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# Testing the role of independent supervisory board characteristics on the relationship between earnings management and quality of corporate social reporting disclosure

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**Abstract**

This research aims to examine whether a company with high earnings management discloses high quality Corporate Social Reporting (CSR) information to obscure the stakeholders' view related to earnings management practice within the company. The characteristics of independent supervisory board as formal supervisor is predicted to weaken the relation between earnings management and quality of CSR disclosure. Using Thompson Reuters and Osiris databases, 242 samples consist of 36 companies from 5 countries, namely Indonesia, Malaysia, Singapore, Thailand and Philippines were obtained. The results show that the proportion of independent supervisory board has negative role in moderating the relationship between earnings management and quality of CSR disclosure. The larger the proportion of independent supervisory board, the more effective the supervisory board in conducting supervision so the earnings management decreases. Companies with low earnings management do not have tendency in disclosing the CSR information with better quality as an effort to obscure the earnings management, so CSR information is revealed truthfully or even lower than expected.

## Introduction

Discussion related to ethics is an interesting issue for academia and business practitioners. Corporate Social Reporting (CSR) is considered as one important aspect for a corporate since stakeholders give special attention to social and environmental issues. Since then, the corporate's attention is not only focused on fulfilling responsibility toward shareholders, but also on stakeholders through CSR. CSR is related to business activities, especially the corporate's role in giving contribution to achieve the continuation of the economic, social and environment (Jenkins & Yakovleva, 2006). The corporate's contribution in achieving sustainable development is not only to make sure the return to shareholders, wages to the employees, and product and service to the customers, but also to deal with social and environmental problem (OECD, 2012). Porter and Kramer (2006) stated that there are four reasons a corporate performs social responsibility: as moral responsibility, sustainability concern, legitimacy from the government and society objective, and corporate's reputation. Porter and Kramer (2006) also emphasized the use of CSR as one of the corporate's efforts to influence external stakeholders in assessing the corporate's financial report performance. Stakeholders would summarize the corporate's financial report from the corporate's role in its social responsibility activities.

Further, Porter and Kramer (2006) stated that corporate which is able to balance its business and social activities has more advantages than other companies. As explained by Cohen (2009), corporate with social responsibility can change it as the corporate's competitive excellence.

To achieve excellence in the business activity, the management tried to maximize the corporate's profit by using various methods. Accounting information that functioned as a communication tool between corporate and external stakeholders was exploited by irresponsible parties for their benefits. One of the practices which is usually conducted for the management's benefit was earnings management.

Earnings management is management's intervention in the financial reporting process in order to gain self-advantage. Earnings management is also related to reporting which is created by corporate's internal party with aimed to mislead the stakeholders to influence the contract result (Gras-Gil et al., 2016; Healy, 1985). The former Chairman of SEC stated that earnings management as "accounting hocus-pocus", which meant diversion accounting. Managers tried to use the financial report flexibility to achieve profit expectation through accrual components. Activities which are under the guise of social responsibility are often used by the management to cover up the earnings management practices. It is done to influence external stakeholders' perception towards the corporate.

Corporate governance has important role in directing corporate's manager to act according to the principals of transparency, accountability, independent and full of responsibility. One of the elements which represented the corporate's governance is the existence of independent supervisory board. Independent supervisory board has the function of formal supervision to make sure the management acts according to the correct principle of corporate's governance. The characteristic of the independent supervisory board consisted of proportion of independent supervisory board, proportion of female independent supervisory board in the board of supervisor, and independent supervisory board with special skills in the financial field are presumed has the effect on the effectiveness of management supervision.

This research focuses on the relationship between earnings management and quality of CSR disclosure and the characteristic of independent supervisory board as the variable which moderates the relationship between earnings management and quality of CSR disclosure. As we observed, the research which tested relationship between earnings management and quality of CSR disclosure has never been conducted before. Research which has been conducted previously usually analyzed the relationship among earnings management, information quantity, and CSR activities. Whereas many information disclosed could not guarantee that it represented the real CSR quality (Eggert & Helm, 2003). Quantity of CSR are considered based on the items which disclosed in the CSR report, while the quality of CSR disclosure is not only reviewed from the total of the items being disclosed but also the item accordance which disclosed by assurance standard.

