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Corporate Governance, Voluntary Disclosure, Earning Quality, Information Asymmetric: A Conceptual Framework

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A B S T R A C T

There are many factors in financial markets that have different levels of understanding and knowledge in managing available information. With this condition, actors/participants, especially investors, will be informed differently, or there will be information asymmetry in the financial market. This study aimed to develop a conceptual framework that investigates and provides a systematic understanding of the relationship between profit quality, voluntary disclosure, and information asymmetry as single and interaction effects. Furthermore, the study explains the role of corporate governance implementation on the quality of earnings and voluntary disclosure. The explanation of the relationship between the variables studied is based on agency theory with a literature review related to earning quality, voluntary disclosure, information asymmetry, and corporate governance. This conceptual framework illustrates the impact of earning quality and voluntary disclosure on information asymmetry and the role of the interaction between earnings quality and voluntary disclosure of information asymmetry. The results of the literature review present five prepositions that can be formulated in hypotheses to be confirmed. In conclusion, this framework allows researchers and practitioners to investigate further the relationship between variables intended in this research model.

1. Introduction

Many factors in financial markets have different levels of understanding and knowledge in managing available information. With this condition, actors/participants, especially investors, will be informed differently, or there will be information asymmetry in the financial market. An essential role in this financial market is presenting helpful information, especially to investors, as a guide for allocating their equity. Accounting information that is commonly used is earnings. Earnings information is said to be of quality and can be seen from the extent to which the earnings can be mapped to cash flow. Poor mapping will reduce the content of reported earnings information, producing lower-quality earnings. This poor earnings quality will result in investors being increasingly informed differently, which will exacerbate information asymmetry in financial markets (Diamond et al., 1991; Cormier et al., 2012; Purwanti et al., 2013; Tariverdi et al., 2015). Analytical models predict that differences in information between market participants increase the risk of adverse selection for liquidity providers (Back et al., 2004). In response to this increased risk, liquidity providers demand more significant compensation and widen the spread between the bid and ask price, lowering liquidity and increasing the cost of capital. Francis et al. (2008) show that companies in the United States with poor earning quality have a higher equity cost than companies with

better earnings quality. Consequently, the determinants and consequences of earnings quality are attractive to investors, managers, regulators, and standard setters.

The disclosure of information about company activities carried out ethically is an essential concern in this era of globalization, especially environmental disclosure (Iqbal et al., 2013). This is due to the increasingly intense and open media coverage on the issue of climate change and global warming, as well as national disasters, either natural or corporate negligence. Furthermore, Cormier et al. (2012) prove that the interaction between web-based disclosure and earning quality can reduce information asymmetry. This has led to greater attention to sustainability reporting, transparency of disclosure, and accounting information's role in generating relevant and reliable financial information. This research focuses on the variable role of voluntary disclosure with web-based disclosure media because these mediums provide managers with more flexibility compared to traditional (manual) reporting means, especially regarding reach, presentation, and content. This is supported by the plan of the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM and LK) of the Ministry of Finance of the Republic of Indonesia to require the use of XBRL (electronic reporting system based on HTML/e-reporting system) in 2015 for companies listed on the Indonesia Stock Exchange in presenting their financial reporting (IDX, 2014). However, in Indonesia, research that focuses on the impact of web disclosure on financial markets has not been widely published, as well as environmental disclosures. Voluntary disclosures will provide more value to the company because the company's management provides information that will attract investors' attention. Therefore, web-based disclosures and environmental disclosures are intended to increase the usefulness of information within the company to provide good news for investors (Yusoff et al., 2006) and reduce information asymmetry (Bahmani, 2014). Furthermore, through this disclosure, the company's image is expected to improve and certainly increase stakeholder perception, further increasing shareholder value (Apergis et al., 2012). This is also supported by the pollution control, evaluation, and rating program (PROPER) issued by the government in June 1995, an environmental disclosure initiative to map, disseminate, and improve the company's environmental performance (Ardiansyah, 2014). However, because of its voluntary nature, it was not yet the center of attention when this program was introduced. This program became the center of attention only after many media reports about environment-related incidents due to natural causes and company negligence.

