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Earnings Management and Annual Report Readability: The Moderating Effect of Female Directors

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Abstract: The purpose of this study is to examine the influence of earnings management on the readability of annual reports while also examining the moderating role of a female director. In particular, the readability of a company's annual report will be seen from the management perspective using the FOG index on the annual reports of companies listed on the Indonesia Stock Exchange during 2015–2018 (excluding the financial sector), with a total sample of 996. This research confirms that companies that conduct earnings management can make complex company annual reports that are difficult to read as these companies tend to hide earnings management practices. Thus, the users of annual reports will find it difficult to identify these practices. This study confirms the mathematical theory of communication that annual reports are a communication tool for companies and, therefore, must be free from financial manipulation such as earnings management because this action will give a bad signal. Moreover, the moderating effect of female directors was not proven. This implies that female directors in Indonesia had not been able to moderate the readability of annual reports; one possibility might be due to the composition of female directors, which was relatively small.

Keywords: female directors; earnings management; annual report readability

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1. Introduction

The Financial Services Authority (OJK) Regulation Number 29/POJK.04/2016 states that the annual report of public listed companies is an essential source of information for investors or shareholders and serves as one of the primary considerations in making investment decisions and means of supervision for the issuers or public listed companies. Xu et al. (2018) state that the clarity of a company's annual report is important to ensure that investors can generally understand the information in the report when aiming for better decision-making. Therefore, the annual report plays a big role. A company's annual report is a useful communication tool; in addition to numbers, narratives and disclosures, it is essential to illustrate the direction of the company (Dalwai et al. 2021). The annual report is one of the documents available to stakeholders that present a firm's financial performance and other information; therefore, readability is one of the factors that need to be considered. An easy-to-read (readable) annual report has been given the attention of practitioners, academicians, and regulators. Efforts were made by the International Accounting Standard Board (IASB) in October 2017 to release reports on structural changes and the simplification of language in financial reporting so that readability and clarity can increased without losing information. The International Accounting Standards Board states that ineffective financial information can make investors fail to identify relevant information and lose valuable information that is presented in the financial statements, and this will limit investors in making investment decisions. The annual report must be readable so that effective communication is created and stakeholders can understand the meaning of the narrative of the annual report (Hrasky and Smith 2006).

One example of ineffective communication can be seen from annual reports that are not easy to read. Scott in Colquhoun (2018) reviewed the annual reports of US companies and found that companies facing litigation presented an annual report that was 8.8%

unclear (foggier); this implied that one of the annual report factors became difficult to read because the company was in trouble or that certain matters were hidden by the company. Information and negative actions by company managers can not only be aimed at hiding information, but managers can also make reports (texts) more challenging to read or use manipulative language; the adverse action was similar to earnings management (Ajina et al. 2016). This indicated that when company managers practice earnings management, they tend to present annual reports that are unreadable because the managers try to make it difficult for investors to identify the earnings management activities undertaken.

Earnings management is a practice undertaken by managers to achieve the desired profit levels of the company. Good corporate governance should be able to minimize earnings management, as stated by Gavious et al. (2012). Corporate governance cannot be separated from gender diversity; every company has male and female gender leaders. Liu et al. (2016) have stated that men and women have different risk perceptions due to inherent genetic differences and that more women are risk-averse than men. The composition of women in senior positions in companies has increased, especially in Indonesia. According to a survey conducted by Grant Thornton in 2016, 36% of senior positions in companies are held by women. It shows that developing countries have begun to outperform developed countries in terms of leadership diversity (Priherdityo 2016).

Gender diversity should benefit companies, and the female presence can reduce earnings management actions and not only reduce earnings management. However, Clatworthy and Peel (2013) show that companies with a more significant female presence on board will produce better reports and be more disciplined. This study was in line with Ginesti et al. (2018), who proved that women have a positive influence on the transparency of annual reports produced by companies; in other words, the annual reports produced are readable because women are more effective in carrying out company-related activities. The presence of women indirectly indicates that women can influence company performance and the quality of the report's results. This is in line with Fan et al. (2019), who stated that women are more ethical than men in their behavior, professional judgment, and monitoring.