Using Thompson Reuters dan Osiris database, this research found 36 companies in ASEAN which fulfilled the criteria to become the samples, and came from 5 countries, Indonesia, Malaysia, Singapore, Thailand, and Philippines. From those 36 companies, the data which can be analyzed were 242 in total. The processed data were the unbalanced panel data and resulted in the conclusion that the proportion of independent supervisory board has a negative role in moderating the relationship between earnings management and quality of CSR disclosure. The bigger the proportion of independent supervisory board, the more effective the supervisory board in conduction supervision so the earning management would decrease. Corporations with low earnings management does not have a big tendency in disclosing CSR information with the better quality as the effort to cover the earning management, so CSR information would be revealed truthfully or even lower than expected.

## Literature Review

### Earnings Management and Quality of CSR Disclosure

Agency problems explained in the agency theory become the management's trigger to act opportunistic. Several research in the accounting literature juxtaposes the earnings management action with explicit bonus target of the management (Burgstahler & Dichev, 1997; Healy, 1985). Healy (1985).presented evidence that the earning management policy is related to the incentive which attached to the management's bonus contract. The management is motivated to gain bigger compensation by conducting earnings management practices. Income smoothing is a method often used by the management (Burgstahler & Dichev, 1997). Agency problems also focused on the asymmetrical information between corporate and stakeholders to decrease the asymmetrical information, the corporate conducted the disclosure (Odriozola & Baraibar-Diez, 2017). CSR disclosure was a corporate communication form to decrease asymmetrical information between management and investors (Reverte, 2009).

Social responsibility activities are often used by the management to cover the earnings management activity. It is conducted to influence the external stakeholders' perception towards the corporate. It is in accordance with legitimacy theory that the social activity implementation is a method to show that the corporate is in accordance with the society's expectation (Gray et al., 1995). Therefore, deeper CSR disclosure is not only to be used as accountability by the corporate towards stakeholders but also as an effort to cover the earnings management practices. Corporate disclosed the CSR activities information as much as possible to gain legitimacy from the stakeholders.

Other than CSR quantity disclosure, corporate's legitimacy is conducted by increasing the quality of CSR disclosure. Stakeholders has the expectation that CSR activities which conducted by the corporate has good implementation quality and information reporting. The expectation of stakeholders would be fulfilled through a good quality of CSR disclosure, so it affected the corporate's credibility and performance. A good corporate's reputation is also the result of perception and evaluation from stakeholders (Smaiziene & Jucevicius, 2010). As explained by MacLean and Rebernak (2007) corporate's reputation would increase as in line with the corporate's competitive excellence which gained through high quality of CSR information. As a result, CSR information disclosure which had good quality would affect the stakeholders' perception and increase corporate's reputation, so it can become a method of the corporate to obscure the stakeholders' view on earnings management practices. From the explanation above, we hypothesize:

**$H_1$:** Earnings management has positive effect on quality of CSR disclosure.

### Earnings Management, Quality of CSR Disclosure, and Characteristics of Independent Supervisory Board

Corporate governance is closely related to the management's role and stakeholders. Demirbas and Yukhanaev (2011) emphazised the importance of a good corporate governance in the relationship among management, board, shareholders, stakeholders. Agency problem which faced by the management and corporate's owner created the opportunistic action from the management. The management tried to maximize the personally profit by conducting earning management practices.

The role of independent supervisory board as part of corporate's governance has big impact to decrease the earnings management action by the management itself. Patelli and Prencipe, (2007)explained that based on the agency theory, independent supervisory board and disclosure are effective mechanisms to minimize agency problem and minimize the earning management. This is also explained by Fama and Jensen (1983) that independent supervisory board is expected to have the role to ensure the legality and decrease the agency problem. Research which supported by that theory was conducted by Erhardt et al. (2003) which stated that the existence of independent supervisory board could decrease the agency fund in certain situation.

We argued that the characteristics of independent supervisory board which consist of proportion of independent supervisory board, proportion of female independent supervisory board, and proportion of independent supervisory board with special skill in financial field is suspected can weaken the relationship between earning management and quality of CSR disclosure.

Supervisor board which dominated by independent board. independent board which dominated by the people who has bigger influence in conducting supervision on the management. As explained by Fama (1980) that the board which is dominated by non-executive and independent supervisory board had stronger position to supervising and control the management. As a result, it is expected that the bigger the proportion of independent supervisory board in the corporate, the lower the opportunistic action of the management to conduct earnings management. Jaggi et al. (2009) stated that big proportion of independent supervisory board will help to minimize the accrual profit which is possibly done by the management. Corporate which seldom in doing earnings management has the tendency to have less pressure to create the CSR disclosure with good quality. From the explanation above, the hypothesis formulated is:

**H$_2$**: More proportion of independent supervisory board weakens the positive relationship between earnings management and quality of CSR Disclosure.