On the other hand, the quality of the company's earnings cannot be separated from agency conflicts. When the owner (principal) delegates decision-making authority to management (agent), where management has more extensive information than the owner, this causes information asymmetry between the owner and management. According to Richardson (1998), information asymmetry is inseparable from the existence of profit management (earning). Therefore, a supervisory mechanism is needed to improve the quality of earning related to limiting management actions to carry out profit management. The supervisory mechanism is known as corporate governance. Corporate governance mechanisms can be divided into internal and external (Babatunde, 2009). Internal corporate governance mechanisms include the board of commissioners assisted by the audit committee, while external mechanisms can be played by external auditors who guarantee the company's financial statements. In addition to improving earning quality, Cormier et al. (2012) provide evidence that corporate governance also positively influences disclosure. This study aims to investigate: 1) whether the interaction between the quality of earnings and web-based voluntary disclosure and environmental disclosure affects

information asymmetry, 2) whether the application of corporate governance affects the quality of earnings and voluntary disclosure, and 3) whether information asymmetry affects stock return. This study replicates research conducted by Cormier et al. (2012). However, this study is different from the research of Cormier et al. (2012)in terms of measuring audit committee size, namely using the proportion of independent members and members who understand finance and accounting based on research conducted by Ashbaugh et al. (2004) that the proportion of audit committees that have an understanding in finance and accounting negatively affects the cost of equity.

2. Literature Review

Information asymmetry using a bid-ask spread proxy as predicted by Kyle's model and Glosten and Milgrom's model Back et al., (2004), while Cormier et al. (2012) used a proxy share price volatility because an effective spread can capture the cost of providing liquidity that is non-informational and informational. To improve the quality of the information provided, companies may make more disclosures on reporting made to reduce this information asymmetry. The research of Diamond (1985) showed that higher-quality disclosure leads to decreased information asymmetry. Diamond (1985) also points out that investors' incentive to obtain personal information diminishes when entities disclose information to the public. This suggests that higher-quality disclosures reduce the incentive to seek personal information. Furthermore, Diamond et al. (1991) showed that disclosing information to the public in reducing information asymmetry can reduce an entity's cost of capital by attracting attention to higher demand from large investors due to increased liquidity of securities. Other empirical studies that provide evidence consistent with theoretical predictions that higher quality public disclosure reduces information asymmetry between market participants and lowers the cost of capital are Cormier et al. (2012), Botosan (2006); Lang et al. (2000); Botosan e al., (2002) and Welker (1995). These studies show an inverse relationship between the disclosure quality and the bid-ask spread. The implication of these studies is to show that disclosure is negatively related to information asymmetry.

Bhattacharya et al. (2013) point out that although earning is still an important public disclosure, the development of extant research does not provide an adequate basis for inferring a reliable relationship between earnings quality and information asymmetry. The studies provide different reasons for reaching this conclusion due to the inadequate or improper use of proxies to operationalize the core construct, using smaller sample sizes and parts of the company. Furthermore, Bhattacharya et al. (2013) concluded the relationship between accruals based on earnings quality and information asymmetry based on research. According to the theory, less informed investors may be unable to process the information in earnings compared to their more sophisticated counterparts. Sloan points out that marginal investors fail to fully include the mean reverting of the accruals of companies with high accruals. Define accrual (short term) as the magnitude of estimation error indicating that accruals (short term) are higher, and the quality of earnings will be lower due to a higher probability of estimation error.

Research by Francis et al. (2008) shows that companies in the United States with poorer earnings quality have higher costs of equity than companies with better earnings quality. Likewise, the research results by Francis et al. (2008) and Botosan (2006) stated that the quality of earnings negatively influences the cost of equity. Bhattacharya et al. (2013); and Cormier et al. (2012) concluded that the relationship between earnings quality (based on accrual) and information asymmetry at high accruals leads to poor earning quality and higher levels of information asymmetry, thus forming a negative relationship between earnings quality (accrual based).

Information asymmetry or earning quality negatively affects information asymmetry. Cormier et al. (2012) provide evidence that the interaction between web-based voluntary disclosure affects the relationship between earning quality and information asymmetry. Companies with poor earnings quality will exhibit more significant information asymmetry. To address this, most companies will make increased disclosures. For companies with high earning quality, increased disclosure is still advantageous, but there is still an information asymmetry between managers and investors. This is in line with the argument that stock market participants assess the quality of financial reporting by considering the overall information disclosure of the company will provide more benefits for the company.