The quality and credibility of firms' financial and non-financial reporting is a fundamental issue that has gained increasing interest from researchers in recent years; this is because of the importance of information in financial reports for investors (Ghaleb et al. 2021). Some previous studies, such as Ajina et al. (2016), found that companies that conducted earnings management produced more unreadable annual reports. Richards and Van Staden (2015) investigated the implications of the implementation of IFRS on the readability of annual reports in New Zealand and found that IFRS adoption reduced the readability of the annual reports.

Lo et al. (2017) found that companies that conduct earnings management produce more unreadable annual reports; this study also added female directors as a moderating variable that influences earnings management and the readability of annual reports. The readability of the annual report is important for further research; according to Gosselin et al. (2021), corporate disclosure readability involves a variety of actors (managers, investors, stakeholders, society, etc.). Besides that, readability can evaluate the usefulness of the information presented and can identify complex disclosures caused by obfuscation from managers. The objective of this study is to examine the influence of earnings management on the readability of annual reports while also examining the presence of female directors, who will weaken the relationship between earnings management and annual report readability, using (1) the mathematical theory of communication, which is one of the examples of communication theory for accounting, and (2) gender socialization theory, because this theory predicts both men and women have different views, values, and attitudes in the workplace. Women tend to have a responsible character at work, so the company's annual reports should be more readable.

Management discussions and analysis reports were chosen in this study because they are reports for shareholders that are accompanied by financial statements; these reports contain the operational and financial activities of the company, things that are the cause of

material changes in financial statements, such as a reduction in asset value. The sample in this study was a public company in Indonesia with a two-tier system; this research identified the role of female directors based on the board of commissioners and the board of directors so that the results of this study can illustrate the actual overall conditions. Moreover, research related to women directors has been carried out in developed countries with a corporate governance system that is different from Indonesia, namely, a one-tier system, while in Indonesia, the system is two-tier. By looking at this case, it is interesting to study the Indonesian context with a sample of female directors. The contribution of this research paper is the examination of the presence of female directors as a moderating variable between earnings management and annual report readability. In addition, Ma and Ma (2017) have stated that emerging markets play a crucial role in the world economy, so, hopefully, this research can provide new findings for investors when making decisions.

This research confirms that earnings management practices undertaken by companies will produce complex and difficult-to-read annual reports; additionally, this study does not support the moderating effect of female directors on earnings management and the readability of annual reports. The paper is divided into six sections, of which this introduction is the first. Section 2 gives a literature review, Section 3 the hypothesis development, and Section 4 the research method. Section 5 discusses the results. Section 6 contains the conclusion, limitations, and further research directions.

2. Literature Review

2.1. Mathematical Theory of Communication

This theory was first introduced by Shannon (1948), who stated that the mathematical theory of communication is one example of communication theories. This theory explains that the problem in communication is the process of delivering a message or information because a certain purpose must exist in the message. So far, communication theory has been used in various fields of science, such as psychology, biophysics, and linguistics. However, the theory of communication for accounting has not been explored as communication theory. This theory can be used to develop certain studies on accounting topics (Bedford and Baladouni 1962) because accounting is a process of communication. Communication has long been known for its financial reporting function. Communication occurs in financial reporting if the meaning intended by the source of information reaches the intended destination (Smith and Smith 1971). Communication can be referred to as mathematics because it can be studied, counted, and measured; this research applies the mathematical theory of communication because this theory emphasizes how precisely and effectively the message or information conveyed can influence subsequent actions. One form of message or information conveyed by the company is in the form of an annual report. Annual reports that are submitted can be both readable and difficult to read, and this will affect the actions of users or stakeholders related to, for example, decision-making. According to Boubaker et al. (2019), reading and interpreting a large body of text requires considerable cognitive efforts on the part of a reader to analyze the information contained in annual reports.