Furthermore, the demography characteristics such as gender, has role in weaken the relationship between earning management and quality of CSR disclosure. Gender is one of the individual characteristics which can influence someone in behaving and in making decision. There are many companies which give more attention towards gender composition in the structure of board of directors and supervisors in the corporate.

In behaving and making decision, women have the tendency to be careful and avoid risk than men. Research done by Ran et al. (2015) explained that with such characters, women are more suitable for having the profession in accounting, management, and supervisory field. If review from the meeting attendance, women have higher record of attendance compared to men (Adams & Ferreira, 2009). From ethic point of view, women have bigger tendency to behave ethically compared to men (Ruegger & King, 1992). This influence on how female supervisor conducted supervision.

From the mentioned characteristics of women, this research presumed that female supervisory board had better effectiveness in conducting supervision on the management. This matter simultaneously will affect on the decrease the earning management level in the corporate. The corporate which has low earning management practice has less pressure to disclose a better CSR quality if compared to corporate which has an aggressive earning management.

Research by Ran et al. (2015) showed that proportion of women which is larger in the structure of supervisory board had the effect on supervision effectiveness in the management. The research was also supported by research by Tantri and Sholihin (2012)which analyzed, gender as moderative variable between earning management and corporate governance which showed that the presence of women in the board of director (BoD) has significant effect on the decrease of earning management. From the explanation above, we hypothesize:

**H$_3$:** More proportion of female independent supervisory board weakens the positive relationship between earnings management and quality of CSR Disclosure.

Special skill became one of the factors which affecting supervisory board's ability in conducting supervisory function. Skill in accounting, financial, business, and law are few of skills which relevant with supervisory function (Ran et al., 2015). Research by Xie et al. (2003) found that independent supervisory board which had background of accounting education had the more ability in conducting supervision, so it limited the earning management action. That research also had the result that independent supervisory board with accounting and financial skills can identify effectively if there was a suspect in manipulating the financial report, and earning management practices, so it increased the excellence, justice, and the completeness of financial report disclosure.

Similar research was also done by Ran et al. (2015) who analyzed the characteristics of supervisory board on accounting information quality in China. The research identified the bigger proportion of the supervisory board with the accounting, finance, and business education background would create better skills in conducting supervision on the management. From the research can be concluded that the proportion of independent supervisory board which has higher education background and special skill of accounting and financial would decrease the earning management practice. Companies with low earning management did not have big tendency in disclosing the CSR information with better quality. From the explanation above, the hypothesis formulated is:

**H$_4$:** More proportion of independent supervisory board with financial skills weakens positive relationship between earnings management and quality of CSR Disclosure.

## Research Methods

### Sample and Data

The samples of this research are manufacturing companies listed in ASEAN capital market in the year of 2009-2019. Year 2009 was chosen as the starting period of the research because it was the most data collected on that year. Year 2019 was chosen as the closing period of the research because the last data collected was on that year. From Table 1, it can be seen that the total of the initial samples was 17.644, consists of 1604 companies within 11 years of research. The usable data however were 242 which came from 36 companies from 5 countries: Indonesia, Malaysia, Singapore, Thailand, dan Philippines.

ASEAN countries have big involvement on social, economics, and environmental activities through their participation to the program which held by United Nations which is SDGs (Sustainability Development Goals). Therefore, this research also to observe the result before the SDGs were formally established (period year 2009-2014) and after SDGs were formally established (period 2015-2019). Manufacturing sector was chosen as research object because it is the most influential industry in ASEAN. As reported from the online news The ASEAN Post, manufacturing sector became one of the main factors of ASEAN economy growth (The Asean Post, 2019). Moreover, the involvement of ASEAN in extra-regional trade transaction also strengthens its position as the global manufacture central (The Asean Post, 2019).

This research used Thompson Reuters and Osiris database. The data was used to get the corporate's financial activity's overview and other activities which conducted by the corporate, such as proportion of independent supervisory board, proportion of female independent supervisory board, and proportion of independent supervisory board with special skill in the financial field. The document was processed by using Microsoft Excel as data processor instrument and STATA 13 to find the accurate final result. This research used unbalanced panel data, which was cross sectional observation unit with the amount of different time series. Unbalanced panel data was used because the lack of data availability and the possibility in adding the number of research observations. The research sample is illustrated in Table 1.