Gietzmann et al. (2003) stated that firms can communicate through voluntary disclosure and accounting policies. They show that, in equilibrium, companies communicate through good earning qualities (i.e., conservative accounting options) or voluntary disclosure. Their model highlights that, in equilibrium, firms that have adopted conservative accounting policies find little additional benefit from voluntary disclosure. Likewise, for companies that adopt aggressive accounting policies, the market will punish them with a higher cost of capital. The market will distinguish between good and bad news, with awards for companies that reveal good news. However, it is still possible to leave them with an increased cost of capital over the conditions of companies that adopt conservative accounting. As a result, voluntary disclosure is predicted to affect the cost of capital only for companies with poor quality earnings (i.e., aggressive accounting policies) (Botosan et al., 2002; Gietzmann et al., 2003). Francis et al. (2008) research also found that the effect of the cost of capital for voluntary disclosure was substantially reduced or disappeared altogether (depending on the proxies of capital costs) for companies with poor earnings quality.

One of the internal mechanisms of corporate governance is the board of directors (board of commissioners in the context of two tiers adopted in Indonesia) (Babatunde, 2009). To assist its duties and responsibilities, an audit committee assists the board of commissioners. Gendron et al. (2006) stated that the audit committee's role is to pay attention to the accuracy of the information contained in the financial statements, the effectiveness of internal control, and the quality of the performance of external auditors. Thus, the effectiveness of the board of commissioners and audit committee is suspected to affect the quality of earnings reported in the financial statements. Xie et al. (2003) and Klein (2002) also showed that corporate governance practices affect earning quality. Previous studies have shown that different proxies measure the effectiveness of the board of commissioners and audit committees. Cormier et al. (2012) and Xie et al. (2003)show that the composition of the board in general and the audit committee, more specifically, is related to the likelihood that the company will engage in earning management. Board members and audit committees with corporate or financial backgrounds deal with companies with smaller discretionary accruals. The frequency of board and audit committee meetings is also associated with declining discretionary accrual rates. The study concluded that the activities of audit boards and committees and the sophistication of their members' financial analysis capabilities are essential factors in inhibiting managers' tendency to engage in earning management.

Klein (2002) also showed a negative relationship between the independent audit committee and abnormal accruals, and a negative relationship was also found between board independence and abnormal accruals. A reduced board or audit committee independence is associated with a significant increase in abnormal accruals. Meanwhile, Ashbaugh et al. (2004) provide evidence that the number of audit committee members who have expertise in accounting

has a positive effect on the quality of earnings, and the proportion of independent audit committees has a negative influence on discretionary accruals (Xie et al. 2003 and Klein 2002). The extent to which information disclosure contributes to the optimal allocation of limited economic resources has a substantial and valuable role in helping investors make decisions. In addition, decisions made at the financial information disclosure level, corporate reporting, the composition of information sources, and the quantity and quality of information disclosed are influenced by many factors (Archambault et al., 2003). Thus, empirical assessments of influential variables in disclosure can create spaces and constraints that contribute to improving the quality of such disclosures. Khodadadi et al. (2010) examined the influence of corporate governance structure on voluntary disclosure in Iran. Although the study showed no relationship between the percentage of independent directors on the board and the extent of disclosure, it did show a relationship between the percentage of institutional investors and the level of voluntary disclosure. Furthermore, Erer et al. (2011) also found that a more significant proportion of independent directors and higher corporate governance ratings were associated with increased levels of financial disclosure over the Internet. So it is suspected that corporate governance positively influences web-based voluntary and/or environmental disclosure.

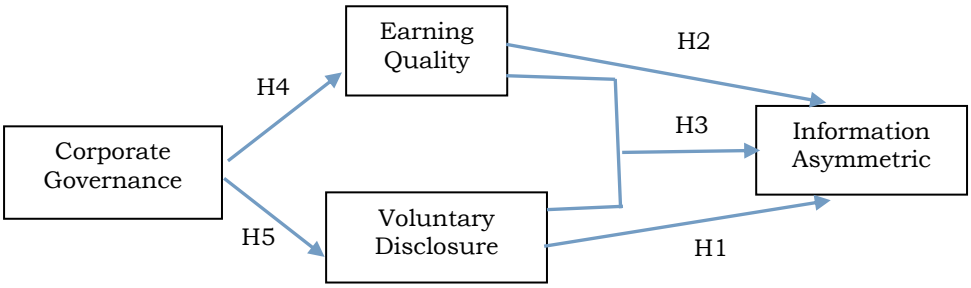

Figure 1. Research model (H1-H5: hypothesis 1-5).