2.2. Gender Socialization Theory

Dawson (1992) explains that in gender socialization theory, both men and women have different views, values, and attitudes in the workplace; this is formed in childhood as feminine and masculine personalities develop in childhood. This gender difference has different results in the output produced, for example, in leadership style, decision-making, and communication skills (Roxas and Stoneback 2004). Some accounting literature has also discussed gender differences in companies; for example, Ibrahim and Tomic (2009) have said that women pay more attention to the needs of the people around them, have a sensitivity to ethical issues, are proven to be more receptive to a code of ethics compared to men, and are not oriented on power. Harris et al. (2019) argued that women are more likely to avoid risk when making investment choices. Gavious et al. (2012) emphasized that gender socialization theory can capture corporate management behavior. In gender

socialization theory, Harris et al. (2019) explained that men prefer to engage in more risky decisions, whereas women will tend to comply with the ethical standards that apply in the company. Some of the characteristics that have been described and found in previous studies have led to the emergence of expectations that the presence of female directors can influence a company's operational activities and decisions to be taken. Harjoto et al. (2020) found that the presence of women in companies influences the readability of CSR reports and helps firms enhance their social objectives. Therefore, this study expects female directors will produce annual reports that are readable compared to male directors because women tend to behave ethically, so they will hide nothing. The use of gender socialization theory in this study is based on the emphasis that there are significant differences regarding the attitudes of men and women; this can be seen in the previous studies that have been described. Some characteristics of women are considered to have a good influence on companies, such as having high ethics and discipline compared to men.

3. Hypothesis Development

Healy and Wahlen (1999) concluded that earnings management is a process where company managers can use their discretion to mislead stakeholders or, in other words, influence their contractual results with the company owners. It can be said that management has a large role in the release of the company's financial information. Thus, there is a need for a vigilant attitude from investors in analyzing the information so that there are no mistakes when investing their funds in the company. In addition, management also plays a large role in the financial statements, where they are alleged to have certain objectives, including wanting to show their personal performance and increase their personal income through the bonuses they will get. If this continues, it will be detrimental to the company itself because uncertain information will result in wrong decision-making.

Corporate governance is an essential factor for shareholders and all stakeholders; with financial scandals, investor confidence will decrease. One of the reasons for the emergence of financial scandals is the desire of company management to maximize their interests (Ajina et al. 2016). If seen from an opportunistic perspective, earnings management actions are processes undertaken by company management to increase their profits and interests; for example, Ross (1977) explains that the agents (management) have personal information that is intentionally not disclosed; this leads to information asymmetry. According to Durana et al. (2021), managers purposely conduct earnings management to achieve the required status of the enterprise, and the consequence is to provide a positive perspective to the public. One of the techniques used by managers is to bias-report earnings in a specified direction using real company activities or discretionary accruals (Sosnowski 2021). This opportunistic action (earnings management) influences the annual report readability produced by the company. Adelberg (1979) found that when placing company management in control of accounting communication processes related to the management's performance, management will tend to hide the failures that have occurred and try to show success. The mathematical theory of communication explains that a problem in communication occurs when, in the process of delivering a message or information, the message does not have the purpose conveyed by the entity. Referring to previous studies, a company's annual report, which is expected to be objective and impartial, must be free from manipulative actions performed by the management. Therefore, any manipulative actions conducted by the management will influence the readability of the reports.