**Table 1.** Research Sample

| | |
|---|---|
| Initial Data | 17.644 |
| Company with accounting period which finished other than on 31 December | (6.431) |
| Company with accounting period which finished on 31 December | 11.213 |
| Company which does not provide complete data for the research purpose | (10.971) |
| Final data to be analysed (sample) | 242 |

### Variables and Measurement

Earnings management is an independent variable of this research. The variable was proxied through discretionary accrual and measured using Modified Jones model. This model has been used by previous researchers to measure the level of earning management. Some of them are such as research by Moratis and Egmond (2018) which tested the CSR relation, earning management, and the effect on industry, the other research by Gras-Gil et al. (2016) which related to CSR influence on earning management, and lastly research by Chih et al. (2008) about the relation of CSR, investor protection, and earning management.

Dechow et al. (1995) has tested various methods in measuring earning management with accrual model and stated that Modified Jones model was the best model to showed the earning management level. Similar result was mentioned by Velury (2003) that Modified Jones Model has proven to be stronger in detecting earning management. The accrual total of corporate *i* will be separated as non-discretionary accrual and discretionary accrual. The level of discretionary accrual showed the accrual level of earning manipulated result which being conducted by the management. Below is the steps in calculating the level earning management.
Determining coefficient from regression of accrual total

$$TAC_{i,t}/A_{i,t-1} = \beta_0 + \beta_1 (\Delta REV_{i,t}/A_{i,t-1}) + \beta_2 (PPE_{i,t}/A_{i,t-1}) + \varepsilon \quad (1)$$

The total of accrual is the accrual value which gained from income before extraordinary items minus cash flow from the operation activity. Regression technique was used to find the coefficient value $\beta_0$, $\beta_1$, dan $\beta_2$. The coefficient value will be used to calculate *non-discretionary accruals.*
Calculating *Non-discretionary accruals* (NDCA)

$$NDCA_{i,t} = \beta_0 + \beta_1 [(\Delta REV_{i,t} - \Delta AR_{i,t}) / A_{i,t-1}] + \beta_2 (PPE_{i,t} / A_{i,t-1}) \quad (2)$$

NDCA calculation was done by entering coefficient β0, β1, and β2 which received from calculation 1.
Determining *Discretionary Accruals*

$$DACC_{i,t} = (TAC_{i,t} / A_{i,t-1}) - NDCA_{i,t} \quad (3)$$

**Note:**
$TAC_{i,t}$ = Accrual total corporate *i* in year *t*
$A_{i,t-1}$ = Asset total corporate *i* at the end of year *$t_{-1}$*
$\Delta REV_{i,t}$ = Earning changes corporate i in year t minus the income in year $t_{-1}$
$\Delta AR_{i,t}$ = Account receivable corporate i in year t minus the income in year $t_{-1}$
$PPE_{i,t}$ = Bruto of Property, Plant, and Equipment corporate i in year t
$DACC_{i,t}$ = Discretionary Accruals corporate i in year t
$NDCA_{i,t}$ = Non-discretionary Accruals corporate i in year t

Dependent variable in this research was quality of CSR Disclosure. This variable was proxied through items which constructed sub pillar CSR strategy which taken from Thomson Reuters Database. There were 12 constructing of sub pillar CSR strategy which reflected the CSR quality that is CSR sustainability committee, Integrated strategy in Management Discussion & Analysis*,* Global compact signatory, Stakeholder engagement, CSR sustainability reporting, GRI report guidelines, CSR sustainability report global activities, CSR sustainability external audit, CSR sustainability external auditor name, ESG reporting scope, ESG period last update data, and UNPRI signatory.

Quality of CSR disclosure is measured by CSR score by displaying the grading item in the each corporate. CSR score is score resulted from calculation of Thompson Reuters database. CSR strategy was chosen as proxy of quality of CSR Disclosure because CSR strategy was a method to achieve certain quality of CSR reporting so to make sure the credibility among the information receiver.

The measurement of independent supervisory board is using Proportion of INED (PINED) which is independent supervisory board percentage on the entire corporate supervisory board (Jaggi et al., 2009).

$$\textit{Proportion of INED} = \frac{\textit{Independent supervisory board}}{\textit{number of supervisory board}} \text{ x } 100$$

Measurement of proportion of female independent supervisory board used female independent supervisory board percentage on the entire corporate supervisory board. This measurement was used by Ran et al. (2015) in its research to find proportion of female independent supervisory board in the structure of corporate supervisory board.