3. Methods

The sample of this study is all companies listed on the Indonesia Stock Exchange, with an observation period of 2010-2014, with the criteria of companies conveying information/disclosure to the public through web media/internet/company sites, especially environmental disclosures and having the information needed in this study. Data is obtained from data on the Indonesia stock exchange through the IDX.co.id website. This observation period is based on the issue that in 2010, the Citarum River (Ci Tarum) was awarded the title of "the most polluted river in the world" by the most prominent online site in the United States, huffingtonpost.com. Also, the Blacksmith Institute and Green Cross Switzerland (2013) included the Citarum River in the "top ten toxic threats in 2013". The river, which is the lifeblood of around 5 million people, has more than 500 factories on its right and left competing to dispose of their waste into the Citarum River (source: http://alamendah.org), as well as BAPEPAM's plan to make use of XPRL mandatory in 2015.

Operationalization of variables
The research equation for testing the hypothesis is:

$$IA_{it} = c_0 + c_1 EQ_{it} + c_2 VD_{it} + c_3 EQ_{it}.VD_{it} + \varepsilon \quad \text{..... (1)}$$

$$EQ_{it} = c_0 + c_1 ID_{it} + c_2 BS_{it} + c_3 ACS_{it} + c_4 MB_{it} + c_5 SIZE_{it} + c_6 LEV + \varepsilon \ldots\ldots\ldots\ldots (2)$$

$$VD_{it} = c_0 + c_1 ID_{it} + c_2 BS_{it} + c_3 ACS_{it} + c_4 MB_{it} + c_5 SIZE_{it} + c_6 LEV + \varepsilon \ldots\ldots\ldots\ldots (3)$$

Information:
EQit = earning quality
IDit = independence of the Board of Commissioners
BSit = number of Board of Commissioners
ACSit = number of audit commits
MBit = market-to-book ratio
SIZEit = company size
LEVit = leverage
VDit = voluntary disclosure
IAit = Information Asymmetry

Hypotheses 1, 2, and 3 are tested using the Equation 1 model; Hypothesis 4 is tested using the Equation 2 model; Hypothesis 5 is tested using the Equation 3 model

4. Results and Discussions

Earning quality (EQ)

Earnings quality is measured using discretionary accrual and accrual quality. In this study, the accruals quality was obtained using the model of Francis et al. (2005), while discretionary accruals were used by Kothari et al. (2005). The higher the accruals and discretionary accruals, the lower the earning quality.

Model Francis et al. (2004):

$$TCA_{it} = c_0 + c_1 CFO_{it-1} + c_2 CFO_{it} + c_3 CFO_{it+1} + c_4 \Delta REV_{it} + c_5 PPE_{it} + \varepsilon_{it}$$

$$TCA_{it} = \Delta CA_{it} - \Delta CL_{it} - \Delta Cash_{it} + \Delta STDEBT_{it}$$

Model Kothari et al. (2005):

$$TA_{it} = c_0 + c_1(\Delta REV_{it} - \Delta AR_{it}) + c_2 PPE_{it} + c_3 ROA_{it} + \varepsilon_{it}$$

$$TA_{it} = NIBE_{it} - CFO_{it}$$

All variables are divided by the average of total assets.

TCA_{it} = Total current accrual of company i in year t
TA_{it} = Total accruals of company i in year t
ΔCA_{it} = Difference between current assets of company i in year t with year t-1
ΔCL_{it} = Difference in current liabilities of company i in year t with year t-1
$\Delta Cash_{it}$ = The difference in company cash i in year t with year t-1
$\Delta STDEBT_{it}$ = Difference in short-term debt that has an interest rate of the company i in year t with year t-1
CFO_{it-1} = Cash flow from operating activities of company i in year t-1
CFO_{it} = Cash flow from the company's operating activities i in year t
CFO_{it+1} = Cash flow from the company's operating activities i in year t+1
ΔREV_{it} = Difference in company revenue i in year t with year t-1
PPE_{it} = Gross property, plant, and equipment company i year t
ΔAR_{it} = Difference in company receivables i year t with year t-1
$NIBE_{it}$ = net earnings before outstanding company posts i year t
ROA_{it} = (NIBEit + Interest Exp. After Taxit)/Total Acetite
$AvrgAssets_{it}$ = Average total assets of the company i year t
E_{it} = Error coefficient to be used as the value of the discretionary accrual

In the model of Francis et al. (2004), the error value is calculated from year t-4 to year t and then calculated as standard deviation, which reflects the accrual (AQF) quality. While in the model of Kothari et al. (2005) model, the error value will be absolutized to produce the absolute value of discretionary accrual (AQK). The higher the value of AQF and AQK, the worse the quality of a company's earnings, and vice versa.