Lo et al. (2017) found that companies that manipulate earnings, both in the previous year and the current year, produce complex and complicated management analysis and discussion reports. Ajina et al. (2016) found that companies that were proven to conduct earnings management had the highest FOG index values or low readability of their analysis reports and management discussions; this confirmed that when managers see a decrease in results, they will increase the complexity of the annual report. Earnings management actions can be categorized as the cheating or lying actions of the company's management because it creates a difference between the actual performance and the re-

ported performance. Moreover, earnings management also violates the company's code of ethics. Companies that are proven to conduct earnings management will produce reports that are more complex and complicated. The reports are difficult to read as, according to Hancock et al. (2008), the truth is more accessible compared to lies, and liars will produce more words during communication. Based on the previous discussion, the hypothesis in this study is:

Hypothesis 1 (H1). *Earnings management reduces the readability of annual reports.*

The board of directors is a corporate governance mechanism that influences the process of decision-making. The functions of the board of directors, such as appointing an audit committee or deciding on the directors, will increase the accuracy of the accrual estimate that is made by the managers; if managers have the incentive to deviate from fulfilling or exceeding the revenue benchmarks in the previous year, an effective board can control the tendency of these managers (Srinidhi et al. 2011). Corporate governance mechanisms such as dispersed ownership and audit committee size also result in easy-to-read annual reports (Dalwai et al. 2021). Gender diversity or differences in behavior between men and women follow the gender socialization theory, which emphasizes that both men and women have different views and attitudes in the workplace. Mastella et al. (2021) found that the presence of female directors on the board had a positive relationship with firm performance; hence, it does not rule out the possibility that investors would also prefer companies that are more gender diverse so that they can receive higher yields. Kaplan et al. (2009) said that it seems unlikely that women will act in an immoral way for financial gain. These studies show that women tend not to engage in unethical behavior to get financial rewards. Therefore, it is expected that female directors will lessen manipulative actions that impact the annual report's readability.

Furthermore, Lawrence (2013) argued that the readability of the company's reports or the company's disclosures is essential in reducing information asymmetry and increasing stakeholder perceptions of the company. According to Rjiba et al. (2021), annual report disclosure constitutes an important channel through which managers analyze past performance and communicate future firm prospects to market participants. Roxas and Stoneback (2004), with regards to the gender socialization theory, said that gender differences will produce different outputs, including in terms of communication. Female directors will influence their company's annual report because they are directly involved in the company's management, supporting and assisting in the preparation of the reports, as postulated by Pucheta-mart et al. (2016). Thus, female directors are involved in the delivery of the company's financial information to the market. From the findings of previous studies, it can be concluded that the presence of female directors as a moderating variable can weaken the relationship of earnings management and annual report readability. The hypothesis in this study is:

Hypothesis 2 (H2). *Female directors moderate the effect of earnings management on annual report readability.*

4. Methods

In this study, the population used was all companies listed on the Indonesia Stock Exchange (IDX) from 2015–2018, excluding the financial sector. The data were obtained from Thomson Reuters and the annual reports of the companies. Therefore, after excluding observations without sufficient data to calculate the FOG index, earnings management proxies, missing data, and control variables, the primary sample was reduced from 2232 observations to 996 observations to test the study hypotheses.

The following is a research model that is divided into several equations to answer each hypothesis. Research Model 1 presents a research model for Hypothesis 1, and Research Model 2 presents a research model for Hypothesis 2. The data analysis carried out in this

study was descriptive statistics; descriptive statistics were used to describe the variables (mean, maximum, minimum, and standard deviation). This research used panel regression analysis, and the Hausman test was used to choose between fixed-effect and random-effect models. A significance test was conducted to see the level of significance and direction of the dependent variable. The test carried out was the F-stat test. A model can be considered significant if the F-stat value is less than 10% (marginal), 5%, or 1%.