While proportion of independent supervisory board with special skill in the financial field was measured by using independent supervisory board with special skill in the financial field percentage which compared to *independent supervisory board* with general skill (has no education background of financial). Research by Ran et al. (2015) used the same measurement to calculate accounting background of the supervisory board.

### Controlling Variables

This research used four controlling variables, which are corporate size, Return on Assets (ROA), leverage level, dan corporate governance structure.

The corporate size has the effect on the quality of CSR disclosure and the increase of corporate's reputation (Sobol & Farrelly, 1988). The reason which supports this relationship is larger corporation generally has a lot of funds, so they can conduct CSR practices with better quality in responding to stakeholders' expectation. The corporate size was measured by using Corporate assets total log.

The level of return on assets which calculated through ROA was used to control profitability and corporate's performance (Kim et al., 2012). Cochran and Wood (1984) observed the correlation between CSR and financial performance and stated that ROA has higher sensitivity towards manipulation practice by management. Manager can use the accrual earning management to influence ROA positively. ROA is calculated by using comparison of net income and total assets.

Leverage indicated the influence of debt contracting on earning management. Sweeney (1994) stated that corporate which has high leverage usually has aggressive earning management. Level of leverage form a corporate is calculated by comparing the debt total and equity total.

Corporate governance structure is a control variable in this research. Corporate governance structure is divided into two models, one-tier system and two-tier system. The measurement of this variable used dummy variable, which '0' for corporate from a country that follows one-tier system dan '1' for corporate from a country that follows two-tier system.

### Hypothesis Testing

Based on the formulated hypothesis previously, this research used two models of regression to test the hypothesis. Model 1 is to test H1 while model 2 is to test H2 until H4. Based on the regression model choice, the result received best recommendation hypothesis model 1 which was random effect model and hypothesis model 2 which was fixed- effect model.

Model 1 to test Hypothesis H1

$$CSRQD_{it} = \alpha_0 + \alpha_1 EM_{it} + \alpha_2 SIZE_{it} + \alpha_3 ROA_{it} + \alpha_4 LEV_{it} + \alpha_5 TIER_{it} + \varepsilon_{it}$$

Model 2 to test Hypothesis H2, H3, and H4

$$CSRQD_{it} = \alpha_0 + \alpha_1 EM_{it} + \alpha_2 PINED_{it} + \alpha_3 GENDER_{it} + \alpha_4 SKILL_{it} + \alpha_5 EM_{it}{*}PINED_{it} + \alpha_6 EM_{it}{*}GENDER_{it} + \alpha_7 EM_{it}{*}SKILL_{it} + \alpha_8 SIZEit + \alpha_9 ROA_{it} + \alpha_{10} LEV + \alpha_{11} TIER_{it} + \varepsilon_{it}$$

**Note:**

$EM\_Abs_{it}$ = Earnings Management in year t
$CSRQD_{it}$ = Corporate Social Responsibility Quality Disclosure in year t
$PINED_{it}$ = Proportion of Independent Supervisory Board in year t
$SIZE_{it}$ = Size in year t

$ROA_{it}$ = Return on Assets in year t
$LEV_{it}$ = Leverage in year t
$GENDER_{it}$ = Proportion of Female Independent Supervisory Board in year t
$SKILL_{it}$ = proportion of Independent Supervisory Board with Special Skill in the financial field in year t
$TIER_{it}$ = Structure of Corporate Governance in year t

Classical assumption test which consists of normality, multicollinearities, and heteroscedasticities tests were conducted as prerequisite for regression test. The result of normality and heteroscedasticities test in the hypothesis model 1 and 2 showed that research model was indicated that there were normality and heteroscedasticities problems. It can be seen in Table 2, that Prob>chi$^2$ was less than $\alpha$ = 0,05. The result showed that research model was indicated to have normality problem. The data distribution abnormality caused the research variables variant not in accordance with the basic model and resulted an inefficient estimation. Table 3 showed the result of heteroscedasticities test which showed that Prob > chi$^2$ produced was 0,0000. The value was not larger than $\alpha$=0,05 so it can be concluded that the research model was indicated to have heteroscedasticities problem. According to Lomax (1989) and Wooldridge (2013), to fulfill the data panel classic assumption, the data distribution abnormality problem and heteroscedasticities can be solved through Generalized Least Squares (GLS) estimator.

