting Auditing Financ, vol. 26, 2010.

[25] J. R. Graham, C. R. Harvey, and S. Rajgopal, “The economic Implication of Corporate Financial Reporting,” J. Acc. Econ., vol. 40, pp. 3–73, 2005.

[26] B. Trueman and S. Titman, “An explanation of accounting income smoothing,” J. Acc. Res., vol. 26, pp. 127–139, 1988.

[27] C. H. F. Davis, M. S. G. Canche, R. Deil-Amen and C. Rios-Aguilar, Social Media in Higher Education: A Literature Review and Research Directions. Arizona: The Center for the Study of Higher Education at the University of Arizona and Claremont Graduate University, 2012

APPENDIX

Positive, definite, assertive, sure, real, build, successful, successful, lucky, succeed, success, success; luck, completion, process, strong, endurance, durable, strength, strengthening, strengthening, best, repair, fix, best, better, good, worth, lucky, profitable, honest, honorable, reward, rewarding, rewarding, rewarding, rewarding, rewarding, beneficial, rewarding, lead, lead, lead, lead, leadership, guide, guide, train, increase, increase, composition, comparability, increase, level, increase..