$$Read_{it} = \beta_1 + \beta_2\ EM_{it} + \beta_2\ FemDIR_{it} + \beta_3\ BoardSIZE_{it} + \beta_4\ LEV_{it} + \beta_5\ SIZE_{it} + \beta_6\ LOSS_{it} + \beta_7\ INDST_{it} + \varepsilon_{it} \quad (1)$$

$$Read_{it} = \beta_1 + \beta_2\ EM_{it} + \beta_3\ FemDIR_{it} + \beta_4\ FemDIR * EM_{it} + \beta_5\ BoardSIZE_{it} + \beta_6\ LEV_{it} + \beta_7\ SIZE_{it} + \beta_8\ LOSS_{it} + \beta_9\ INDST_{it} + \varepsilon_{it} \quad (2)$$

where $Read_{it}$ is the readability of the annual report, EM_{it} is the absolute value of the discretionary accruals, $FemDIR_{it}$ is female directors, $FemDIR*EM_{it}$ is the moderating variable, $BoardSIZE_{it}$ is the total board, LEV_{it} is leverage, and $SIZE_{it}$ is company size. $LOSS_{it}$ is reported minus net income, and $INDST_{it}$ is the control industry. Table 1 indicates the operationalization of the variables in which all the variables are measured.

Table 1. Measurement of the variables.

Variables	Measurement
Female directors	The total number of women on the board of directors is divided by the number of directors
Earnings management	Accrual basis using a model of Kothari et al. (2005)
Annual report readability	Following (Li 2008) regarding readability using the FOG index
Leverage	Total liabilities scaled by total assets
Loss	Dummy variable; 1 if net income is negative (-)
Board size	Total number of board directors
Industry	Dummy variable; if the company is simplified into energy, goods (production), industrials, primary resources, or services, the scores are 1

To determine the effect of the diversity of female directors, this study referred to Ginesti et al. (2018). The first concern is the diversity of boards, so the total number of women on the board of directors is divided by the total number of directors on the company's board of directors. This study measured earnings management on an accrual basis using a model by Kothari et al. (2005); this model modifies and perfects the previous model by Jones (1991) by incorporating *ROA* (return on assets) into the model because it fits and illustrates the effectiveness of company performance. Kothari et al. (2005) added return on assets (*ROA*) to the modified Jones measurement model to maintain the match value of the company's performance with the value of discretionary accruals contained in the accrual value of the company. In addition, research related to discretionary accruals often uses a performance approach; *ROA* is used to measure company performance.

$$\frac{TAC_{i,t}}{A_{i,t-1}} = \propto_0 \left(\frac{1}{A_{i,t-1}}\right) + \propto_1 \left(\frac{\Delta REV_{i,t} - \Delta REC_{i,t}}{A_{i,t-1}}\right) + \propto_2 \left(\frac{PPE_{i,t}}{A_{i,t-1}}\right) + \propto_3 \left(ROA_{i,t-1}\right) + \varepsilon_{i,t}$$

Following Li (2008) regarding readability using the FOG index, this study will use the FOG index in calculating the readability score of the management discussion and analysis report based on the length of the report. The readability index measurement only applies to texts in English; therefore, this study used the English-language section in the disclosure of financial statements.

$$FOG = 0.4 \times (\text{words per sentence} + \text{percent of complex words})$$

The evaluation criteria of the FOG index are the scores obtained: scores of 14–18 mean that the report (text) is difficult to read (unreadable); scores of 12–14 show the ideal (text) report; scores of 10–12 show that the report (text) is acceptable; scores of 8–10 show that the report (text) contains information that is not meaningful. Gosselin et al. (2021) stated that in the accounting literature, the FOG index is one of the most widely used indexes for analyzing annual report readability. The control variables in this study were company size, leverage, loss, board size, and industry, where company size is measured as the natural logarithm of total assets for firm *i* in year t; leverage is measured as total liabilities scaled by total asset loss, the measured dummy variable, which is 1 if net income is negative and board size measured as the total number of board directors. For the industry dummy variable, if the company was simplified into energy, goods (production), industrials, primary resources, or services, the scores are 1.

This research used panel regression analysis; the Hausman test was used to choose between fixed-effect and random-effect models. The results of the Hausman test for the model showed that the random-effect model was more feasible for research models. The multicollinearity test showed a VIF value <10 except for the size variable. To overcome this, treatment was carried out in the form of centering by reducing the value of the SIZE variable with the mean value. After treatment centering was done, the VIF value of size variables had a value of less than 10, and the mean VIF value also dropped, so that all independent variables were free from the multicollinearity problem. Table 2 illustrates the descriptive statistics of all samples.