**Table 1.** Normality Testing Result

| Residual | Model 1 | Model 2 |
|---|---|---|
| Pr (Skewness) | 0.2190 | 0.9149 |
| Pr (Kurtosis) | 0.0000 | 0.0000 |
| Adj Chi$^2$ | - | 32.32 |
| Prob>chi$^2$ | 0.0000 | 0.0000 |

**Table 2.** Heteroscedasticities Testing Result

| CSRQD | Model 1 | Model 2 |
|---|---|---|
| Chi$^2$ | 446.18 | 21090.66 |
| A | 0.05 | 0.05 |
| Prob > chi$^2$ | 0.0000 | 0.0000 |

## Results and Discussions

Table 4 shows the results of the statistical tests. In this table, it can be seen that the relationship between EM_Abs and CSRQD was negative but insignificant. It showed that statistically, the earning management practice did not affect the quality of CSR disclosure. The result did support this research which stated earning management practice had positive effect on the quality of CSR disclosure. However, based on the previous research related to quality of CSR disclosure, earning management had significant effect on quantity of CSR disclosure. Research by Prior et al. (2008) resulted the positive relationship between earning management and CSR disclosure. Research related CSR quantity was also conducted by Gao and Zhang (2015) which resulted negative association between earning management and CSR disclosure in 2022, corporates in period of 17 years.

The result of the statistic test which did not support H1 possibly was caused by the lack of observations used in this research and the low correlation value of research variable. The lack of samples used enlarged the possible occurrence of type 2 error, fail to reject $H_0$, but the $H_0$ was not necessarily true. Research related to earnings management and quality of CSR disclosure, as far as the research observed, it has never been done before and the proxy of CSR strategy has never been done as proxy of quality of CSR disclosure. However, the items which constructed sub pillar CSR strategy showed the disclosure guarantee standard and a method to achieved certain quality for CSR reporting so it assured the credibility among the information receiver.

**Table 3.** Estimation result using GLS

| Variable | Model 1 | | | | Hypothesis Model 2 | | | |
|---|---|---|---|---|---|---|---|---|
| | Coeff | Std. error | t-value | p-value | Coeff | Std. Error | t-value | p-value |
| EM_Abs | -8.79 | 6.98 | -1.26 | 0.208 | | | | |
| SIZE | 9.56 | 4.84 | 1.97 | 0.049* | | | | |
| ROA | 0.85 | 0.231 | 3.71 | 0.000** | | | | |
| LEVERA-GE | 0.09 | 0.038 | 2.44 | 0.015* | | | | |
| TIER | 15.7 | 4.50 | 3.48 | 0.000** | | | | |
| PINED | | | | | 1.098 | 0.22 | 4,99 | 0.000** |
| GENDER | | | | | 0128 | 0.29 | 0,44 | 0.663 |
| SKILLS | | | | | -0.401 | 0.14 | -2,87 | 0.004** |
| EM_PINED | | | | | -1.448 | 0.41 | -3,49 | 0.000** |
| EM_GENDER | | | | | -0.967 | 0.73 | -1,32 | 0.187 |
| EM_SKILSS | | | | | 0.744 | 0.39 | 1 | 0.059 |
| Cons | -67.23 | 46.57 | -1.44 | 0.149 | 104.3 | 49.12 | -2,12 | 0.034 |

note:
Sign * and ** showed the significance on the degree of 5% and 1%
CSRQD : Corporate Social Responsibility Quality Disclosure
EM_Abs : Earnings Management Absolute Value
TIER : Corporate Governance Structure; 0 – one tier system; 1- two tier system
PINED : Proportion of Independent Supervisory Board

The interaction of EM_PINED in the model 2 statistically showed the negative coefficient and significantly influence the earnings management and quality of CSR disclosure in the degree of significance 1%. From that result, it can be concluded that H2 was supported. The results show, the bigger the proportion of independent supervisory board in the corporate weakens the relationship between earning management and quality of CSR disclosure. This result was in line with research done by Jaggi et al. (2009)which showed that statistically big proportion of independent supervisory board will help to minimize the accrual earning management which is possibly done by the management.

The interaction of EM_GENDER in model 2 showed negative coefficient and insignificant moderating the relationship between earning management and quality of CSR disclosure. The statistic result did not support H3 in this research model. Female proportion in supervisory board structure was not proven statistically moderating the relationship between earning management and quality of CSR disclosure. Statistic result which did not support possibly caused by the lack of observation and there were many 0 values in the collected data. 0 value showed that there were no women in the composition of supervisory board. The lack of research observation caused the chance of type 2 error to happen more. Too many 0 values in the research result also made the data became too humogen and influence the research result.