Voluntary disclosure (VD)

Disclosure is defined as a binary variable. Voluntary disclosure in this study is based on disclosures made by companies voluntarily using the company's website (Comier et al., 2012) and environmental disclosures.

Information asymmetry (IA)

Many proxies have been used to assess information asymmetry, including the cost of capital, share price volatility, analyst forecast dispersion, bid-ask spread, and Tobin's Q Cormier et al. (2012).To assess information asymmetry, this study uses proxies for the extent of the ask-bid price of the stock trade. This model was used by Venkatesh et al. (1986). This model is as follows;

$$SPREAD_{it} = \frac{(AP_{it} - BP_{it})}{(AP_{it} + BP_{it})/2} x100$$

$SPREAD_{it}$: The range of suggested stock price differences between buyers and sellers.

AP_{it} (ask price) : The proposed average share price for the selling company shares i during period t.

BP_{it} (bid price) : The average share price submitted to the buying company i during period t.

To make the measurement, first, the best bid-ask price for each stock trade is identified 21 days before and after revealing the earnings estimate (the best bid price is the highest price to buy each stock on each day, and the best ask price is also the lowest price to sell each stock in each day). Hence, the difference in the bid-ask levels of stock prices were measured using their average.

Corporate governance

Corporate governance is a variable used to capture the impact of corporate governance as a monitoring factor that affects disclosure and earnings quality of its impact on stock price volatility. Corporate governance variables in this study are independent director/board chair duality, board size, and audit committee size (Cormier et al., 2012). Independent director/board chair duality (ID) is considered and independent board if the proportion of outside directors, i.e., directors who are not executives and their families and controlling shareholders, exceeds 50%. Another aspect of the independent board is the separation of the roles of chairman and chief executive officer. Concluded that the independence of board members is practical when the chairman of the board differs from the CEO. Board size is measured based on the number of board members a company has and the number of board members squared to control for possible non-linear relationships between board size and information asymmetry Cormier et al. (2012). Ashbaugh et al. (2004) concluded that companies with a higher proportion of independent audit committee members have a lower cost of equity, and a proportion of audit committees with an understanding of finance and accounting negatively affect the cost of equity

Control variables

Market to book ratio (MB) is defined as the market value of equity divided by the book value of equity. This variable represents market expectations for the company's earnings growth. In order to achieve the goal of growth expectations, management can be motivated to carry out earning management. Therefore, it is expected that the growth rate (as measured by the market-to-book ratio) negatively influences the quality of earnings.

Company size (SIZE) is calculated by natural log market equity value. Watts et al. (1978) stated that large companies face higher political costs than small firms. This is because large companies tend to be observations of financial analysts or investors, making them less likely to manage earnings. Thus, the company's size is thought to positively affect the quality of earnings.

Leverage (LEV) is calculated using the total debt ratio to total assets. According to (Watts et al., 1978), companies with certain debt agreements with creditors tend to encourage managers to increase earnings because they want to avoid violations of these debt agreements that can negatively impact the company. Thus, companies with a high debt level will use high discretionary accruals to meet the covenant ratio set by creditors.

5. Conclusion

This study develops a conceptual framework that investigates and provides a systematic understanding of the relationship between profit quality, voluntary disclosure, and information asymmetry. Furthermore, the study explains the role of the application of corporate governance on the quality of earnings and voluntary disclosure. The explanation of the relationship between the variables studied is based on agency theory with literature related to earning quality, voluntary disclosure, information asymmetry, and corporate governance. This conceptual framework illustrates the impact of earning quality and voluntary

disclosure on information asymmetry and the role of the interaction between earnings quality and voluntary disclosure of information asymmetry. For investors, profit quality, voluntary disclosure, and information asymmetry are the information needed in making the right decisions related to their investments. While for companies, this conceptual framework provides insight into the impact of profit quality and voluntary disclosure on information asymmetry, it helps the organization make appropriate decisions and actions to maintain or improve its performance. Furthermore, for researchers, this conceptual framework provides an opportunity to test and validate frameworks with statistical test tools that can contribute further to the development of science.

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