Table 2. Descriptive statistics.

Variable	Mean	Std Dev	Minimum	Maximum
Readability	19.876	2.69	12.72	32.49
EarnManag	0.058	0.061	0.00011	0.6004
Female on Commissioner	0.12	0.18	0	0.75
Female Director	0.13	0.175	0	0.666
Leverage	0.53	0.25	0.0086	3.02
Size	28.92	1.531	24.56	33.47
Loss	0.210	0.408	0	1
BoardSize Commissioner	4.386	1.71	2	12
BoardSize Director	5.069	1.96	2	18

5. Empirical Results

As shown in Table 2, the average score of discretionary accruals measured using Kothari et al. (2005) was 0.058. Furthermore, concerning the readability level of annual reports in Indonesia, especially in the analysis and management discussion reports, as measured by the FOG index, the average value of the readability level of annual reports was equal to 19,876, indicating that the company's reports were difficult to read. The average number of directors in companies in Indonesia was quite large (18 people), with an average of 12 people on the board of commissioners; however, the presence of female directors in companies in Indonesia was at an average of 13% and 12% for the board of commissioners. This showed that the presence of female directors was still minuscule. This provokes a question of whether these small proportions of female directors have been functioning correctly or not.

In Model 1 as shown in Table 3 regarding the effect of earnings management on the readability of annual reports, the effect was proven to be positive and significant at 10%. This result indicates that when a company carries out earning management, it will produce reports that are difficult to read or complex. Companies that are identified as practicing earnings management will try to increase the complexity of their annual reports so that

the reports become unreadable. Therefore, in the first model, $\mathbf{H_1}$ **was accepted**. This is in line with Bloomfield (2008), who stated that companies with good performance have an easier communication task compared to companies that perform poorly; managers with poor performance tend to compile complex and lengthy annual reports with more words; this is because the managers will try to distract users of the annual report from the bad news by discussing other good news. These results also confirm the mathematical theory of communication, namely, in communicating, there must be a message with a specific purpose. The mathematical theory of communication states that the annual report produced by the company has a purpose that is addressed to users of the annual report; when the annual report prepared by the company becomes unreadable, it is because there are results that are hidden. It can be ascertained that the intentions and objectives of the annual report are not delivered properly and correctly to the users of the annual report. This result is in line with the studies conducted earlier by Ajina et al. (2016) and Lo et al. (2017). Furthermore, this is supported by the latest research from Abshari and Rahman (2020), who examined the effect of real earnings management on the readability of annual reports and found that there is a management motive in presenting annual reports.

Table 3. Hypothesis testing (board of commissioners).

Research Model	Model 1		Model 2	
Variable	**Coefficient**	**P > [t]**	**Coefficient**	**P > [t]**
EarnManag	1.319	0.07 *	1.615	0.06 *
Female on Commissioner	−0.143	0.40	0.045	0.47
FemDir * EM			−3.266	0.28
Leverage	−0.655	0.06 *	−0.658	0.06 *
Size	0.346	0.00 ***	0.348	0.000 ***
Loss	0.247	0.09 *	0.247	0.09 *
BoardSize Commissioner	0.033	0.31	0.032	0.32
N	996		996	
Year	Yes		Yes	
Industry	Yes		Yes	
R^2 within	0.013		0.013	
Prob > chi2	0.0039		0.0060	