Coefficient value and p-value of the interaction between EM_SKILLS in model 2 showed positive and insignificant influencing the earning management and quality of CSR disclosure. From the results, H4 was not supported in this research. Proportion of independent supervisory board with special skill in the financial field statistically did not moderate the relationship between earning management and quality of CSR disclosure. The unsupported hypothesis was possibly caused by the lack of research observation. The lack of observation enlarged the occurrence of type 2 error, which received $H_0$ and rejected $H_a$, but the $H_0$ was not necessarily true.

**Additional Test**

Additional test was done to find out the result before and after SDGs were formally established by UN. Research sample was divided into 2: period 2009-2014 (before SDGs was formally established) and period 2015-2019 (After SDGs was established formally).

**Tabel 4.** Estimation result before and after SDGs in the hypothesis model 1

| Variable | Before SDGs | | | | After SDGs | | | |
|---|---|---|---|---|---|---|---|---|
| | Coeff | Std. Error | t-value | p-value | Coeff | Std. Error | t-value | p-value |
| EM_Abs | -29.583 | 10.520 | -2.81 | 0.005* | 2.086 | 9.387 | 0.22 | 0.824 |
| SIZE | 13.585 | 6.143 | 2.21 | 0.027* | 8.655 | 7.583 | 1.14 | 0.254 |
| ROA | 1.292 | 0.327 | 3.94 | 0.000** | 0.632 | 0.320 | 1.97 | 0.048* |
| LEVE-RAGE | 0.324 | 0.052 | 0.62 | 0.534 | 0.119 | 0.055 | 2.18 | 0.030* |
| TIER | 17.730 | 5.825 | 3.04 | 0.002** | 11.183 | 6.796 | 1.65 | 0.100 |
| Cons | -102.96 | 61.53 | -1.72 | 0.165 | -57.63 | 72.06 | -0.80 | 0.364 |

Note:
The * and ** showed significance on the degree 5% and 1%.
CSRQD : Corporate Social Responsibility Quality Disclosure
EM_Abs : Earning Management Absolute Value
TIER : Corporate Governance Structure; 0 - single-level system; 1- two-level system
PINED : Proportion of Independent Supervisory Board

**Table 5.** Estimation result before and after SDGs in model 2

| Variable | Before SDGs established | | | | After SDGs established | | | |
|---|---|---|---|---|---|---|---|---|
| | Coeff | Std. Error | t-value | p-value | Coeff | Std. Error | t-value | p-value |
| EM_Abs | -52.136 | 47.248 | -1.10 | 0.270 | 45.431 | 43.493 | 1.04 | 0.296 |
| SIZE | 15.185 | 5.893 | 2.58 | 0.010** | 8.066 | 7.429 | 1.09 | 0.278 |
| ROA | 1.364 | 0.313 | 4.35 | 0.000 | 0.721 | 0.294 | 2.45 | 0.014** |
| LEVERA-GE | 0.060 | 0.050 | 1.19 | 0.234 | 0.133 | 0.053 | 2.51 | 0.012** |
| TIER | 23.564 | 7.116 | 3.31 | 0.001* | -3.018 | 8.528 | -0.35 | 0.723 |
| PINED | 0.568 | 0.300 | 1.89 | 0.059 | 1.423 | 0.320 | 4.45 | 0.000** |
| GENDER | -0.036 | 0.550 | -0.07 | 0.947 | 0.132 | 0.373 | 0.36 | 0.722 |
| SKILLS | 0.017 | 0.203 | 0.09 | 0.930 | -0.563 | 0.256 | -2.20 | 0.028** |
| EM_PINED | -0.096 | 0.602 | -0.16 | 0.873 | -1.961 | 0.625 | -3.14 | 0.002* |
| EM_GENDER | -1.442 | 1.288 | -1.12 | 0.263 | -0.695 | 0.889 | -0.78 | 0.433 |
| EM_SKILSS | 0.527 | 0.557 | 0.95 | 0.344 | 0.840 | 0.560 | 1.50 | 0.134 |
| Cons | -148.79 | 62.41 | -2.38 | 0.017 | -84.20 | 76.58 | -1.10 | 0.272 |