*** Significance 1%. * Significance 10%.

Further, testing in Model 2 as indicated in Table 4 regarding the moderating effect of female directors on the board of commissioners toward earnings management and annual report readability was not successful. In other words, the model **rejected H2**. This result was not in line with gender socialization theory. The result was in line with Lara et al. (2017), who stated that in the process of reporting, a company's financial statements would be more effective if there were independent female directors; the sample of this research only looked at the proportion of female directors, so the result was found to be irrelevant. Moreover, the result of this research did not follow the hypothesis because, in Indonesia, the presence of female directors is still low; although the number of female directors in Indonesia has increased, as found in the Grant Thornton survey, it does not yet have a reliable influence on the readability of annual reports; in comparison, the presence of female directors in many other countries has been overwhelming. Similar results were also found for the boards of directors (as can be seen in Table 4). The first hypothesis, that earnings management can reduce the readability of annual reports, was accepted; however, the presence of female directors in the company did not make an impact on the readability of annual reports. As previously explained, this could be due to several factors, such as the low presence of female directors, so that the monitoring and preparation of the annual

report are still dominated by other parties. Size of company proved to have a significant positive effect at the 1% level. This shows that large companies in Indonesia provide annual reports that are difficult to read because they have more complex operational activities. The leverage variable was proven to have a significant adverse effect at the 10% level. This shows that companies with higher debt levels will increase the readability of their annual reports as stakeholders will demand more disclosure from companies that have higher debt levels; hence, the reports can be more convincing. Loss had a significant positive effect at the 10% level; this shows that companies making a loss will provide annual reports that are difficult to read. The value of R^2 within this study illustrates that other independent variables can affect annual report readability; this is a value in line with Ginesti et al. (2018) and Hidayatullah and Setyaningrum (2018).

Table 4. Hypothesis testing (board of directors).

Research Model	Model 1		Model 2	
Variable	**Coefficient**	**P > [t]**	**Coefficient**	**P > [t]**
EarnManag	1.256	0.08 *	1.644	0.07 *
Female on Directors	0.674	0.12	0.868	0.09
FemDir * EM			−2.591	0.28
Leverage	−0.675	0.05 *	−0.685	0.06 *
Size	0.373	0.00 ***	0.375	0.00 ***
Loss	0.241	0.09 *	0.244	0.08 *
BoardSize Directors	0.003	0.47	0.001	0.48
N	996		996	
Year	Yes		Yes	
Industry	Yes		Yes	
R^2 within	0.015		0.015	
Prob > chi2	0.0027		0.0043	

*** Significance 1%. * Significance 10%.

6. Conclusions

This research confirms that earnings management practices undertaken by companies will produce complex and difficult-to-read annual reports. There is a positive significance between earnings management and the readability of annual reports using the FOG index. This result is in line with the studies conducted earlier by Ajina et al. (2016) and Lo et al. (2017). From the result, when companies engage in earnings management practices, they will try to increase the complexity of their annual reports, especially on statements of analysis and management discussion reports, to hide the practices that they have undertaken. Hancock et al. (2008) stated that communicating a lie will be more difficult than the truth as liars tend to use more words. This result is interesting for regulators when reviewing the disclosure of a company's annual report; readability is something that needs further attention.

This study does not support the moderating effect of female directors on earnings management and the readability of annual reports. This result could have been caused by the presence of women directors being limited; the supervision of female directors, especially in the financial reporting process, is still low. It was found in this research that the presence of female directors in Indonesia is still very low and that it has not been able to directly influence annual report readability because the small numbers can be said to have no power, being a minority in the company. Hence, this result was different from previous research conducted in other countries because the other countries had a high presence of female directors who were able to affect or increase the readability of annual reports.

This research is inseparable from its limitations, such as the measurement of annual report readability that only used the FOG index. In further research, other measurements besides the FOG index, such as the BOG index and the Flesch index, can be used. Further research can extend the research year so that it can capture the variation of annual report readability and use other models related to earnings management measurement as additional analysis; the results found can be compared. The use of female director percentages as a sample also had the weakness that not all directors had a direct influence on the company's financial statements; hence, there was a possibility that it was one of the causes of the hypothesis in this research being rejected. Further research can explore the background of female directors, such as their educational background, financial expertise, and work experience. In addition, another factor or independent variable that can be further investigated is the complexity of the company and the company's business strategy.

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