Note:
The * and ** showed significance on the degree 5% and 1%.
CSRQD : Corporate Social Responsibility Quality Disclosure
EM_Abs : Earning Management Absolute Value
TIER : Corporate Governance Structure; 0 - single-level system; 1- two-level system
PINED : Proportion of Independent Supervisory Board

From Table 5 it can be seen that before SDGs was formally established, the relationship between earnings management and quality of CSR disclosure was statistically negative and significant at 5%. It means that before SDGs was formally established by UN, earnings management which was conducted by the corporate was inversely proportional with quality of CSR disclosure. The higher earnings management conducted by a corporate, the lower the quality of CSR disclosure of that corporate. The conclusion was not in line with the hypothesis which proposed in this research. However, it can be concluded statistically that before SDGs was formally established by UN, manufacturing companies which listed in ASEAN capital market did not have big intensity in paying attention on the items to increase quality of CSR disclosure and it is a form of legitimacy towards stakeholders.

After SDGs were formally established, the table shows that earnings management had no effect on quality of CSR disclosure. It proved that the involvement of ASEAN countries on social, economy, and environmental programs did not have any effect on how a corporate run its activities and quality of CSR disclosure as to cover their earning management.

Through Table 6 before SDGs was formally established, moderation variable, characteristic of independent supervisory board which consisted of EM_PINED, EM_GENDER, and EM_SKILLS had no effect on earning management and quality of CSR disclosure. It proved that before the existence of social, economy, and environmental programs which initiated by UN, proportion of independent supervisory board did not moderate the relationship between earning management and quality of CSR disclosure.

After SDGs was established formally, only one moderation variable remained, which was EM_PINED. This result statistically showed that after the involvement of ASEAN countries on social, economy and environmental programs, the companies considered bigger proportion of independent supervisory board to minimize the earning management so the CSR disclosure would be disclosed according to its real quality.

## Conclusion

There were two objectives of this research. The first one is to test the effect of earnings management practices on quality of CSR disclosure. Earnings management practice used in this research is accrual earnings management which is represented by discretionary accrual and is measured using Modified Jones Model. Quality of CSR disclosure is proxied by CSR strategy and is measured using CSR score. The results show that the relationship between earnings management and quality of CSR disclosure is negative and insignificant. It shows that the first hypothesis of this research is not supported. Earnings management practice has no relationship with quality of CSR disclosure. However, based on the previous research related to quantity of CSR disclosure, earnings management has positive effect on CSR disclosure.

The second objective of this research is to test the moderating effect of the characteristic of independent supervisory board which consists of proportion of independent supervisory board, proportion of female independent supervisory board, and proportion of independent supervisory board with special skill in the financial field on the relationship between earnings management and quality of CSR disclosure. From the three characteristics, only one characteristic which moderates the relationship between earnings management and quality of CSR disclosure, namely the proportion of independent supervisory board (PINED). Bigger proportion of independent supervisory board in the corporate is able to weaken the relationship between earnings management and quality of CSR disclosure. Supervision function by independent supervisory board in minimizing the earnings management practices is able to run effectively if the proportion of independent supervisory board in the corporate is bigger. Corporate with low earnings management did not have big tendency in disclosing CSR as the form of legitimacy to stakeholders as the effort to cover the earnings management practices.

Additional tests show that the involvement of ASEAN countries to social, economy and environmental programs did not really affect the way a corporate to process its quality of CSR disclosure to cover the earnings management. Other than, after SDGs was formally established, the companies considered more on the bigger number of independent supervisory board as an effort to decrease earning management practices.

This research had several limitations. First, the focus of this research was limited to only manufacturing companies which listed in ASEAN capital market in the period of 11 years. The next research' focus can be expanded on other industrial sectors and add the period range so the result can be more representative. Second, the total of observation in this research were considered insufficient, because of the data availability. The insufficient number of observations conducted caused this research to use unbalanced panel data method with gap to widen the research observation. Therefore, the next research should consider more about the availability of research data, so it can gain the ideal sample amount. Third, the earnings management tested in this research was limited to accrual earnings management, while earnings management can also be done using corporate's real activities. Therefore, the next research shall widen the earnings management detection on corporate's reals earning management. Lastly, CSR strategy, which is a proxy form quality of CSR disclosure, apparently was not owned by the several companies which listed on ASEAN capital market, so the dependent variable data was lacking. The next researcher shall use CSR strategy by considering the availability of the proxy mentioned on the research object and add other proxy of quality of CSR disclosure.

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